CCHE Agenda

March 1, 2001
Colorado History Museum
Denver, Colorado
9:00 a.m.

I. Approval of Minutes (February 1, 2001)

II. Reports

A. Chair's Report – Nagel
B. Commissioners' Reports
C. Advisory Committee Reports
D. Public Comment

III. Consent Items

A. 2001-2002 Student Financial Aid Budget Parameters - Feagler (15 minutes)
B. 2001 Report on Newly Approved Degree Programs - Chase-Riley (5 minutes)

IV. Action Items

A. Teacher Education Authorization:
   1. Colorado State University - Lindner/Samson (10 minutes)
   2. Fort Lewis College - Lindner/Samson (10 minutes)
   3. Mesa State College - Lindner/Samson (10 minutes)
   4. Western State College - Lindner/Samson (10 minutes
   5. University of Colorado at Colorado Springs - Lindner/Samson (10 minutes)
   6. University of Northern Colorado - Lindner/Samson (10 minutes)
B. Proposed Revisions to FTE Policy - Samson (15 minutes)
C. Northeastern Junior College 2000 Facilities Master Plan - Hoffman/Adkins (10 minutes)
D. University of Colorado at Boulder Facility Master Plan Review - Adkins (20 minutes)

V. Items for Discussion and Possible Action

A. Proposed Changes to Capital Assets Policy Concerning Renovation of Facilities - Adkins (10 minutes)
B. Revisions to Section III, Part D Guidelines for Long-Range Facilities Master Planning - Adkins (10 minutes)

VI. Written Reports for Possible Discussion

A. Report on Out-of-State Instruction - Breckel
B. Concept Papers:
   1. Master of Science (M.S.) in Recording Arts at the University of Colorado at Denver - Kuepper
   2. Bachelor of Science in Liberal Studies at the University of Southern Colorado - Evans/Kuepper

COLORADO COMMISSION ON HIGHER EDUCATION

February 1, 2001
Legislative Services Building
Denver, Colorado

M I N U T E S

Commissioners Present: Raymond T. Baker; Terrance L. Farina; Marion S. Gottesfeld; David E. Greenberg; Robert A. Hessler; Peggy Lamm; Dean L. Quamme; James M. Stewart; and William B. Vollbracht (by telephone).

Advisory Committee Present: Wayne Artis; Tiffany Eberle; Calvin Frazier; and Sandy Hume.

Commission Staff Present: Timothy E. Foster, Executive Director; JoAnn Evans; Jim Jacobs; Ray Kieft; Sharon Samson; and Kathi Williams.

I. Call to Order

The regular meeting of the Colorado Commission on Higher Education was called to order at 10:00 a.m. in Hearing Room A of the Legislative Services Building in Denver, Colorado, by Vice Chair Peggy Lamm.

Action: Commissioner Hessler moved approval of the minutes of the January 9, 2001, Commission meeting. Commissioner Quamme seconded the motion, and the motion carried unanimously.

II. Reports

A. Chair's Report

The Vice Chair, Commissioner Peggy Lamm, reported that Commissioner Nagel was excused absent and Commissioner Vollbracht participated in the meeting by telephone. Commissioner Lamm reported that the Commission and members of the Trustees of the University of Northern Colorado joined for dinner and conversation.

Following the discussion of Agenda Item IV A (Teacher Education Authorization: Adams State College) Commissioner Lamm reported that there are several pieces of legislation which impact higher education. On February 7, the House Education Committee will discuss HB1192 regarding governance of Metropolitan State College of Denver. Commissioner Lamm invited discussion on this particular piece of legislation.

Commissioner Greenberg said it would be inappropriate for the Commission to take action on an item that was not on the agenda.

Ann Rice, Vice Chair of the Trustees of The State Colleges, stated that the Board of Trustees endorsed the effort to defeat House Bill 1192 regarding Metro State College. She summarized the Board's concerns:

- The Board supports a comprehensive study of higher education as envisioned by the 1289 Study.
- There should be discussion of issues affecting role and mission.
- That discussion should include issues such as admissions, institutional naming, graduate education and rural access.
- HB 01-1192 is premature because it puts the issue of governance before the comprehensive study.
- Organizational structure is less important than the function of the institutions and their commitment to students.
- Unintended consequences such as funding, short- and long-term, for all state colleges.
- The Board is extremely proud of what Metro State has done and recommend it remain in the State College system until comprehensive higher education governance discussion transpires.

Debbie Thomas, Assistant Vice President of Communication at Metropolitan State College of Denver, requested that the Commission defer action on this issue at this time because it was not published on the agenda and the institution was unprepared to discuss it at this time.

Executive Director Foster reported that at the subcommittee on governance meeting the governing board and institution were informed the item would be discussed at this meeting.

Commissioner Farina also was uncomfortable that HB 1192 was not on the agenda and he understands Metro's desire to have discussion with the Commission. However, based on the information available at this time and the action of the House Education Committee within the next few days, it is important for the Commission to communicate its position to the Education Committee. Based on the action of the legislature the Commission would be open to a fuller hearing on the subject and the Commission can always take a different position if the testimony so warrants.

Representative Nolbert Chavez discussed his legislation regarding Metropolitan State College of Denver to have an independent governance structure. He suggested the creation of a blue ribbon panel to look at governance of the other three institutions over the next summer and fall.

Action: Commissioner Farina moved that at this time the Commission oppose the proposed legislation HB 01-1192. Commissioner Hessler seconded the motion. The motion carried with a vote of six (6) in favor (Baker, Farina, Hessler, Quamme and Stewart), one (1) opposed (Greenberg) and one (1) abstention (Lamm).

B. Commissioners' Reports

Commissioner Stewart reported that Betsy Hoffman, President of the University of Colorado, recently attended the Colorado Springs economic development and business leaders meeting. It is his opinion that Colorado Springs firmly supports the things that are going on at the University of Colorado at Colorado Springs and in the CU system.

C. Advisory Committee Reports

Wayne Artis, faculty representative, reported that as a follow up of the distance education presentation at the January meeting, a faculty representative has been appointed to the Distance Education Council.

D. Public Comment

Vice Chair Lamm asked for any public comments unrelated to items on the agenda. There were no comments.

III. Consent Items

None

IV. Action Items Action

A. Teacher Education Authorization: Adams State College

Dr. Sharon Samson reported that CCHE has approached teacher education reauthorization as a joint effort with the institutions. She introduced Dr. David Svaldi, Vice President for Academic Affairs at Adams State College.

CCHE, in conjunction with Colorado Department of Education, has been reviewing teacher education programs offered by Colorado colleges and universities. The primary site reviewers include Diane Lindner, Bill Ottey, representing the Colorado Department of Education, Dorothy Snozek, a literacy expert faculty on loan to CCHE, and approximately twenty education experts. The team has completed approximately half of the site reviews and will be forwarding teacher education program authorizations to the Commission for approval in March, April and June.

She described the review process and its emphasis on quality. She confirmed that an important aspect of the quality assessment is the information from the student interviews. Because CCHE's review is quality-driven, Dr. Samson stated that CCHE staff would only bring to the Commission teacher authorization programs that have positive recommendations. If a program does not meet the standards, staff will continue to work with the institution to assure compliance. Statute requires that the Commission review and approve all teacher education programs by June 30, 2000. Programs not reauthorized by that deadline will sunset or the institution may appeal the program's status. Commissioner Greenberg supported this approach by indicating that the Commission wishes institutions to go back to the drawing board if a degree program is not recommended for approved.

Dr. Samson highlighted the evidence that supported authorization for Adams State College's teacher education programs. Adams State not only offers teacher preparation programs on its campuses but offers the elementary education program to community college students enrolled at Lamar Community College, Otero Junior College, and Trinidad State Junior College.

Adams State has redesigned their general education curriculum. It now provides all students with knowledge and skills to:

1. Analyze, draw conclusions, and discriminate between fact and opinion
2. Use reading, writing, and speaking to define and solve problems
3. Recognize, express, and defend points of view
4. Understand history and current events
5. Evaluate of information

6. Understand the scientific processes and conduct scientific investigations
7. Develop critical thinking skills --make connections among history, literature, science and technology

The content of the degree programs is substantive, relevant and interesting. The field experience begins early with faculty supervision.

Adams State's field experience is a three-year intense program. Students are in the field in year two after they demonstrate competence in general education. Dr. Samson stated that staff recommend Commission approve Adams State College's request for teacher education authorization in the following licensure areas: early childhood; elementary education; K-12; art education; K-12 music education; K-12 physical education; and secondary education.

Dr. David Svaldi, Vice President for Academic Affairs at Adams State College, thanked CCHE staff and the review team for their assistance. He attributed the successful transformation to the leadership from the college president, Dr. Gilmore, who made it clear from the start that Adams State would accept no compromises and the reauthorization would be done right. The program has been totally revised and the institution will have 14 partner schools for field experience.

Advisory Committee member Dr. Cal Frazier said that this is probably the first time in decades that teacher-education programs have been reviewed so thoroughly. The school districts in the San Luis Valley were impressed and there is a good feeling about the teacher education reauthorization.

Mr. George Walker stated that he does not believe that standardized test are biased against people of color, the poor and women.

Staff Recommendation:

That the Commission approve Adams State College's request for teacher education authorization in the following licensure areas for the following degree program:

Teacher Education Licensure Level	Degree Program
Early Childhood (added endorsement to El Ed)	Interdisciplinary Studies
Elementary Education	Interdisciplinary Studies
K-12	
K-12 Art Education	Art
K-12 Music Education	Music
K-12 Physical Education	Exercise and Leisure Studies

Secondary Licensure	
Secondary Business	Business
Secondary English	English Speech/Theatre
Secondary Foreign Language	Spanish
Secondary Mathematics	Math
Secondary Science Education	Biology Chemistry Geology
Secondary Social Studies	Social Studies
	Post baccalaureate for all licensure levels

Action: Commissioner Baker moved approval of the staff recommendation. Commissioner Hessler seconded the motion and the motion carried unanimously.

V. Items for Discussion and Possible Action

A. Proposed Revision to FTE Policy

Dr. Samson briefly described the process for developing the new Full-Time Equivalent Policy (FTE Policy) in consultation with the governing boards and institutions before highlighting the issues associated with FTE reporting.

She reported that most states differentiate between undergraduate and graduate FTE and the governing boards are interested in moving toward a system that is nationally comparable. She noted that it is important to explore how an FTE methodology change would be applied in a new funding model. She advised that resolving whether Colorado should differentiate between the way it measures undergraduate and graduate FTE does not impede adopting the new policy.

Dr. Samson clarified the customized workforce training issues, explaining that job entry workforce training is fundable including customized course sections.

Responding to Commissioner Quamme's question, she clarified that section 5.01.03 allows institutions to include interactive television or Internet course credits in FTE counts. The statute prohibits the use of state dollars unless specifically authorized by the Commission. The new policy language allows each institution to choose what is best under Tabor.

She concluded that the staff and the FTE Advisory Committee recommends that the Commission adopt the proposed policy at this time so that the governing boards can modify their reporting systems for the next fiscal year, CCHE can

respond to the 1995 audit recommendations, and, begin work on a new funding model.

Dr. Elizabeth Hoffman, President of the University of Colorado system, encouraged the Commission to support differentiating graduate and undergraduate FTE. The possibility of making 24 hours the graduate equivalent to 30 hours of undergraduate makes it more consistent with other states and recognizes the more intense workload of graduate courses.

Dr. Richard Voorhees, Associate Vice President of Educational Support Services at the Community College System, spoke to the Commission on two points. There is no physical modeling of the dollar flow so there are unknowns. Secondly, the policy lacks definition of a credit hour in terms of clock hours. Dr. Voorhees endorsed full funding of workforce training including courses closed to employees of a single employer. He reported that the community college system is unable to differentiate between entry-level courses and continuing education courses.

Mr. Sandy Hume supported the proposed policy but cautioned against taking action on the FTE definition change and the possible unintended consequences associated with the change.

B. Annual Report on Discontinuance of Academic Degrees with Low Program Demand

There was no discussion on this item.

C. 2001 Report on Newly Approved Degree Programs

There was no discussion on this item.

VI. Written Reports for Possible Discussion

A. Report on Changes to Higher Education Financial Reporting

The Commission accepted the report on Changes to Higher Education Financial Reporting.

B. Report on Degree Program Approvals and Closures

The Commission accepted the report on Degree program Approvals and Closures.

Action: Commissioner Greenberg moved to adjourn the meeting. Commissioner Hessler seconded the motion and the motion carried unanimously. The meeting adjourned at 11:53 a.m.

Colorado Commission on Higher Education (CCHE)
March 1, 2001
Agenda Item II, A

TOPIC: CHAIR'S REPORT

PREPARED BY: RALPH NAGEL

This item will be a regular monthly discussion of items that he feels will be of interest to the Commission.

Colorado Commission on Higher Education (CCHE)
March 1, 2001
Agenda Item II, B

TOPIC: **COMMISSIONERS' REPORT**

PREPARED BY: **COMMISSIONERS**

This item provides an opportunity for Commissioners to report on their activities of the past month.

Colorado Commission on Higher Education (CCHE)
March 1, 2001
Agenda Item II, C

TOPIC: **ADVISORY COMMITTEE REPORTS**

PREPARED BY: **ADVISORY COMMITTEE MEMBERS**

This item provides an opportunity for Commission Advisory Committee members to report on items of interest to the Commission.

Colorado Commission on Higher Education (CCHE)
March 1, 2001
Agenda Item II, D

TOPIC: **PUBLIC COMMENT**

PREPARED BY: **TIM FOSTER**

This item provides an opportunity for public comment on any item unrelated to the meeting agenda. A sign-up sheet is provided on the day of the meeting for all persons wishing to address the Commission on issues not on the agenda. Speakers are called in the order in which they sign up. Each participant begins by stating his/her name, address and organization. Participants are asked to keep their comments brief and not repeat what others have said.

TOPIC: **2001-2002 STUDENT FINANCIAL AID BUDGET PARAMETERS**

PREPARED BY: **GINNY FEAGLER**

I. SUMMARY

This agenda item presents the 2001-2002 Student Financial Aid Budget Parameters. In compliance with states that participate in federal financial aid programs, the Commission annually recommends guidelines for student living expenses (room and board, transportation, books and supplies, personal, and childcare expenses) for use by postsecondary institutions approved to participate in Colorado student financial assistance programs. While the state budget parameters establish a reference point, each institution adjusts these parameters to reflect actual local costs and must use actual data to support their adjusted budget. The institutions file their budgets with CCHE.

In recent years, the Commission adjusted the previous year's budget parameters by the Colorado Price Index (CPI). Every ten years (e.g., 1981, 1991) the Commission reevaluates the individual student budget parameters. This year the staff used published data obtained from Chambers of Commerce (housing), business and industry (health and child care), and colleges and universities (e.g., books)

II. BACKGROUND

Student budget parameters are used by financial aid administrators in determining student eligibility for need-based financial aid. Need-based financial aid (i.e., grants, work-study, and loans) requires a student need analysis. The need analysis is the process of estimating the amount of assistance a student will require, supplementing the resources theoretically available from that student and his or her family. Need analysis has two basic components: (1) the student's cost of attendance which is an estimation of what it will reasonably cost the student to attend a given institution for a given period of time called the **COA**, and (2) an estimation of the ability of the student and his or her immediate family to contribute to that educational cost, commonly called the **expected family contribution**. The expected family contribution (EFC) is obtained by a federally approved formula. The cost of attendance (COA) is a figure determined by institutions. The difference between the COA and the EFC is the amount of eligibility for a need-based student.

CCHE has traditionally provided guidelines and recommendations of statewide cost parameters for institutions to use in defining the COA. The Higher Education Act of 1965 (Section 472) indicates that the cost of attendance be calculated "as determined by the institution." The United State Department of Education (USDE) interpreted the term

"determined by the institution" to mean that the institution has both the authority and responsibility to determine reasonable cost elements, generally from empirical data, i.e., data based on actual institutional experiences and observations, valid student surveys, housing costs norms from a local realty board, etc. In other words, the USDE expects the institutional determination to be based on modifications of state data and adjusted for local economic conditions.

III. STAFF ANALYSIS

At the February 2000 meeting the Commissioners requested that the staff collect primary data to establish the 2001-2002 student financial aid budget parameters since the last survey was completed in 1991. To update the budget parameters, CCHE staff collected information from different sources. Chambers of Commerce were contacted for average rental prices and institutions for costs of books, supplies, parking fees, child care, and board. CCHE collected health insurance data from insurance companies and computer hardware costs from computer industry published cost comparisions. The 2001-2002 student budget parameters are listed below.

Housing Costs:

Housing budgets vary for three groups of students.

For students living in dormitories, the housing parameter is the actual room expense that the campus charges students.

CCHE's financial aid guidelines define the housing budget for students living off-campus as 50% of the average rent for a two-bedroom apartment. CCHE collected rental cost from Denver, Boulder, Colorado Springs and Grand Junction. The data indicated that the average rent of a two-bedroom apartment was $950. CCHE staff added the average utility bill for a two-bedroom apartment ($150) and adjusted it by the recent increase in heating fuels to $200. The rent and utilities totaled $1,150. Following the guidelines, half of that cost ($575) becomes the monthly housing budget parameter for students living off-campus.

For students living with parents, the housing budget is set at $122. This budget parameter does not have a data source to calculate a direct cost to the student so the budget remains unchanged from previous years.

Food Expenses

For students living in dormitories, the food budget parameter is the actual cost of board.

Students living in off-campus housing typically eat the majority of their meals on campus and often purchase meal tickets to pay for their food costs. Therefore, CCHE averaged the board costs for the fifteen public institutions that provide room and board to impute the cost of food purchased on campus. Following this methodology, the average cost of board is $2,601 or a $289 monthly food budget parameter for a student living off-campus.

CCHE's financial aid guidelines assume that food is a shared cost for students who live with their parents. The estimated food costs for a family of four averages $800 per month or $200 per family member. The food cost parameter for this group of students is set at $200 per month.

Local Transportation Expenses Excludes Non-local Transportation

The Financial Aid Guidelines defines local transportation expenses as the cost of owning a bike, using public transportation or sharing the operation of an automobile. CCHE set the monthly local transportation parameter at $85, the cost of a monthly regional RTD pass or a total of $3.25 per day for on-campus parking and shared monthly gas expenses.

Medical Expenses

For institutions that do not have health insurance or medical care funded through student fees, CCHE establishes a maximum health expense parameter of $169 per month. This is based on the average monthly HMO premium for a health plan with a $10 co-pay. The data sources included Aetna, Prudential, Unitedhealthcare and Blue Cross.

Personal Expenses

The financial aid guidelines define personal expenses to include the cost of laundry, dry cleaning, toiletries, clothing, recreation and recreational transportation. Based on typical costs in a college town, a student may expect to spend $14 a month on laundry, $24 on dry cleaning or clothing, $20 on shampoo, toothpaste, and other toiletries, $40 a month for concerts, movies or other campus events, and $10 for transportation. In 2001-02, CCHE set the personal expense parameter at $94 for students living with parents and $108 for all other students. The only difference between the two budgets is that students living with parents do not typically pay laundromat costs.

Books and Supplies

The parameter for books and supplies is $1,100 based upon responses from Colorado institutions, public and private.

Child Care

The range is the actual cost of care per child, per month, up to a maximum of $535 per child per month. This cost is unchanged from the 2000-01 child care parameter based upon responses from Colorado institutions, public and private.

Non-local Transportation

CCHE does not establish this parameter. Institutions may include the cost of plane fare for students who live outside a normal travel range. It is intended to finance two round trips home per year.

Computer Allowance:

The cost of attendance regulations in the federal Higher Education Amendment of 1998 provide for a reasonable allowance for the documented rental or purchase of a personal computer. Institutions may include this cost in their student budget for determining eligibility for state financial aid. With the decrease in hardware prices, few students rent computers. The average cost of a desktop computer is $1,000 and $1,500 for a laptop computer. The data sources include Infotechnology magazine and DELL's brochure listing its products and price list, published January 2001.

Table 1 below shows the Student Budget Base for 2001-2002 for Students Living with Parents, Students Living On Campus and Students Living Off-Campus

Table1: Student Monthly Budget Base for 2001-2002

	Students Living with Parents	Students Living On Campus	Students Living Off-Campus
Housing	$122	Actual	$575
Food/Board	$217	Actual	$289
Local Transportation	$85	$85	$85
Medical	$169	$169	$169
Personal Expenses	$94	$108	$108
Total	***$687***	***$362 +Actual Room & Board***	***$1,226***

The student monthly budget base includes monthly costs typically incurred by all students. Table 2 lists the parameters for the annual cost of books and supplies and discretionary costs that apply to certain students.

Table 2: Supplemental Student Budget Expenses for 2001-2002

	All Students
Books & Supplies Per Year	$1,100
Child Care if appropriate per month	$535
Non-local Transportation	Amount determined by Institution
Computer Allowance	$1,000-1,500

IV. STAFF RECOMMENDATION

That the Commission approve the 2001-2002 Student Financial Aid Budget Parameters.

Appendix A

STATUTORY AUTHORITY

C.R.S. 23-3.3-102 Assistance program authorized-procedure-audits. (3) The commission shall administer the program with the assistance of institutions according to policies and procedures established by the commission.

TOPIC: 2001 REPORT ON NEWLY APPROVED DEGREE PROGRAMS

PREPARED BY: PATRICIA CHASE RILEY

I. SUMMARY

The Commission's Master Plan states that its goal is a market responsive higher education system. Responsiveness includes adapting the degree program mix by identifying unmet need and closing degree programs that no longer are in high demand. The two activities complement each other in the fact that they allow governing boards and institutions to redirect resources to new programs. Excluding vocational certificates and two-year degree programs, the Commission approved nine degree programs in 2000. A total of 32 new baccalaureate and graduate degree programs were approved in the last five years

The Annual Report on Newly Approved Degree Programs monitors the implementation of the new academic programs. It compares the projected enrollment and graduation numbers originally provided by the proposing institution with the actual enrollment and graduation data of the degree program. If a degree program meets its projections during its first five years, its approval status moves from provisional to full approval. The *2001 Report* provides information on all academic degree programs that the Commission has approved within the last five years or that are still operating with provisional status. Enrollment and graduation data are available for those programs that were implemented prior to or during FY 1999-00.

In contrast, the annual Report on Low Demand Programs includes only four-year degree programs that have full program approval. The Commission delegates the authority to the governing boards for monitoring and taking action on degree programs that have been operating five years or more. Reviewing newly approved degree programs until they are fully implemented is part of the Commission's statutory approval responsibility.

In the *2001 Report*, the staff analysis specifically examines the performance of two programs that were implemented in 1995-96, including:

- University of Colorado at Denver: Health and Behavioral Sciences (Ph.D.)
- University of Colorado at Denver: International Business (M.S.)

Staff recommends that the Commission grant full approval status to UCD's Health and Behavioral Science Ph.D and International Business M.S. If the Commission adopts the recommendation, the degree programs will no longer be included in the annual Report on Newly Approved Degree Programs, but will be included in CCHE's annual Low Demand Program Report.

II. BACKGROUND

State law requires the Colorado Commission on Higher Education to approve proposals for new academic degree programs before they are established. In accordance with CCHE policy, the proposing institution provides five-year enrollment and completion projections. The Commission relies on these projections as an accurate assessment of program demand. As part of its degree approval responsibilities, the Commission monitors the enrollment and graduation performance of recently approved programs. In consultation with the Academic Council, CCHE has revised the provisions of the *Policy and Procedures for the Approval of New Academic Programs in State-Supported Institutions of Higher Education in Colorado* as well as the *Review Policy and Procedures for Newly Approved Academic Degree Programs.* As revised, each policy strengthens the role of governing boards and requires them to assume greater responsibility for program review decisions.

III. STAFF ANALYSIS

Currently 32 degree programs are in the post-approval review phase, including two degree programs that were approved in 1994-95, four in 1995-96, seven in 1996-97, eight in 1997-98, two in 1998-99, and nine in 1999-00. At the time of the approval, the governing board provided enrollment and graduation projections to justify the claim that significant need exists in Colorado for the state to support the proposed degree. There is one exception in the approval history – UCCS did not provide projections when it requested approval for the Electrical Engineering Ph.D. degree program. The Commission provisionally approves degree programs subject to their demonstrated ability to meet projections. As part of the approval process, it informs the governing board that the Commission will monitor the program's implementation each year and publish the data. The degree program data are available for the degree programs that were implemented prior to, or during, AY 1999-00 (Attachment A).

The Commission approved four new academic degree programs during AY 1994-95. Two of the four programs admitted the first cohort of students in 1995-96 and therefore, have been operating for five years. According to CCHE policy, these degree programs are subject to Commission review in March 2001 (Attachment B).

Health and Behavioral Sciences (Ph.D.) at University of Colorado at Denver

The University of Colorado at Denver's Ph.D. degree in Health and Behavioral Science has strong enrollment, but graduation is lagging UCD's original expectations. The enrollment patterns do indicate that the Health and Behavioral program will graduate five graduates in two years. Health and Behavioral Sciences' pattern is typical of implementation timeline for doctoral degree programs. Recruiting doctoral students requires a five-year concerted effort to enroll a critical mass of students. National data indicate that the average doctoral student takes seven years to graduate. Since CCHE's follow-up timeframe only covers five years, the enrollment patterns of doctoral degrees sometimes provides a better indicator of successful implementation. Staff analyzed the Health and Behavioral Sciences student

retention patterns and accrued credit hours. The data indicate that the program is moving toward meeting its graduation projections.

Staff recommend granting this degree program full approval.

International Business (M.S.)

The International Business M.S. degree at the University of Colorado at Denver has not achieved its enrollment or graduation projections. The staff does not have great concerns about the enrollment numbers although they are below the original projections provided in 1995. Approximately 58 students have enrolled in the International Business degree program and 37 students have graduated in the last five years.

Staff recommend granting this degree program full approval.

Summary

The governing boards will receive a letter from the Commission indicating the status of its institution's degree programs at the conclusion of the five-year implementation period. The letters will also identify degree programs that are in the second, third, and fourth year of implementation which are performing below the original projections. The letter will remind the governing board that it is the institution's responsibility to report the enrollment and graduation data completely and accurately. To complete the report this year, CCHE staff needed to make over 300 corrections to the data files.

In keeping with CCHE's protocol, the Commission will notify the governing boards of those degree programs approaching the five-year review point. This notification states the Commission expectation for governing boards to take appropriate action, if necessary, before the Commission 2002 Review of Newly Approval Degree Program. The following programs will be in the final year of the follow-up next year:

Cell and Molecular Biology (MS)	Colorado State University
Cell and Molecular Biology (Ph.D.)	Colorado State University
Theatre Arts (B.A.)	Fort Lewis College
Engineering (ME)	University of Colorado at Denver

IV. STAFF RECOMMENDATION

That the Commission approve full degree approval for the following degree programs:

- **University of Colorado at Denver: Health and Behavioral Sciences (Ph.D.)**
- **University of Colorado at Denver: International Business (M.S.)**

Appendix A

STATUTORY AUTHORITY

23-1-107. Duties and powers of the commission with respect to program approval, review, reduction, and discontinuance. (1) The commission shall review and approve, consistent with the institutional role and mission and the statewide expectations and goals, the proposal for any new program before its establishment in any institution.

23-1-108 (8). The Commission shall prescribe uniform academic reporting policies and procedures to which the governing boards shall adhere.

DEGREE PROGRAM APPROVAL REPORT

ACADEMIC DEGREES APPROVED UNDER CCHE ACADEMIC PROGRAM APPROVAL POLICY

Inst	Program	Status	Year 1 fy1996	Year 2 fy1997	Year 3 fy1998	Year 4 fy1999	Year 5 fy2000
UCD	Ph.D. Health and Behavioral Sciences	Projected Enrollment	8	17	25	34	37
		Projected Graduates	0	0	0	5	8
		Actual Enrollment	13	17	24	30	37
		Actual Graduates	0	0	0	3	2
UCD	M.S. International Business	Projected Enrollment	82	83	85	87	88
		Projected Graduates	0	0	5	10	20
		Actual Enrollment	37	56	60	57	63
		Actual Graduates	1	3	11	8	14

DEGREE PROGRAM APPROVAL REPORT

ACADEMIC DEGREES APPROVED UNDER CCHE ACADEMIC PROGRAM APPROVAL POLICY

Inst	Program	Activity Status	fy1996	fy1997	fy1998	fy1999	fy2000
CSU	M.S. CELL & MOLECULAR BIOLOGY 26.0402	Projected Enrollment		2	4	7	7
		Actual Enrollment		6	10	8	10
		Projected Grads		0	0	1	1
		Actual Grads			4	2	1
CSU	PH.D CELL & MOLECULAR BIOLOGY 26.0402	Projected Enrollment		0	2	5	10
		Actual Enrollment		6	7	11	12
		Projected Grads		0	0	0	0
		Actual Grads			0	0	1
CSU	MEE ELECTRICAL ENGINEERING 14.1001 02	Projected Enrollment					5
		Actual Enrollment					19
		Projected Grads					0
		Actual Grads					6
CSU	B.S. ENVIRONMENTAL ENGINEERING 14.1401	Projected Enrollment				25	35
		Actual Enrollment				12	28
		Projected Grads				5	7
		Actual Grads				0	2
FLC	B.A. THEATRE ARTS 50.0501	Projected Enrollment		8	15	22	27
		Actual Enrollment		11	24	47	39
		Projected Grads		0	2	4	7
		Actual Grads		3	5	3	0

DEGREE PROGRAM APPROVAL REPORT

ACADEMIC DEGREES APPROVED UNDER CCHE ACADEMIC PROGRAM APPROVAL POLICY

Inst	Program	Activity Status	fy1996	fy1997	fy1998	fy1999	fy2000
UCB	M.A. EAST ASIAN LANGUAGES & LITERATURE 16.0399	Projected Enrollment			7	15	18
		Actual Enrollment			25	26	32
		Projected Grads			0	0	2
		Actual Grads			4	9	6
UCB	B.S. ENVIRONMENTAL ENGINEERING 14.1401	Projected Enrollment				31	42
		Actual Enrollment				9	40
		Projected Grads				5	8
		Actual Grads				0	2
UCB	PH.D KINESIOLOGY 31.0505	Projected Enrollment			3	6	9
		Actual Enrollment			8	12	19
		Projected Grads			0	0	0
		Actual Grads			0	3	0
UCB	B.A. WOMEN'S STUDIES 05.0207	Projected Enrollment				60	60
		Actual Enrollment				49	42
		Projected Grads				0	8
		Actual Grads				19	19

DEGREE PROGRAM APPROVAL REPORT

ACADEMIC DEGREES APPROVED UNDER CCHE ACADEMIC PROGRAM APPROVAL POLICY

Inst	Program	Activity Status	fy1996	fy1997	fy1998	fy1999	fy2000
UCCS	PH. D COMPUTER SCIENCE 11.0101	Projected Enrollment			10	20	26
		Actual Enrollment			0	6	8
		Projected Grads			0	0	2
		Actual Grads			2	0	1
UCCS	PH. D ELECTRICAL ENGINEERING 14.1001	Actual Enrollment			27	20	24
		Actual Grads			3	2	4
UCCS	B.S. MECHANICAL ENGINEERING 14.1901	Projected Enrollment				36	68
		Actual Enrollment				22	66
		Projected Grads				0	0
		Actual Grads				0	0
UCCS	M.S. MECHANICAL ENGINEERING 14.1901	Projected Enrollment				10	17
		Actual Enrollment				3	10
		Projected Grads				0	0
		Actual Grads				0	0

DEGREE PROGRAM APPROVAL REPORT

ACADEMIC DEGREES APPROVED UNDER CCHE ACADEMIC PROGRAM APPROVAL POLICY

Inst	Program	Activity Status	fy1996	fy1997	fy1998	fy1999	fy2000
UCD	B.A. COMMUNICATION	Projected Enrollment				66	66
	09.0101	Actual Enrollment				344	364
		Projected Grads				54	54
		Actual Grads				65	69
UCD	PH. D DESIGN & PLANNING	Projected Enrollment			5	13	17
	04.0401	Actual Enrollment			5	14	22
		Projected Grads			0	0	0
		Actual Grads			0	0	0
UCD	M.E. ENGINEERING	Projected Enrollment	15	30	45	55	60
	14.0101	Actual Enrollment		13	8	10	9
		Projected Grads		0	6	10	15
		Actual Grads		3	6	9	8
UCD	PH. D HEALTH &	Projected Enrollment	8	17	25	34	37
	BEHAVIORAL SCIENCES	Actual Enrollment	13	17	24	30	37
	30.9999	Projected Grads	0	0	0	5	8
		Actual Grads	0	0	0	3	2
UCD	M.S. INTERNATIONAL	Projected Enrollment	82	83	85	87	88
	BUSINESS	Actual Enrollment	37	56	60	57	63
	52.1101	Projected Grads	0	0	5	10	20
		Actual Grads	1	3	11	8	14
UCD	B.S. PSYCHOLOGY	Projected Enrollment				30	45
	42.1101	Actual Enrollment				0	0
		Projected Grads				5	7
		Actual Grads				11	11
UCD	ED.S SCHOOL	Projected Enrollment					10
	PSYCHOLOGY	Actual Enrollment					0
	42.1701	Projected Grads					0
		Actual Grads					0
UCD	B.A. THEATRE	Projected Enrollment				39	39
	50.0501	Actual Enrollment				85	95
		Projected Grads				12	12
		Actual Grads				3	3
UCHSC	PH.D CLINICAL SCIENCE	Projected Enrollment			3	7	11
	51.1401	Actual Enrollment			2	1	2
		Projected Grads			0	0	0
		Actual Grads			0	0	0

DEGREE PROGRAM APPROVAL REPORT

ACADEMIC DEGREES APPROVED UNDER CCHE ACADEMIC PROGRAM APPROVAL POLICY

Inst	Program	Activity Status	fy1996	fy1997	fy1998	fy1999	fy2000
WSC	B.F.A. ART	Projected Enrollment			90	97	104
	50.0702	Actual Enrollment			7	19	36
		Projected Grads			15	23	26
		Actual Grads			3	8	11

TOPIC: **TEACHER EDUCATION AUTHORIZATION**

PREPARED BY: **SHARON M. SAMSON**

I. SUMMARY

CCHE, in conjunction with Colorado Department of Education, has been reviewing teacher education programs offered by Colorado colleges and universities. The staff has completed the reviews for six institutions. Based on the recommendations from the teacher education review team, staff is recommending approval for teacher education programs offered by:

Colorado State University
Fort Lewis College
Mesa State College
University of Colorado at Colorado Springs
University of Northern Colorado
Western State College.

The attached agenda items summarize the findings and recommendations of the teacher education review team by specific institution and list the degree programs that are recommended for authorization. Teacher education programs that the Commission re-authorizes may admit teacher education candidates effective immediately.

II. BACKGROUND

Most Colorado citizens and policymakers want to improve state schools and the quality of students' education. While parental involvement and support, challenging pre-schools, reduced student-teacher ratios, and improved reading programs help students, the chief factor is a competent teacher. Research has substantiated that teacher quality is the critical component in student success from William Sanders data studies to *What Matters Most: Teaching for America's Future*, and NCSL's February Report, *Teaching in Colorado – An Inventory of Policies and Practices.*

The Colorado Legislature instituted sweeping changes one year ago, requiring teacher education institutions to adopt a performance model for preparing teachers and demonstrate that the graduates of the degree programs possess the content knowledge and have mastered the skills needed to teach. Responding to this legislation (C.R.S. 23-1-121), the Commission adopted a new Teacher Education Policy in March 2000. The policy establishes the requirements for teacher preparation programs offered by institutions of higher education. The key features of the policy include:

- Makes quality the primary driver of teacher education authorization.
- Requires a well-designed curriculum that integrates general education, content knowledge and professional knowledge.
- Increases the number of hours that teacher education candidates spend in the field and the number of hours that faculty spend with the students.
- Develops a strong assessment system for students and to measure the quality of the teacher education program.

Each section of the policy supports the quality goal -- defining performance measures, processes for assessing the quality of teacher preparation programs, and data systems that support broad teacher education accountability to the legislature and the general public. Under this policy, CCHE is responsible to ensure that each program meets the quality standards for content, assessment, and field experience.

TOPIC: **TEACHER EDUCATION AUTHORIZATION: COLORADO STATE UNIVERSITY**

PREPARED BY: **DIANE LINDNER/SHARON M. SAMSON**

I. SUMMARY

CCHE, in conjunction with Colorado Department of Education, has been reviewing teacher education programs offered by Colorado colleges and universities. The staff has completed approximately half of the site reviews and will be forwarding teacher education program authorizations to the Commission for approval in March, April and June.

The agenda item provides an in-depth look at Colorado State University's (CSU) teacher education programs and an evaluation of the quality of the program design and capacity to become a performance-based model. CSU not only offers baccalaureate level programs at different licensure levels, but also offers two award-winning post-baccalaureate programs: an accelerated program for mid-career professionals and a master's level program for individuals with an undergraduate degree related to secondary education.

The staff recommends approving teacher education authorization for Colorado State University's teacher education programs, including:

LICENSURE LEVEL	DEGREE PROGRAM
Early Childhood Education	Human Development and Family Studies
Secondary Education	Agriculture Business Administration Consumer and Family Studies English Language, Literature and Culture Studies French German Spanish Mathematics Biology Chemistry Geology Physics Liberal Arts History Speech Communication Technology Education and Training Natural Sciences

K-12 Education	Art
	Music

*Post-baccalaureate in all of the above

II. BACKGROUND

The on-site visit occurred on October 23 and 24, 2000. Curriculum materials were read by two individuals with higher education and K-12 background, Pat Hagerty, CU - Denver and Cliff Brookhart, UNC. Both individuals are involved in teacher education. The curriculum reviewers read the material and developed questions and areas needing investigation. The site review team met with the readers to discuss their findings and prepare for the visit. The site review team spent two days on the campus of CSU. The review team included:

James Bailey – Assistant Superintendent, Valley RE-1 School District
Cliff Brookhart – Educational Leadership, UNC
Tom Kaesemeyer – Executive Director, Gates Family Foundation
Dick Koeppe – Retired Superintendent
Carol Wilson – Executive Director, Colorado Partnership for Educational Renewal
Bill Ottey – Assistant to the Commissioner, CDE
Dorothy Snozek – CCHE
Diane Lindner – CCHE

III. STAFF ANALYSIS

The strengths of the teacher education programs at CSU include:

- The CSU education faculty advise students to ensure that all students have selected a major, have been assigned advisors as appropriate and have a defined academic plan.
- CSU sets high standards for the admission to teacher education.
- The curriculum design provides an exemplary mix of general education, content knowledge and professional knowledge. The content of general education courses enhances the depth of knowledge provided in the majors.
- Field experiences are an integral part of each professional development course. Excluding observation and experiences required for admission to the program, field experiences total 870 hours.
- The curriculum of the degree programs were evaluated and restructured to meet the statutory mandate of a four-year degree program.
- CSU's revised general education curriculum was developed to assure competence in writing, speaking, mathematics and wellness. The content areas provide broad perspectives. Students enroll in general education courses during the first two years;

however, each degree program has designed three courses to ensure the depth and integration of knowledge across the curriculum.

- Collaboration among teacher education, liberal arts and science, music and art is strong. The Teacher Education Council provides for an appropriate dialogue and exchange of information across academic disciplines.
- Interviews with faculty and administrators from partner and professional development schools indicated that a significant training effort has been made in the integration of theory and practice. The intensity and scope of experience provided to CSU's teacher candidates in partner schools is outstanding.
- The content faculty assist education faculty in the supervision of students during their student teaching experience to assure that content knowledge is appropriately taught.
- CSU has successfully addressed professional content standards in all aspects of the program.
- Scores on the PLACE examination of content knowledge are above the state average.
- Assessments are embedded in all curriculum and field experiences on teaching skills, professional knowledge and content knowledge.
- CSU uses a student work sample approach that spans the entire program from admission to completion showing the potential for using a value-added model when assessing student teaching and field experience.

The analysis of CSU's teacher education programs is described in detail in the Report of the Teacher Education Review Team (Attachment A). It is supported by content analysis of CSU's General Education curriculum and its degree programs that are seeking teacher education authorization.

These documents support the staff recommendation for full approval for the Colorado State University's teacher education programs.

COLORADO COMMISSION ON HIGHER EDUCATION

Report of On-Site Review Team
Teacher Education

COLORADO STATE UNIVERSITY

Statutory Performance Measure:

a**. Admission System**
(Comprehensive admission system, which includes screening and counseling for students who are considering becoming teacher candidates.)

General Comments:

(1) Colorado State University has defined the admission criteria for undergraduate teacher education students. The admission criteria include a minimum 2.75 grade point average of all postsecondary work; attendance at an orientation/advising session; and evaluation of application material by School of Education. Students are admitted if they successfully complete of Phase I courses which include 36 hours of field experiences, a degree program planned with the assigned education advisor; and demonstration of writing and technology competency. Students whose records are inclusive are invited to an interview with the Admissions and Retention Committee.

(2) Admitted students receive a handbook identifying steps to complete the program.

(3) CSU has negotiated a transfer agreement with Front Range Community College. It has developed a transfer policy to support the agreement**.**

(4) Post baccalaureate students receive written and defined policy information. Post baccalaureate students are required to complete and pass the PLACE content exam as a condition of formal admission.

(5) Student records are kept and maintained. Records include documentation for formal admission, deficiencies, incomplete status and successful completion. Standards for each process are documented and evidence has been provided that students are treated equitably. Each degree program has published a planning document that describes the specific academic and professional expectations of its teacher candidates. Students sign a form acknowledging that successful academic performance and professional experiences are necessary to continue in the teacher education program.

(6) CSU has published the graduation requirements for its teacher education programs.

(7) CSU's counseling process for undergraduate students includes individual advisement and monitoring of teacher candidates. Students are advised by two advisors, one in the academic major and one in education.

(8) To facilitate each student's academic progress, online systems and faculty advisors monitor students' progress including unmet programmatic requirements. Advising records are kept and maintained in a central program area with specific reference to advice provided and actions taken throughout the student's program.

Sources of Evidence:

Student file review, meetings with current and past students, meetings with faculty and administrators. Program planning sheets, demonstrating the four-year graduation plan. Students have verified that the counseling system for education candidates is in place.

Strengths:

Colorado State University's education faculty's advising plan assures that all students have selected a major, have been assigned advisors as appropriate, and have a defined academic plan. Noted above is a successful admission and counseling process that was evidenced by the on-site team members and the follow-up verification with students.

To maintain the level of processing necessary for the admissions and advising system, a monitoring system is in place and operational as defined within the student handbook. A careful analysis of records on site and discussions with students verified that a precise process is used for admission to teacher education, information is published within the student handbook for teacher education and that students are aware of the policies. Also evident was the clear step by step delineation of movement from initial/provisional to formal admission to teacher education. The processes identified are utilized for the undergraduate and post baccalaureate programs.

Weaknesses:

Students indicated that advisors provide inconsistent information regarding the degree programs appropriate for teacher preparation and the graduation requirements. The problem occurs with the academic program advisor who often does not have specific information about teacher education requirements. This information gap may result as CSU transitions from its old curriculum to the new.

The students find the planning sheets difficult to interpret. For example, general education courses appear both on the general education page and in the content major course requirements. Students suggest that CSU work with its students to develop better forms once its degree programs are approved.

COLORADO COMMISSION ON HIGHER EDUCATION

Report of On-Site Review Team
Teacher Education

COLORADO STATE UNIVERSITY

Statutory Performance Measure:
b. Ongoing Screening and Counseling of teacher candidates by practicing teachers or faculty members.

General Comments:

(1) The counseling process includes individual advisement and monitoring of teacher candidates. An academic advisor and a teacher education advisor are assigned to each student.

(2) Teacher education students meet with their advisor each semester. The meeting is mandatory and advisors document the advice provided in the meetings.

(3) To facilitate the monitoring of student academic progress, the university has implemented online advising system that is used with the faculty advisor.

(4) CSU has defined the program requirements for each teacher preparation program.

(5) Advising records are kept and maintained in a central program area with specific reference to advice provided and actions taken throughout the student's program.

(6) CSU's post-baccalaureate program is designed to address content deficiencies using content area exams and transcript reviews. If a student's transcript shows a gap in necessary content, leveling coursework is required.

Sources of Evidence:

Evidence included student file review, meetings with current and past students, meetings with faculty and administrators. Check off sheets, four year plans, and course by course identifications are used as verification at the end of the process and includes formal sign-off from each area.

Strengths:

CSU's counseling process assures that all teacher education students have selected a major, have assigned advisors, and have a defined academic plan.

Weaknesses:

Advising in the student's academic major.

COLORADO COMMISSION ON HIGHER EDUCATION

Report of On-Site Review Team
Teacher Education

COLORADO STATE UNIVERSITY

Statutory Performance Measure:

c. Course work and field based training that integrates theory and practice (i.e. early field experience) and educates teacher candidates in the methodologies, practices and procedures of teaching standards-based education.

General Comments:

(1) Integration Across the Curriculum. The Teacher Education Council (TEC) provides opportunities for continuing dialogue and exchange of information across academic disciplines. The TEC is comprised of deans, department heads and faculty with expertise in each of the content areas training prospective teachers. Content specialists and teacher education faculty developed the curriculum for each teaching specialty, with input from P-12 teachers. The TEC assures curriculum content is fully aligned with the Colorado content standards and each content area has considered the needs of classroom teachers and identified courses that provide the necessary academic background.

(2) The *All University Core Curriculum*, which was completely redesigned in 1998, became effective in fall 2000. Within the core competencies category emphasis is placed on writing, computing, speech, mathematics and critical thinking. Course work in education foundations provides a basis for further study in the students' chosen content areas. For students seeking licensure, the required courses within the core support and/or extend discipline competency.

(3) Content Major: The undergraduate curriculum of teacher education is designed so teacher education candidates can complete their respective programs within four years. There was no evidence of hidden prerequisites. Program hours for graduation or completion of teacher candidacy were 120 hours for most programs. Business education-entrepreneur management, history, marketing education and science geology are 122 hours; music education, given accreditation requirements, requires 128 hours. The liberal arts and sciences faculty has participated in the development of a quality content area. Faculty interviews indicated that this attitude spanned all undergraduate degree programs seeking teacher education authorization.

(4) Professional Knowledge: The faculty of Liberal Arts, Agricultural Sciences, Business, Applied Human Sciences, and Natural Sciences have redesigned many courses to meet the Colorado Department of Education Performance Based Standards in Early Childhood, Music Education, Art Education, and Secondary Education. The current professional knowledge syllabi were available and did evidence completion of the implementation of the performance-based standards. Some courses were begun in

fall, 2000; most were to begin in January 2001. Classroom visitations evidenced that course operation with performance based standards were a reality. Students were knowledgeable about and addressed performance based standards with ease.

"Project Promise", a post-baccalaureate teacher preparation program for secondary education, is an accelerated program for mid-career professionals. Multiple field experiences with contextual teaching, a cohesive curriculum integrating theory and practice and a well defined plan for assuring development of methodologies, practices and procedures for teaching standards based education are in place. Project Promise has been in operation for twelve years and received the Program of Excellence Award from the Colorado Commission on Higher Education in 1993.

Teacher Education and Masters (TEAM), a new program, is currently working with its first cohort of teacher candidates. Emphasis is on inquiry into practice with a strong research base integrated throughout the program. Students begin the program in summer with defined course work, continue in fall with a general methods course at a PDS school, a research project and student teaching in the spring. The following summer additional coursework is completed; during the second fall they begin in their own classroom as a licensed teacher with an action research project. During the third and final semester students return to campus to complete coursework and present their research.

Sources of Evidence:

Student file review, meetings with current and past students, university faculty and administrators and K-12 faculty and administrators, university class visits, and review of "old" and "new" syllabi.

The syllabi of liberal arts and sciences courses. CCHE's content review team used the syllabi to assess if the curriculum addressed the K-12 model content standards.

Strengths:

The curriculum design provides an exemplary mix of general education, content knowledge and professional knowledge. The content of general education courses enhances the depth of knowledge provided in the majors. Professional education courses integrate theory and practice. Field experiences are an integral part of each professional development course. Excluding observation, field experiences total 870 hours.

With the inception of SB 99-154 and the new statutory measures, Colorado State University immediately began to address the needed changes. The curriculum of the degree programs were evaluated and restructured to meet the statutory mandate of a four-year degree program.

CSU's revised general education curriculum was developed to assure competency in writing, speaking, mathematics and wellness. The content areas provide broad perspectives. Students enroll in general education courses during in the first two

years. However, each degree program has designed three courses to ensure the depth and integration of knowledge across the curriculum.

Collaboration among teacher education, liberal arts and science, music and art is strong.

The professional knowledge content of: Secondary Education and K-12 Music and Art Education are well defined, with clear learning expectations and multiple opportunities to assess knowledge and skills.

The curricula of the following degree programs are designed to align with the content knowledge needed by K-12 teachers:

Agriculture
Business Administration
Consumer and Family Studies
Language, Literature and Culture Studies (French, German, Spanish)
English
Mathematics
Biology
Chemistry
Geology
Physics,
Natural Sciences
History
Liberal Arts, B.A.)
Speech Communication
Technology Education and Training
Art
Music

* The early childhood teacher preparation has received authorization from the Colorado Commission on Higher Education on November 2, 2000.

On the content performance measure, the areas are identified by program in the following table.

Teacher Education Authorization	Degree Program	General Education	Content of Major	Professional Knowledge
Early Childhood	Human Development and Family Studies	See general education analysis	See content analysis	The professional knowledge courses provide a structured and developmental progression of experiences: observation of effective learning to teach experiences focused on specific topics; opportunities to participate in field experiences working with children; preparing and teaching lessons; classroom teaching; and assessment, diagnosis and parent communication. Trained P-12 mentor teachers in professional development sites supervise all experiences. Content faculty and education faculty supervise student teaching; these faculty also have public school teaching experience they integrate into content methods courses. Supervision occurs through on-site teaching, mentoring and web-based discussions as well as videotapes and written analysis.
	Post-baccalaureate	NA	NA – see admission assessmen t	Post-baccalaureate professional knowledge follows the undergraduate program sequence.
Secondary	Agriculture		See content analysis	Every professional education course includes a standards-based field experience. Trained P-12 mentor teachers in professional development schools supervise all experiences. Content and education faculty have public school teaching experience that they integrate into content methods courses. Supervision occurs through on-site teaching, mentoring and web-based discussions, as well as videotapes and written feedback. Professional Development School structures provide teacher candidates with an opportunity to teach in and understand junior high and high school settings. Candidates have semester-long experiences within the partner schools that provide "real life"
	Business Administration			
	Consumer and Family Studies			
	English			
	Language, Literature and Culture Studies • French • German • Spanish			
	Business Administration			
	Mathematics			
	Biology Chemistry Geology Natural Sciences Physics			
	Liberal Arts History			

	Speech Communication	Strong	See content analysis	schools that provide "real-life" experiences working within the classrooms of trained cooperating teachers.
	Technology Education and Training	Strong	See content analysis	
	Post-baccalaureate in all	NA	NA – see admission assessment	Project "PROMISE" and Project "TEAM" provide multiple field experiences for mid-career professionals. In Project Promise, students receive instruction during a full-day class schedule followed by field experience in a professional development school site. Students are required to demonstrate proficiency through work samples during the five field experiences. The fall term includes one full day in the classroom with the cooperating teacher they had during the first week of school. The rest of the week is spent in the junior high/middle school classroom. An interim winter session allows an urban Denver field experience. The spring semester begins with a senior high school teaching experience. Each field experience is supervised by a trained cooperating teacher, a content faculty member and education faculty. Project Team is also an accelerated program designed for individuals who have earned an undergraduate degree in an area related to secondary curriculum. This program also integrates full time field work with coursework. This program continues coursework and research into the first year of teaching. Students return to campus to present research findings and complete coursework.
K-12: Art	Art	Strong	See content analysis	The K-12 professional knowledge component closely imitates the secondary sequence except there is a wider range of course work and field experience as is practical for the increased number of grade levels.
K-12: Music	Music	Strong	See content analysis	

Weaknesses: There are no identified weaknesses in this measure.

COLORADO COMMISSION ON HIGHER EDUCATION

Report of On-Site Review Team
Teacher Education

COLORADO STATE UNIVERSITY

Statutory Performance Measure:

d. Each candidate completes a minimum of 800 hours of field experience that relates to predetermined learning standards.

General Comments:

(1) In the secondary and K-12 licensure areas consistency was evident for the program as a whole. Hours were clearly defined, predetermined learning standards were identified and lessons taught and the faculty follow through into the classroom was evident in the discussions with the students and faculty. . Students are prepared on-campus prior to the experience with easily identifiable goals transferred to the classroom settings**.** All performance-based teacher education standards are addressed during student teaching, where a teacher Work Sample has been added as a requirement. Student teaching is designed to encompass summative Teacher Work Samples. Student teachers are expected to be on-site, working a teacher's schedule for 15 weeks for secondary endorsement students and 16 weeks for K-12 endorsements and business/marketing endorsement.

Criteria have been established for both the selection of the field site and of the cooperating teacher. A signed agreement is required between the school and the university is kept in every field site. During the placement process, interviews/observation opportunities are provided for students and feedback is given prior to the final selection of the site. This process helps to assure that placements are successful. University faculty and K-12 faculty observe and provide feedback and input at pre-determined evaluation points to the teacher candidate. One faculty member observed that, "Cooperating teachers put in as much effort as the student teachers."

Each student has the opportunity to deliver instruction, demonstrate how to adapt content knowledge to content standards, develop assessment tools to evaluate achievement of content standards and diagnose learning difficulties. They also work and communicate with parents about student progress and deficiencies and must change teaching styles to respond to student learning needs.

Following are the identified licensure areas, required field experience hours and student dispositions. Each teacher education program meets or exceeds the 800 required field experience hours with defined student expectations. On site visitations

to K-12 partner schools verified active and quality participation by faculty.

Teacher Education Authorization	Level of Field Experience	Frequency	Scope	Intensity
Early Childhood	Freshmen	0 Hours		
	Sophomore	60 – 80 Hours	Observations	Early observations allow students to examine the reality of teaching as a profession. They also see different schooling structures and models.
	Junior	96Hours	Developing lessons	The student begins individual and small group instruction in a partner school that could be a charter, public or private school in the Fort Collins area. Teacher candidates work with students on literacy skills including reading, writing, speaking, listening and mathematics. Teacher candidates will tutor, provide resource materials, instruct and prepare students for CSAP tests.

	Senior	690 Hours	Large Group instruction and assessment and Student teaching	The student is the primary instructor and the focus is on classroom management, assessment of students, instruction, post assessment and modification of instruction techniques. Student teachers are expected to be on site, working a teacher's schedule for eight weeks in a pre-school setting and eight weeks in an elementary (K-3) setting. Teacher work samples tied to student learning are used extensively during this experience.
Total		846 – 866Hours		
Secondary and K-12	Freshmen	0 Hours		
	Sophomore	20 Hours	Observation, Tutoring	Observation and tutoring
	Junior	134 Hours	Developing lessons, direct Experience	Teacher candidates provide individual and small group instruction in a Poudre Valley partner school that could be a charter, public or private school in the Fort Collins area. Teacher candidates work with students on literacy skills including reading, writing, speaking, listening and mathematics. Teacher candidates will tutor, provide resource materials, instruct and prepare students for CSAP tests.

	Senior	716 Hours	Student Teaching	The student is the primary instructor. Field sites are in High School professional development schools that have formal partnership arrangements with the University. Candidates focus on teacher work samples related to student learning, classroom management, delivery of instruction, assessment and modification of instruction techniques to fit student learning. Student teachers are on site, working a teacher's schedule for 15 weeks.
Total		870 Hours		
	Post-Baccalaureate Project Promise	850 – 1000 hours over 10 month period	Observation, Direct Experience	Individual instruction, group lessons, student primary instructor. The quality of the field experience mimics those in the undergraduate program but is accelerated for the non-traditional student.

(2) In meetings, observations and discussions with P-12 faculty and administrators at each licensure level, it is evident that positive role models are present for student teachers and students within the field experience components. Criteria are in place and strong role models ensured through implementation of the formal agreement with partner schools.

(4) As described in (c) Project Promise students are engaged in an integration of theory and practice that includes twenty-three (23) weeks (over 1000 hours) of field experiences. These experiences extend over rural, suburban and urban schools in Colorado. The Project Promise faculty teaches all the course work, supervises all of the student teachers and participates in all program activities and field experiences. Project Promise is a post baccalaureate program

(5) TEAM, a graduate program in which the student is a licensed teacher in the second year of the program, provides for a minimum of 800 hours of supervised field experiences. With a strong research base and support by faculty for the continued inquiry process development, the program plan emphasizes teachers who are inquirers into their own and current practices in education. As presented, the program relates all field experience hours to predetermined learning standards.

Sources of Evidence:

A review was completed of the field experience requirements for each teacher preparation area as they related to pre-determined learning standards. Syllabi provided the basis for analysis of student experiences with many specifically defining how that is to occur. Sample formats were available in many with the direct alignment to content standards. Preparation of students for the field experiences was completed at a variety of levels for student transitions within the programs.

Strengths:

Noted above is a successful collaboration between the liberal arts and sciences and education faculty and administration. The Teacher Education Council provides for an appropriate dialogue and exchange of information across academic disciplines. In addition, the K–12 faculty and administration are supportive of and demonstrate a continued desire to provide quality and meaningful experiences for the teacher education candidates of Colorado State University.

Interviews with faculty and administrators from partner and professional development schools indicated that a significant training effort has been made in the integration of theory and practice. Additionally, each candidate's preparation relates to pre-determined learning standards.

The proficiency of students in the standard elements is assessed throughout the program assuring that the candidate is proficient at time of entry into the profession.

The partner school model as developed by the CSU is outstanding in its scope and intensity. The training provided, involvement of teacher education and arts and science faculty are continuous from program inception to completion.

Weaknesses:

No weaknesses are identified.

COLORADO COMMISSION ON HIGHER EDUCATION

Report of On-Site Review Team
Teacher Education

COLORADO STATE UNIVERSITY

Statutory Performance Measure:

e. Demonstrate the skills required for licensure as specified by the State Board.

General Comments:

(1) A curriculum review of each degree program by CCHE/CDE Review Team was completed to ensure that the curriculum provides sufficient preparation in the professional content standards with the students and faculty.

LITERACY - The literacy components in the K-12, Early Childhood and Secondary programs are well done. The course syllabi and design directly address the knowledge of literacy model content standards for Early Childhood, K-12 and secondary education and the application of strategies, methodologies and "best practices" for each of the content areas. In addition the coursework incorporates field-based experience enabling teacher candidates to work with students on literacy skills including reading, writing, listening, speaking and mathematics. This component of the elementary program was a collaborative accomplishment by the education faculty and the arts and sciences faculty. It was evident that this process permeates the program plan with students progressing from the basic to developing and culminating to proficiency.

MATHEMATICS AND MATH LITERACY – As noted above, this standard is integrated into the literacy coursework for each of the licensure areas. Colorado State University has the mathematics courses to support the standard within the All University Core Curriculum and the literacy coursework. The newly developed Early Childhood Education program has within its program identified all the concepts and standards necessary for student proficiency.

CONTENT STANDARDS AND ASSESSMENT - Review of the knowledge and application of content standards in each licensure area at the Colorado State University provided a defined process for proficiency in this area. The programs demonstrated proficiency throughout in content standards and assessment. Assessment is also evident throughout the program. Assessment begins in the sophomore year and is taught through practice in field experience to ensure teacher candidates' proficiency.

CONTENT - In the professional knowledge curricula, the knowledge base was evident through syllabi and course descriptions.

CLASSROOM AND INSTRUCTIONAL MANAGEMENT - On site review and discussions with students and faculty and administrators of the participating schools provided a clear understanding that these areas were appropriately met via university preparation and the concomitant work within the school setting.

INDIVIDUALIZED INSTRUCTION – The knowledge and application of the assessment components within licensure areas supports the individualization of instruction

TECHNOLOGY - Technology is taught through coursework in which the student learns technology for instruction as well as use of technology itself. Technology could be better infused throughout the professional knowledge coursework also, with the infusion of technology throughout programmatic areas, a more focused approach would occur for integrating and applying technology with relevant content. The PT3 grant appears to provide the avenue for this to occur in the future.

EDUCATIONAL GOVERNANCE – CSU has included this standard in their introductory education course, which allows students to understand this aspect of education prior to field experience. A review of the coursework prior to student teaching defines school law preparation that pertains to the classroom. Given the positive responses in the student teaching and field experiences, this will be reinforced at a meaningful time and level.

Sources of Evidence:

Verification of the strength and breadth of understanding of the curriculum to successfully teach in the Colorado standards based classroom was determined by review of student materials, syllabi, individual meetings with current and past students, faculty and the K-12 classroom teachers and administrators

Strengths:

Evident throughout the review of plans, portfolios and meetings with preparation of students to meet the Colorado professional content standards. The Early Childhood Education, K-12 and secondary education licensure components have successfully addressed each of those components.

Weaknesses:

No weaknesses are identified.

COLORADO COMMISSION ON HIGHER EDUCATION

Report of On-Site Review Team
Teacher Education

COLORADO STATE UNIVERSITY

Statutory Performance Measure:

f. Comprehensive assessment of candidate's knowledge of subject matter.

General Comments:

The team examined the assessment of subject matter in three settings – general education, content knowledge of the teacher candidate demonstrated in the college classroom, and the ability to apply the knowledge in the K-12 classroom. In some cases, the information provided in the binders was supplemented with faculty interviews.

The PLACE content test is required prior to student teaching to ensure content knowledge. Ongoing course content analysis allows the teacher education program faculty to assess the content through course syllabi and student grades. Students must have a 2.75 grade point average for entry to the teacher education program. Entry to the teacher education program also mandates that students pass a competency test for writing and math.

CSU's All University Core Curriculum addresses core competencies. The student must successfully complete 12 credits in core courses including written communication, oral communication or foreign language, mathematics and critical thinking. The credit hours required in content areas include seven credits of biological or physical science, three credits in arts and humanities, three credits in social or behavioral science, three credits of history or culture, two credits in health and wellness and three credits in U.S. institutions.

Sources of Evidence:

Student work samples, meetings with current and past students, meetings with university faculty and administrators, university class visitations, and PLACE exam scores.

Strengths:

Scores on the PLACE examination of content knowledge are above the state average in all but two content areas.

Embedded assessments in Elementary Ed, Early Childhood, Special Ed, Music Ed, Art Ed, and Physical Ed on teaching skills and professional knowledge and all areas of the sciences.

A student work sample approach that spans the entire program from admission to completion shows potential for using a value-added model when assessing student teaching and field experience.

(1) Within each component of the teacher education programs of the Colorado State University, the curriculum defines and addresses the assessment of student content mastery. The assessment piece was designed holistically and is student-centered.

(2) The site team visited the field experience locations and saw how the teacher candidates demonstrate knowledge of content during the field experiences.

(3) The Professional Education Council provides for an appropriate dialogue and exchange of information across academic disciplines. In addition, the K–12 faculty and administration are supportive of and demonstrate a continued desire to provide quality and meaningful experiences for the teacher education candidates of the Colorado State University.

Weaknesses:

CSU has not selected a general education assessment but is currently reviewing and analyzing several national tests to identify the test that measures general education curriculum. The administration has committed to assessing general education knowledge of all teacher education students and will require testing in general education in the fall of 2001.

The following chart identifies assessment strengths and weaknesses in the program design. If not noted as excellent or missing, the assessment is acceptable.

Teacher Education Authorization	Degree Program	General Education	Content of Major	Professional Knowledge
Early Childhood	Human Development	General Ed Exam to be implemented fall 2001	PLACE content exam and course assessments	The CSU uses the following assessments to evaluate the students' mastery of teaching skills and knowledge: • Teacher Work Samples • Student Teaching Observations and Evaluations • Portfolio Assessment • Course Assessment CSU faculty assess teacher education candidates in the field, guide their learning, and provide feedback on ways to improve the quality of teaching. Pre-student teaching field experiences are monitored and supervised by faculty.
Secondary	Agriculture			
	Business Administration			
	Consumer and Family Studies			
	English			
	Language, Literature and Culture Studies • French • German • Spanish			
	Mathematics			
	Biology Chemistry Geology Natural Science Physics			
	Liberal Arts History			

	Speech Communication			Student teachers are observed and evaluated four times by the cooperating teacher and four times by the university supervisors (content and education). Further, an assessment seminar and a professional relations seminar guide students to better understand assessments and professional careers in teaching. A record of each student's progress toward proficiency in the performance-based teacher education standards will be maintained on CSU's electronic inventory.
	Technology Education and Training			
	Post-baccalaureate in all programs			
Post-Baccalaureate	Project Promise			The post-baccalaureate program uses the same assessment methods as the undergraduate program to assure that students are capable, comfortable and confident in the classroom. The primary measure is student work samples that assess the student learning of the K-12 student.
K-12: Art	Art			CSU uses the following

K-12: Music	Music Education			assessments to evaluate the students' mastery of teaching skills and knowledge: • Teacher Work Samples • Student Teaching Observations and Evaluations • Portfolio Assessment • Course Assessment CSU faculty assess students in the field, providing feedback and consultation to improve the quality of their teaching. Pre-student teaching field experiences are monitored and supervised by faculty. Student teachers are observed and evaluated four times by the cooperating K-12 teacher and four times by the university supervisors (content and education). In addition, an assessment seminar and a professional relations seminar guide students to understand assessments and how to apply this to adjusting their teaching. CSU's electronic inventory .system maintains a record of each student's progress toward proficiency in the performance-based teacher education standards.

TOPIC: **TEACHER EDUCATION AUTHORIZATION: FORT LEWIS COLLEGE**

PREPARED BY: **DIANE LINDNER/SHARON M. SAMSON**

I. SUMMARY

CCHE, in conjunction with Colorado Department of Education, has been reviewing teacher education programs offered by Colorado colleges and universities. The staff has completed the site reviews and will be forwarding teacher education program authorizations to the Commission for approval in March, April and June.

The agenda item provides an in-depth look at Fort Lewis College's teacher education programs and an evaluation of the quality of the program design and capacity to become a performance-based model.

The staff recommends approving teacher education authorization for Fort Lewis College's teacher education programs, including:

LICENSURE LEVEL	DEGREE PROGRAM
Early Childhood Education	Interdisciplinary Studies
Elementary Education	Interdisciplinary Studies
Secondary Education	English Mathematics Biology Chemistry Earth Science Physical Science History Humanities Spanish
K-12 Education	Art Music Physical Education

*Post-baccalaureate in all of the above areas

II. BACKGROUND

The on-site visit occurred on September 25 and 26, 2000. Curriculum materials were read by two individuals from higher education, Janine Rider from Mesa State College and David Whaley from Colorado State University. Both individuals are administrators involved in teacher education. The curriculum reviewers read the material and developed questions and areas needing investigation. The site review team met with the readers to discuss their findings and prepare for the visit. The site review team spent two days on the campus of FLC.

The review team included:

Walter "Pete" Petrofski - Retired AF Colonel, Businessperson
Diana Walcher – Elementary/Special Education Teacher
Bill Ottey – Assistant to the Commissioner, CDE
Dorothy Snozek – CCHE
Diane Lindner – CCHE

III. STAFF ANALYSIS

The strengths of the teacher education programs at FLC include:

- The admission process is strengthened by the introduction of mandatory placement exams in reading, writing, and mathematics. Prior to this year, FLC has assessed the writing skills to identify any remedial needs but not the other areas.
- Student interviews revealed that the students feel that FLC has a very personal and student-centered advising process. The faculty provide individual attention and typically are available to meet with students without a formal appointment. Consequently, the students have a high comfort level in this environment, and contact their advisor whenever they wish to select a major or discuss their curriculum plan.
- The professional knowledge courses are focused. Students indicated to the review team that they were confident about their ability to teach in a standards-based classroom, especially their literacy skills.
- The teacher candidates, faculty and cooperating teachers enthusiastically support the Partnership Program. The intensity of the one-year student teaching experience is apparent, including continuous interaction between the teaching candidates and the Fort Lewis College faculty. K-12 cooperating teachers in elementary and middle schools affirmed the quality of the partner school experience, particularly "hands on" experiences and opportunities to apply "educational theory" in a real world setting.
- Evident throughout the review of plans, portfolios and meetings with classroom teachers and administrators, the Fort Lewis College teacher education program has been consistently preparing students to meet the Colorado professional content standards at each licensure level. All faculty with whom students have had contact (Arts and Science and Education) in the defined academic and professional knowledge areas are aware of and teach to the Colorado standards-based classroom.

- FLC has developed a comprehensive assessment plan. Four phases are identified as decision points for a student's continuation in the program, including: 1) pre-admission, 2) student teaching candidate selection, 3) student teaching, 4) qualification for a teaching license. The student teaching and licensure assessment strategies are aligned with SBE's performance standards.
- Pre-admission standards include high school preparation, basic skills testing in reading, writing and mathematics.
- Prior to student teaching, the student must meet academic standards, including a 2.5 college g.p.a. and demonstrate mastery of the proficiencies identified on FLC's Proficiency Log (i.e., verified by a Teacher Education faculty member). The PLACE content exam must also be passed prior to student teaching.
- Prior to licensure recommendation, the teacher education candidate must present a Teacher Work Sample that is linked to K-12 content standards, a 3-5 week instructional plan, formal evaluation by the supervising K-12 teacher, and a portfolio that demonstrates proficiency with the range of skill and knowledge associated with teaching. Each student presents the portfolio to a three-member panel and is rated on the portfolio content and their presentation.

The analysis of FLC's teacher education programs is described in detail in the Report of the Teacher Education Review Team (Attachment A). It is supported by content analysis of FLC's General Education curriculum and its degree programs that are seeking teacher education authorization.

These documents support the staff recommendation for full approval for Fort Lewis College's teacher education programs.

COLORADO COMMISSION ON HIGHER EDUCATION
Report of On-Site Review Team
Teacher Education

FORT LEWIS COLLEGE

Statutory Performance Measure:

a. Admission System
(Comprehensive admission system that includes screening and counseling for students who are considering becoming teacher candidates.)

General Comments:

(1) FLC's School of Education has adopted a new admission process that is currently in place and consistent within each program area.

(2) Admission requirements for teacher education programs are specified in a written policy, and shared with students at orientation sessions.

(3) Addressed within the admission process is the writing literacy requirement, which identifies completion of two writing courses within general education and receiving advanced proficiency rating on a writing assessment.

(4) Applicants into the post baccalaureate teacher education programs must take the PLACE content exam. Students are admitted provisionally if they do not score above the pass score. Students who pass the PLACE content exam are admitted and may begin field experiences. In addition, FLC arts and science faculty review the transcripts of the post-baccalaureate applicants to identify content deficiencies.

(5) FLC has negotiated a transfer agreement with Pueblo Community College.

(6) The admission office maintains the student records, including provisional admission, formal admission, deficiencies, incomplete status and successful completion. As a student meets the program standards, this information is recorded in the student's file.

Sources of Evidence:

Admission file review
Meetings with current and past students
Meetings with faculty and administrators

Strengths:

The admission process is much strengthened by the introduction of mandatory placement

exams in reading, writing, and mathematics. Prior to this year, FLC has assessed the writing skills to identify any remedial needs but not the other areas.

Weaknesses:

No admission weaknesses were identified.

Statutory Performance Measure:

b. Ongoing Screening and Counseling of teacher candidates by practicing teachers or faculty members

General Comments:

(1) FLC's new advising system at Fort Lewis College mandates that faculty meet with their assigned student advisees at least once each semester. Students are unable to register without the appropriate advisor sign-off.

(2) A central advising office monitors the students' enrollment and their progress toward degree completion. Specific course enrollments serve as "benchmarks" that signal progress points. If a student does not meet the academic standards for continued enrollment in the teacher education program, the advisor contacts the student and provides assistance to address the difficulties or deficiencies.

(3) As part of the *Introduction to Teacher Education in America*" course, students receive the teacher education packet specific to licensure area of elementary, early childhood, secondary and K-12.

(4) Review of the student records indicated that students are advised consistently and receive guidance on their progress in meeting the program standards. Each program has published a description of its academic standards and professional expectations of teacher candidates.

(5) The counseling process includes individual advisement. Two advisors are assigned to each student: one in the academic major and one education advisor.

Sources of Evidence:

Review of student files
Interview with current students
Bulletin board announcements, advising guides and course pre-requisites, competencies, and benchmarks

Strengths:

Student interviews revealed that the students feel that FLC has a very personal and student-centered advising process. The faculty provide individual attention and typically are available to meet with students without a formal appointment. Consequently, the students have a high comfort level in this environment, and contact their advisor whenever they wish to select a major or discuss their curriculum plan.

Weaknesses:

There were no advising weaknesses identified.

Statutory Performance Measure:

c. Course work and field based training that integrates theory and practice and educates teacher candidates in the content and practices of teaching standard-based education.

General Comments:

(1) Degree programs were designed so that teacher education candidates can complete graduation requirements within four years. There was no evidence of hidden course prerequisites.

(2) FLC has carefully selected degree programs that provide students with the content knowledge that aligns with the subjects taught in the K-12 schools.

(3) FLC has restructured its general education program, reducing it from the original 57 credits to 39 credits. The general education credits include skill courses, four lower division courses from each of the four thematic areas, four core upper division courses, and an interdisciplinary course. The student selects one pre-core course in each thematic knowledge area (Technology, Natural Environment, Culture, Identity, & Expression, Systems and Institutions) and one core course in each area.

(4) The liberal arts and sciences and education faculty have redesigned courses to ensure that each whole degree program aligns with performance standards. The model content standards utilized in the K-12 schools have also been aligned to teacher education and content coursework. A framework exists to define what is being taught, where and the level of expected student proficiency for each course and field experience. This is evident within the plans, portfolios and student lessons on-site. Students indicated their awareness of the requirements for beginning teachers and CSAP as utilized in the state of Colorado. The secondary program's literacy component was redesigned to include teaching literacy in math and reading. The elementary education professional knowledge courses has a strong literacy strand in the courses.

(5) The redesigned undergraduate degree programs at FLC provide a balanced and integrated course of study where 1/3 of the credits are general education, 1/3 are in the major, and 1/3 are professional knowledge and field experience.

CURRICULUM	Credits
General Education	39
Major	43
Professional Knowledge	38
GRADUATION REQUIREMENTS	**120**

Sources of Evidence:

Review of curriculum of the degree programs
Review of course syllabi
Student interviews

Strengths:

The professional knowledge courses are focused. Students indicated to the review team that they were confident about their ability to teach in a standards-based classroom, especially their literacy skills. Students credit Dr. Linda Simmons credit her for their confidence and classroom performance in teaching literacy to K-12 students.

Weaknesses:

FLC was the first teacher education institution on the review schedule. It used the review to consult with the review team on literacy at the secondary level and the proposed general education requirements. It has addressed the content areas that were under development at the time of the review. Specifically, FLC requires College Mathematics as a general education course for all its teacher education students in addition to the math course required in the major. It is developing a new general education mathematics course for all students. FLC has used its elementary literacy courses to develop the secondary literacy course.

Teacher Education Authorization	Degree Program	General Education	Content of major	Professional Knowledge
Early Childhood	Interdisciplinary Studies	See attachment	See content analysis	The professional knowledge courses contain the basics described for Elementary licensure customized for pre-service early childhood teachers.
Elementary	Interdisciplinary Studies	See attachment	See content analysis	Teacher Education courses align instructional objectives with adopted model content standards and address individual student needs. The student adjusts instructional practices and measures and monitors each pupil's progress toward meeting standards. The student meets with parents. Content and Teacher Education faculty are involved with student's field experience. Teacher Education faculty supervise field study in the K-6 school. They have student contact in-class and between 5 to 8 hours per week of on-site supervision. Arts and Science faculty are included in the evaluation process for student teachers to assure content is adapted to the classroom.
Secondary		See attached content analysis.	See content analysis	Each Teacher Education course is based on Performance-based Standards for Colorado Teachers and contains specifically aligned field study assignments.
Language Arts	English			
Mathematics	Mathematics			

Science	Biology Chemistry Earth Science Physical Science			Content and Teacher Education faculty are involved with student's field experience. Teacher Education faculty supervise field study in the 7-12 school. They have student contact in-class and between 5 to 8 hours per week of on-site supervision. Arts and Science faculty are included in field study supervision as well as the evaluation process for student teachers.
Social Studies	History Humanities			
Foreign Language	Spanish			
K-12				
Art	Art		See content analysis	K-12 licensure students complete all coursework essential for a teacher working with the full range of student levels. Field placements occur at both the elementary and the secondary grade levels.
Physical Education	Physical Educ.		See content analysis	
Music	Music Education		See content analysis	
Post-baccalaureate in all of the licensure areas.			Course equivalents meeting standards required in each content area.	The post baccalaureate students have the same professional knowledge courses and field experiences as undergraduate students.

Statutory Performance Measure:

d. Each candidate completes a minimum of 800 hours of field experience that relates to predetermined learning standards.

General Comments:

(1) Fort Lewis College offers three kinds of field experience programs:

- traditional, "on-campus" program with field experience spread throughout the program and the major commitment of student teaching for 600 hours at the end of the program;
- the partnership program in which approximately 80 percent of the course work is completed prior to the one-year field experience
- external field experience that occurs outside a 50 mile radius from Durango. It utilizes on-line instruction to the field sites, each on-line course is paired with specified field experience, and FLC faculty and the K-12 teachers collaborate on the student's progress and academic support needs. In total, each teacher education candidate completes 800 hours of supervised field based experience.

The Traditional Program: The traditional teacher education program provides the traditional coursework and field-based training. The major revision to meet the performance standards is 100 additional hours of field experience.

The traditional program is oriented around students having an intense experience assuming the primary teaching responsibilities under the guidance of a K-12 mentor teacher. FLC has adopted new criteria for selecting mentor K-12 teachers for field placement in the traditional program. These criteria include the principal's recommendation of master teachers, demonstrated experience in a standards-based classroom, and student evaluations of the quality of the supervision and guidance provided by the K-12 teacher.

FLC education faculty visit students in these field experiences five times per semester. Student response to faculty supervision has been documented as excellent. Beginning winter semester 2001, student teaching will include a seminar conducted in selected K-12 schools and weekly participation of FLC faculty. The seminar includes development of a portfolio and biography, portfolio development and critique, discussion of successful unit and lesson plans. The field experience is expanded to include six additional weeks.

The Partnership Program: Students enrolled in the partnership programs complete approximately 80% of all coursework prior to the field experience. The students are in the field full-time basis in a classroom for one academic year. During that time, the student is in a training/doing model with courses assignments completed directly in the K-12 classroom setting. College faculty are on-site daily. Students receive continuous feedback and support from college faculty. The number of K-12 schools

requesting to be a partnership school for the 2000-2001 academic year was twice as large as the number that could be accommodated by the FLC faculty. Interviews with teacher candidates indicate that students have numerous opportunities to deliver instruction, try different teaching strategies, adapt content knowledge to content standards, develop and utilize assessment tools to evaluate achievement, and adapt instruction based on student assessment results. While high quality, it is heavily resource-dependent to maintain the quality and faculty-student interaction. The geographic region limits implementation of the partner school model to the local schools.

In response to the site team recommendation, FLC developed a Partnership II field experience. This field experience is two-year experience during which students are in the field half time and in the college classroom the other half. The main advantage is that teacher candidates are able to begin their field experience earlier in their college experience than the Partnership I option.

The External Program: Practicum/field based experience are heavily emphasized in the external program. Students are placed in schools that are located outside of normal commuting distance from the college. To maintain contact with FLC faculty, teacher candidates enroll in on-line courses that are completed while the students are in the field. Students selected for this field experience must be active and independent learners. Within each course, 15-30 hours of field experience are required. The student teaching experience is supervised closely by K-12 teachers and college faculty consult with students and cooperating K-12 teachers through electronic chat rooms.

(2) After consulting with the review team, FLC expanded the participation of liberal arts and science faculty in K-12 schools. During the field experiences, students participate in a seminar that emphasizes content knowledge and application of content in the K-12 classroom. Students are able to test and implement these strategies immediately in the classroom.

(3) Each arts and science department has designated a content area faculty member who will be in the field 25% of each week. Their role includes observing, providing feedback and evaluating to teacher candidates on how well they are demonstrating content knowledge in the K-12 classroom. Department chairs are developing plans that supervising faculty will follow to provide continuous and constructive feedback to teacher candidates.

Sources of Evidence:

Review of learning assignments completed in field based experiences
Interviews with current and past students
Interviews with K-12 classroom teachers and administrators

Student interviews: For example, an interview with a program graduate discussed the

distance education approach to field supervision. She indicated that this program represented the ONLY way possible she could have received her teacher preparation, since she was unable to come to the main campus to complete her program.

Strengths:

The teacher candidates, faculty and cooperating teachers enthusiastically support the Partnership Program. The intensity of the one-year student teaching experience is apparent, including continuous interaction between the teaching candidates and the Fort Lewis College faculty. K-12 cooperating teachers in elementary and middle schools affirmed the quality of the partner school experience, particularly “hands on" experiences and opportunities to apply "educational theory" in a real world setting.

Weaknesses:

A potential weakness of the external field experience is that students must make their own arrangements for practicum/field experiences. Students are asked to work with principals in order to arrange the match-up with the supervising teacher. The "distance education" field experience is an interesting strategy for providing different field experience opportunities to prospective teachers. Yet, this non-traditional format for delivering teacher education necessitates a greater reliance on the K-12 administrator and teacher who may have little experience in standards-based classroom. FLC needs to explore ways to ensure the depth and breadth of training of the external supervising teachers. Close contact between the FLC faculty and the supervising teacher working in these external programs is imperative to ensure the same quality as other field experiences.

Summary:

The following table provides an overview of the field experiences in FLC teacher education programs.

Teacher Education Authorization	Level of Field Experience	Frequency	Scope	Intensity
Early Childhood and Elementary	Freshmen	0 hours		
Additional field study early in the college experience is designed into the new Partnership programs.	Sophomore	Traditional 1st Sem = 30 2nd Sem = 30	Educational system ethnography	FLC Teacher Education faculty members and mentor teachers trained in standards-based education supervise the field study experiences at this level.
	Junior	Traditional	Educational system	FLC Teacher Education faculty

		1st Sem. = 60 2nd Sem = 60 Partnership II 1st Sem. = 310 2nd Sem = 310	ethnography Instructional planning and assessment	members and mentor teachers trained in standards-based education supervise the field study experiences at this level. Supervisors ensure that pre-determined learning standards are met.
	Senior	Traditional 1st Sem = 60 2nd Sem = 620 Partnership I 1st Sem = 620 2nd Sem = 620 Partnership II 1st Sem = 310 2nd Sem = 400	Instructional planning and assessment. Teacher work sample development. Individualization of instruction practice. Direct experience	Students plan and practice instructional planning under the supervision of FLC Teacher Education faculty. Students study and practice instructional and assessment strategies. Students study and practice individualizing instruction. Arts and Science faculty and Teacher Education faculty are involved with supervision of student teachers. Arts and Science faculty share supervision on approximately a 1:4 ratio with Education faculty. Partnership classes are taught on-site and have additional on-site hours. There is a faculty member located on-site with the class. Partnership I faculty spend 28 hours per week in the K-12 classroom while faculty supervising and assisting Partnership II students spend approximately half that time in the classroom since Partnership II is a half-time program.
TOTAL	Traditional: Partnership I:	860 hours 1240 hours		

	Partnership II:	1330 hours		
Secondary	Freshmen	0 hours		
	Sophomore	Traditional 2nd Sem = 30	Educational system ethnography written through observation. Students tutor a child and relate the cognitive processes associated with learning and individual qualities of students.	FLC Teacher Education faculty members and mentor teachers trained in standards-based education supervise the field study experiences at this level.
	Junior	Traditional 1st Sem. = 30 2nd Sem = 60 Partnership II 1st Sem. = 310 2nd Sem = 310	Educational system ethnography Instructional planning and assessment	FLC Teacher Education faculty members and mentor teachers trained in standards-based education supervise the field study experiences at this level. Supervisors ensure that pre-determined learning standards are met.
	Senior and Post Baccalaureate	Traditional 1st Sem = 60 2nd Sem = 620 Partnership I 1st Sem = 620 2nd Sem = 620 Partnership II 1st Sem = 310	Instructional planning and assessment. Teacher work sample development. Individualization of instruction practice. Direct experience	Students plan and practice instructional planning under the supervision of FLC Teacher Education faculty. Students study and practice instructional and assessment strategies. Students study and practice individualizing instruction so as to benefit all children. Arts and Science faculty and Teacher Education faculty are involved with supervision of student teachers.

		2nd Sem = 400		
	Traditional: Partnership I: Partnership II:	800 hours 1240 hours 1330 hours		
K-12	Freshmen	0 hours		
	Sophomore	Traditional 1st Sem = 30 2nd Sem = 30	Educational system ethnography	FLC Teacher Education faculty members and mentor teachers trained in standards-based education supervise the field study experiences at this level.
	Junior	Traditional 1st Sem. = 60 2nd Sem = 60 Partnership II 1st Sem. = 310 2nd Sem = 310	Educational system ethnography Instructional planning and assessment	FLC Teacher Education faculty member and mentor teachers trained in standards-based education supervise the field study experiences at this level.
	Senior and Post Baccalaureate	Traditional 1st Sem = 60 2nd Sem = 620 Partnership I 1st Sem = 620	Instructional planning and assessment. Teacher work sample development. Individualization of instruction practice.	Students plan and practice instructional planning under the supervision of FLC Teacher Education faculty. Students study and practice instructional and assessment strategies. Students study and practice individualizing instruction so as to benefit all children.

		2nd Sem = 620 Partnership II 1st Sem = 310 2nd Sem = 400	Direct experience	Arts and Science faculty and Teacher Education faculty are involved with supervision of student teachers. . Arts and Science faculty share supervision on approximately a 1:4 ratio with Education faculty. Partnership classes are taught on-site and have additional on-site hours. There is a faculty member located on-site with the class. Partnership I faculty spend 28 hours per week in the K-12 classroom while faculty supervising and assisting Partnership II students spend approximately half that time in the classroom since Partnership II is a half-time program.
	Traditional: Partnership I: Partnership II:	860 hours 1240 hours 1330 hours		

Statutory Performance Measure:

e. Demonstrate the skills required for licensure as specified by the State Board.

General Comments:

A curriculum review of each degree program by CCHE/CDE Review Team was completed to ensure that the curriculum provides sufficient preparation in the professional content standards. Following are the results by professional standard area.

(1) **LITERACY -** A review of literacy within the professional content standards in early childhood and elementary education licensure areas demonstrated that each component of the detailed standards was addressed within course syllabi, defined to accomplish basic, developing and proficiency levels, ensures that students are aware and employ the accomplishment levels of children as appropriate, links with the field based experiences to verify proficiency, provides the necessary assessment knowledge and application to children and the required determination of utilizing assessment to change instruction.

Discussions with students at varying program levels and cooperating teachers and administrators within school settings indicated that students without question meet this standard. Verification within student plans and on-site visitations occurred with the same positive results. Students demonstrated a knowledge of content and professional standards and were confident in what they knew and could apply. Dr. Linda Simmons received praise from students and cooperating teachers regarding the preparation received in literacy in early childhood and elementary licensure areas.

The literacy course for secondary area students as presented in the preliminary syllabus did not meet the performance based standard. It was identified by teacher education faculty as needing revision and did not reflect the course in operation for secondary and K-12 licensure areas. The secondary program's literacy component was redesigned to focus on teaching literacy in math and reading in the content areas. The secondary literacy program is now focused on the CDE standards. Topics covered include language arts and mathematics literacy, performance and sampling assessment, lesson and course planning and alignment with standards. Language and mathematics literacy schema maps are used in the course and include assessments.

(2) **MATHEMATICS AND MATH LITERACY** - The new general education mathematics required course meets the literacy standard. The curriculum includes instructional strategies for K-12 students who are mathematically challenged.

The review team had difficulty assessing the content knowledge in mathematics for early childhood, elementary, secondary and K -12 licensure areas. The evidence included for team review was a newly piloted math assessment tool with proficiency tested below the minimum benchmark of the Performance Based Standards for

Colorado Teachers. Meeting the proficiency level of diverse learners within the classroom was not evident. Missing was the determination that each teacher candidate possessed the content level necessary to provide for all learners in the classroom.

The FLC addressed the content knowledge in mathematics through rejoinder. New general education requirements that include mathematics have been added for teacher education students. This class will provide content knowledge that will enable teacher candidates to teach mathematics through content courses.

(3) **CONTENT STANDARDS AND ASSESSMENT** - The professional knowledge courses provide opportunities for FLC students to become knowledgeable about standards and develop assessments to measure K-12 students proficiency related to a particular standard. Course syllabi, discussions with students, faculty, teachers and administrators at the K-12 settings, and student work from varied samples demonstrated that knowledge, understanding and application of content standards and assessment were evident.

(4) **CONTENT** - The professional knowledge content met the standards adopted by the State Board of Education.

(5) **CLASSROOM AND INSTRUCTIONAL MANAGEMENT** - On site review and discussions with students, faculty and administrators provided a clear determination that these areas are presented, discussed and applied throughout each field based experience. It is evident, that to the extent possible for teacher candidates, that classroom and instructional management is a strength within program operation. The professional school settings provide the most extensive opportunity in a supervised setting for this to occur and for students to attain proficiency.

(6) **INDIVIDUALIZED INSTRUCTION** - The knowledge and application of the assessment components within each licensure area supports the individualization of instruction. Knowledge of the benchmarks for students in K-12 in the Model Content Standards is a consistent base evident in plans and lesson development. Given the knowledge of the Model Content Standards and the success level of assessment application of Fort Lewis teacher candidates, this is a strong component of the curriculum review.

(7) **TECHNOLOGY** - Knowledge and utilization of technology is infused throughout the licensure areas of the Fort Lewis Teacher Education Program. Students are aware of and apply technology as has been demonstrated and modeled by the college faculty throughout the course preparation. Evidence within the syllabi, plans and student work demonstrate this infusion.

(8) **EDUCATIONAL GOVERNANCE** - Governance of the educational setting is discussed and operationalized from the inception of the teacher education program in

its courses, student contacts, and consistent field based experiences. Students demonstrate successful operation of this area as they proceed through the program culminating in the student teaching setting.

Sources of Evidence:

Verification of the students' breadth and depth of understanding of the curriculum to successfully teach in the Colorado standards based classroom was determined by the review of student materials, syllabi, individual meetings with current and past students, faculty and the K-12 classroom teachers and administrators. As indicated above, considerable review occurred to verify each of the aforementioned areas.

Strengths:

Evident throughout the review of plans, portfolios and meetings with classroom teachers and administrators, the Fort Lewis College teacher education program has been consistently preparing students to meet the Colorado professional content standards at each licensure level. All faculty with whom students have had contact (Arts and Science and Education) in the defined academic and professional knowledge areas are aware of and teach to the Colorado standards-based classroom.

Weaknesses:

FLC has addressed the weaknesses in literacy and mathematics. However the review team recommends that CCHE visit FLC in 2001-02 to see the implemented courses.

Statutory Performance Measure:

f. Comprehensive assessment of candidate's knowledge of subject matter.

General Comments:

(1) Fort Lewis College teacher education program has introduced placement tests in reading, writing and mathematics that the teacher education applicant must pass prior to admission to the teacher education program.

(2) FLC has selected an assessment for general education knowledge and writing that all students will take as part of the second general education writing course.

(3) FLC teacher education program requires that students take the PLACE content exam prior to admission to the post-baccalaureate program and prior to student teaching in the undergraduate program.

(4) Assessment of student ability to teach content to youth in school occurs by using a variety of tools including a three-level process in implementing the use of Teacher Work Samples, student portfolios and student teacher appraisals. Work samples are being used in partner schools while the student teacher appraisals are still under construction

Sources of Evidence:

Review of course syllabi
Review of assessment materials
Meetings with supervising faculty and the K-12 classroom teachers and administrators regarding assessment during the field experience

Strengths:

FLC has developed a comprehensive assessment plan. Four phases are identified as decision points for a student's continuation in the program, including 1) pre-admission, 2) student teaching candidate selection, 3) student teaching, 4) qualification for a teaching license. The student teaching and licensure assessment strategies are aligned with SBE's performance standards.

Pre-admission standards include high school preparation, basic skills testing in reading, writing and mathematics.

Prior to student teaching, the student must meet academic standards, including a 2.5 college g.p.a. and demonstrate mastery of the proficiencies identified on FLC's Proficiency Log (i.e., verified by a Teacher Education faculty member). The PLACE content exam must also be passed prior to student teaching.

Prior to licensure recommendation, the teacher education candidate must present a Teacher Work Sample that is linked to K-12 content standards, a 3-5 week instructional

plan, formal evaluation by the supervising K-12 teacher, and a portfolio that demonstrates proficiency with the range of skill and knowledge associated with teaching. Each student presents the portfolio to a three-member panel and is rated on the portfolio content and their presentation.

Weaknesses:

The following chart provides an overview of the assessment

Teacher Education Authorization	**Degree Program**	**Content Knowledge**	**General Education Knowledge**	**Professional Knowledge**
Early Childhood	Interdisciplinary Studies	PLACE exam and course assessments	ETS Academic Performance Profile	Fort Lewis College uses the following assessments to evaluate mastery of teaching skills and knowledge: √ in-course assessments √ proficiency log √ student teaching evaluations by supervising teachers √ student teaching evaluations by college consultants √ private evaluation by supervising teacher √ portfolio √ program exit survey √ alumni survey All assessments are aligned with Performance-based Standards for Colorado Teachers. The Proficiency log results in proficiency verification for each of the 45 elements in the standards.

Elementary	Interdisciplinary Studies		Thematic Studies I & II Assessment Program	
Secondary				
	Business Admin.			
	English Education			
	Mathematics			
	Biology Chemistry Earth Science Physical Science			
	History Humanities			
	Spanish			
K-12	Art			
	Physical Educ.			
	Music Educ.			
Post-Baccalaureate	All licensure areas	PLACE exam and transcript review	N/A	

Notes:

Partnership I students complete all Teacher Education core courses within a single school year while in a partnership with a mentor teacher. A Teacher Education faculty member coordinates and conducts the integrated course of study primarily on-site in the partnership school.

Partnership II students complete all Teacher Education core courses within two school years while in a partnership with a mentor teacher. A Teacher Education faculty member coordinates and conducts the integrated course of study primarily on-site in the partnership school.

TOPIC: **TEACHER EDUCATION AUTHORIZATION: MESA STATE COLLEGE**

PREPARED BY: **DIANE LINDNER/SHARON M. SAMSON**

I. SUMMARY

CCHE, in conjunction with Colorado Department of Education, has been reviewing teacher education programs offered by Colorado colleges and universities. The staff has completed the site reviews and will be forwarding teacher education program authorizations to the Commission for approval in March, April and June.

The agenda item provides an in-depth look at Mesa State College's teacher education programs and an evaluation of the quality of the program design and capacity to become a performance-based model.

The staff recommends approving teacher education authorization for Mesa State College including:

LICENSURE LEVEL	DEGREE PROGRAM
Elementary Education	Liberal Arts
Secondary Education	Biological Sciences
	Physical Sciences (Geology with Earth Science)
	Physical Sciences (Physics)
	English
	History
	Mathematics
K-12 Education	Art
	Music
	Human Performance and Wellness
	Post-baccalaureate in all of the above

II. BACKGROUND

The on-site visit occurred on November 16 and 17, 2000. Curriculum materials were read by two individuals from higher education, Pat Hagerty, UCD and David Nelson, Dean, UCCS. Both individuals are administrators involved in teacher education. The curriculum reviewers read the material and developed questions and areas needing investigation. The site review team met to consider the written comments of the readers

and discuss their findings. The site review team spent two days on the campus of Mesa State College.

The review team included:

Florence Arellano - retired DPS principal
Lynn Bamberry – Literacy/Title 1, Sheridan School District
Diana Walcher – Elementary/Special Education Teacher
Bill Ottey – Assistant to the Commissioner, CDE
Dorothy Snozek – CCHE
Diane Lindner – CCHE

III. STAFF ANALYSIS

The strengths of the teacher education programs at MSC include:

- Mesa State College's teacher education program assures that all teacher candidates have selected a major, have assigned advisors, and have a defined Program Plan for completion. MSC requires faculty members to meet with assigned teacher education candidates at least once per year by the content advisor and once per semester by the education advisor. If the student is falling behind in credit hours or has a low GPA, the two advisors meet with the student each term.
- Curricular revisions made to ensure the program could be completed in four years did not compromise the content knowledge. There was no reduction in credit hours in the content area majors. Content area faculty redesigned courses to meet Colorado content standards.
- The focus on selected degree programs has resulted in a coherent curriculum. This applies to all undergraduate degree programs seeking teacher education authorization.
- Mesa has integrated mathematics into all methods courses. The Compass Placement test is effectively used to appropriately place teacher candidates in the proper mathematics courses. A PRAXIS examination ensures competency in necessary mathematical skills for elementary candidates before entering the teacher preparation program.
- The training of elementary teacher candidates to teach reading is well done. Instructors model the techniques in off-campus K-12 settings. Content area literacy aims at meaning-making strategies; techniques for teaching English language learners are emphasized, as is six-tract writing.
- The K–12 faculty and administration are supportive of and demonstrate a continued desire to provide quality and meaningful experiences for the teacher education candidates of Mesa State College. The entire campus supports the teaming of the K-12 schools and the college. A pervasive philosophy that by being a part of the K-12 schools, college faculty are providing a valuable service and "growing their own" exists.

- Theory is integrated with practice. Every education course has a field component. Partner school arrangements provide outstanding venues for integrating theory with practice.
- The proficiency of students in the standard elements is assessed throughout the program assuring that the candidate is proficient at time of entry into the profession.
- The partner school model as developed by MSC provides continuous involvement of teacher education and arts and science faculty from program inception to completion.
- Evident throughout was the review of plans, portfolios and meetings with preparation of students to meet the Colorado professional content standards. The elementary, K-12 and secondary education licensure components have successfully addressed each of those components.
- Mesa developed their assessment model to include performance-based assessments of the standard elements; mini work samples are introduced in the methods courses and candidates have additional practice in field experiences.
- A review of the field experience and student teaching components of the licensure programs defines precisely how the teacher meets the knowledge of content during the field experiences.

The analysis of MSC's teacher education programs is described in detail in the Report of the Teacher Education Review Team (Attachment A). It is supported by content analysis of MSC's General Education curriculum and its degree programs that are seeking teacher education authorization.

These documents support the staff recommendation for full approval for Mesa State College's teacher education programs.

COLORADO COMMISSION ON HIGHER EDUCATION

Report of On-Site Review Team
Teacher Education

MESA STATE COLLEGE

Statutory Performance Measure:

a. Admission System
(Comprehensive admission system, which includes screening and counseling for students who are considering becoming teacher candidates.)

General Comments:

(1) Mesa State College maintains a comprehensive admission system with the same admission criteria for students who begin their degree at Mesa and those who transfer from a community college. The admissions criteria includes a minimum 2.75 grade point average of at least 60 credit hours of college credits; successful (grade defined) completion of prerequisites including English, Speech, Psychology, Mathematics and the beginning Education course, Education 211.

(2) The PRAXIS test for Basic Mathematics skills will be administered to all students who are preparing for the licensure program at Mesa State College. If students do not pass the PRAXIS test, they will be recommended to the appropriate remedial course to correct their deficiencies. After they have successfully completed this course, they will again take the PRAXIS test. Successful completion of the PRAXIS exam will allow students to enroll in the Mathematics 105 course and continue to pursue teacher preparation. Basic skills in English are tested through a writing sample that is scored with a trait-scoring rubric for norming the entrance essays. Students who do not pass will not be accepted into the program until they demonstrate proficiency. They will be recommended to the Mesa State College Writing Center for help and practice before writing another writing sample.

(3) Applicants must also complete the entrance requirements by demonstrating a B or better in English 111 or 112 and a C or better in Math 105 and 205 or equivalent. Evaluated Work Samples must be submitted from both the English and Mathematics classes. An applicant seeking admission without the prerequisites must get approval from the Teacher Education Advisory Council. They may be granted conditional admission.

(4) Students must document completion of 100 hours of experience with children at the age level the student plans to teach that has occurred within the past five years.

(5) Students admitted to the post baccalaureate program are evaluated against the same criteria and undergo a transcript review to ensure coursework has been appropriate. Applicants must complete a Program Plan and pass the PLACE content exam. Content and education faculties analyze the transcripts to determine that sufficient

content coursework has been taken and, if content-specific coursework is missing, leveling courses are identified for the student to complete.

(6) Students receive a handbook identifying steps within the process of admission through program completion. The handbook includes a flow chart that helps students understand the program requirements and sequence. To implement this process, a monitoring system tracks student progress. A careful analysis of records on site and discussions with students verified that the precise process described is used for admission to teacher education. Information is published within the student handbook for teacher education and students are aware of the policies.

(7) Mesa State College has a negotiated transfer agreement on file with Colorado Mountain College and Colorado Northwest Community College.

(8) A screening process to identify successful teaching candidates has been developed and is in operation. A student record will indicate if a student is formally admitted, conditionally admitted, or denied admission. Standards for each are documented and evidence has been provided at each level that students are treated equitably and in alignment with standards identified. Each degree program has written and published a policy that describes the academic and professional expectations of teacher candidates. The counseling process includes individual advisement and monitoring of future teacher candidates. Two advisors are assigned to each student, one in the academic major and one in education.

Sources of Evidence:

Review of student files and meetings with current and past students has verified the system for education is in place, is not confusing and is helpful for successful completion. Education checks are in place to ensure that the system is data driven. Check off sheets, Program Plans, and course-by-course identifications are used.

Strengths:

Mesa State College's new admission system assures that all admitted teacher candidates have selected a major, have assigned advisors and have a defined academic plan.

Weaknesses:

There are no weaknesses defined in this area.

Statutory Performance Measure:

b. Ongoing Screening and Counseling of teacher candidates by practicing teachers or faculty members.

General Comments:

(1) The counseling process is characterized by individual student advisement and monitoring of future teacher candidates throughout the process. Two advisors advise students, one in the academic major and one in teacher education.

(2) To facilitate the monitoring of each student's academic progress, the college faculty utilizes a database. The database includes defined program requirements so Mesa can monitor each student's progress to degree and licensure. Advising records are maintained in a central area and contain specific reference to advice provided and actions taken throughout the student's program. The program is also designed to address content deficiencies of the post-baccalaureate student.

(3) Faculty advisors are cognizant of continuous progress and what programmatic requirements are yet to be met. Advising records are kept and maintained in a central program area with specific reference to advice provided and actions taken throughout the student's program. Electronic data base forms have been started in fall 2000 for students entering the program through the introductory Education course.

Sources of Evidence:

Student file review, meetings with current and past students and faculty and administrators were held on-site.

Strengths:

Mesa State College's teacher education program assures that all teacher candidates have selected a major, have assigned advisors, and have a defined Program Plan for completion. MSC requires faculty members to meet with assigned teacher education candidates at least once per year by the content advisor and once per semester by the education advisor. If the student is falling behind in credit hours or has a low GPA, the two advisors meet with the student each term.

Check off sheets, four year plans, phase progress reports and course by course identifications are used as verification at the end of the process and includes formal sign-off.

Weaknesses:

There are no weaknesses identified in this area.

Statutory Performance Measure:

c. Course work and field based training that integrates theory and practice (i.e. early field experience) and educates teacher candidates in the methodologies, practices and procedures of teaching standards-based education.

General Comments:

(1) Content Major: The undergraduate curriculum of teacher education is designed so teacher education candidates can complete their respective programs within four years. There was no evidence of hidden prerequisites. Program hours for graduation or completion of teacher candidacy range between 121 and 128 credit hours. The B.A. in Liberal Arts with a Concentration in Elementary Education requires 128 credit hours, the B.A. in English requires 121 credit hours, Mathematics requires 123 credit hours, Biological Science requires 123 credit hours, Physical Science: Earth Science requires 123 credit hours, Physics requires 126 credit hours, Human Performance and Wellness requires 124 credit hours. Post-baccalaureate programs require 36 credit hours.

(2) Professional Knowledge: MSC faculty have redesigned courses to meet the Colorado Department of Education Performance-Based Standards in Early Childhood, Elementary, Physical Education, Music Education, Art Education, and Secondary Education. The current professional knowledge syllabi were available and provided evidence of the performance-based standards. New courses began in fall 2000; others are scheduled to begin in January 2001. Classroom visits evidenced that course operation with performance based standards were a reality. Students were knowledgeable about and addressed performance based standards with ease.

(3) Professional knowledge courses are coupled with extensive field experience. For students seeking licensure, the required courses within the core support and/or extend discipline competency. There are four phases of field experience culminating in the teaching internship. During the third phase, “Methods of Teaching”, teacher candidates learn methods in the classroom and in the schools through their field experiences. Strategies of teaching in the content areas are taught in this third phase. During the final (fourth phase), the teacher candidates participate in a team-teaching approach in the classroom. Coursework is clearly defined and linked to standards. All coursework is packaged with standards and integrated into portfolio and teacher work samples.

(4) Integration across the Curriculum: The Teacher Education Advisory Council (TEAC) provides opportunities for continuing dialogue and exchange of information across academic disciplines. It was evident that with the inception of SB 99-154 and the new statutory measures, Mesa State College began almost immediately to address the needed changes. Decreased hours for program completion was negotiated and all course syllabi were rewritten to incorporate teacher performance assessment standards. Content area faculty are knowledgeable of and incorporate model content

standards into the curriculum. Literacy, mathematics, diversity and technology instruction is integrated into every education course.

Sources of Evidence:

Degree program curriculum was reviewed. Course syllabi were reviewed and class audits completed.

Strengths:

Curricular revisions made to ensure the program could be completed in four years did not compromise the content knowledge. There was no reduction in credit hours in the content area majors. Content area faculty redesigned courses to meet Colorado content standards.

The focus on selected degree programs has resulted in a coherent curriculum. This applies to all undergraduate degree programs seeking teacher education authorization.

The total curriculum of: Elementary and Early Childhood Education, Secondary Education and K-12 Music, Art Education and Physical Education are evidenced by well-defined curriculum which links the content, including the class assignments, to the Teacher Standards and Model content standards, aligning well-defined learning expectations with opportunities to assess knowledge and skills.

The content majors of:

English
Mathematics
Biological Science
Earth Science
Physics
History
Liberal Arts
Fine and Performing Arts
Human Performance and Wellness

On the content performance measure, the areas are identified by program in the following table.

Teacher Education Authorization	Degree Program	General Education	Content of Major	Professional Knowledge
Elementary Education	Liberal Arts	See General Education analysis	See content analysis	Curriculum is aligned to Colorado Performance based standards with assessments embedded in all syllabi. Integrated field experiences are part of every class and linked sequentially to build on the foundation previously established. Mesa faculty mentor and train K-12 school personnel in performance-based standards. All education coursework contains field experience that is supervised by content and education faculty. All students are formally observed twice in early field experiences and four times in internships. Each education faculty member spends 162 hours in the K-12 schools each semester. PDS faculty are in the K-12 schools three to four days per week.
	Post-baccalaureate	N/A	See assess-ment measurement s	Conventional post-baccalaureate students have the same professional knowledge sequence as the undergraduate students. Those in the PDS model have additional field hours and attend classes held in the PDS school. Faculty are on-site for both supervision of students and teaching classes.
Secondary	Biological Sciences	See General Education Analysis	See assess-ment measurement s	Field experiences with standards-based assessments are integrated with every professional education course. Methods classes, taught by faculty in each discipline, include 75 field hours that are supervised by content faculty. MSC trains all K-12 cooperating teachers to assure teacher candidates are in standard-
	Physical Sciences: Geology with Earth Science			
	Physical Sciences: Physics			
	English			

	History Mathematics			based classrooms. Teacher candidates are expected to adapt content knowledge to the secondary level classroom and are assessed accordingly.
	Post-baccalaureate	See General Education analysis	See admission assessment	Conventional post-baccalaureate students have the same classes and field experiences as undergraduate students. PDS post-baccalaureate students have 1,080 field hours and receive pedagogical knowledge through seminars in a cohort group.
K-12	Fine and Performing Arts: Art Education Music Education Human Performance and Wellness	See General Education analysis	See content analyses	All professional education courses are tied to standards and integrate a field component. As in the secondary area, content faculty teach methods classes and supervise field experiences in these courses.
	Post-baccalaureate	N/A	See admission assessment	Conventional post-baccalaureate students have the same classes and field experiences as undergraduate students. PDS post-baccalaureate students have 1,080 field hours and receive pedagogical knowledge through seminars in a cohort group.

Weaknesses:

There are no identified weaknesses.

Statutory Performance Measure:

d. Each candidate completes a minimum of 800 hours of field experience that relates to predetermined learning standards.

General Comments:

(1) Field experiences at Mesa State College are a part of every professional knowledge course leading to licensure. Teacher candidates are provided the opportunity to relate principles and theories to actual classrooms and schools. Teacher candidates begin their experiences as observers, gradually increasing their teaching responsibilities and assignments. During the teaching internship teacher candidates become the lead instructors in the classroom in cooperation with the mentor teacher.

Teacher candidates work with cooperating teachers in their early field experiences. In their later field experiences, the P-12 master teachers working with teacher candidates are known as mentors. Teacher candidates in professional development schools are called interns. Mesa has clearly delineated responsibilities of cooperating teachers, mentor teachers, teacher candidates, teacher interns, college instructor/supervisor, building principals and the Coordinator of Placements and Admissions.

In the secondary and K-12 licensure areas consistency was evident for the program as a whole. Hours were clearly defined, pre-determined learning standards were identified, and the lessons taught and the faculty follow through into the classroom was evident in the discussions with the students and faculty. Students are prepared on-campus prior to the experience with easily identifiable goals transferred to the classroom settings**.** Performance-based teacher education standards are addressed during student teaching where a teacher Work Sample has been added as a requirement. Student teaching is designed to encompass summative Teacher Work Samples. Student teachers are expected to be on-site, working a teacher's schedule. It is evident that there is an appropriate mix of general education, content knowledge and professional knowledge. Professional education coursework integrates theory and practice and field experiences are included in all courses. Field experiences in the program constitute a total of 835 hours.

(2) Content area faculty assisted in the redesign of the curriculum for the teacher education program and continues to work with the education faculty on the Teacher Education Advisory Council. This council ensures content coursework is aligned with the Colorado content standards.

(3) Criteria have been established for both the selections of the field site and of the cooperating teacher. A signed agreement is required between the field experience site and the university. During the placement process, interviews/observation opportunities are provided for students and feedback is given prior to the final

selection of the site. This process helps to assure that placements are successful. University faculty and K-12 faculty observe and provide feedback and input at pre-determined evaluation points to the teacher candidate.
Each student has the opportunity to deliver instruction, demonstrate how to adapt content knowledge to content standards, develop assessment tools to evaluate achievement of content standards and diagnose learning difficulties. They also work and communicate with parents about student progress and deficiencies and must change teaching styles to respond to student learning needs.

(4) Following are the identified licensure areas, required field experience hours and student dispositions. Each program is at or above the 800 required field experience hours with defined student expectations. On site visitations to K-12 partner schools verified active and quality participation by faculty.

(5) In meetings, observations and discussions with K-12 faculty and administrators at each licensure level, it is evident that positive role models are present for student teachers and students within the field experience components. As stated above, criteria are in place and strong role models ensured through implementation of criteria.

Teacher Education Authorization	Level of Field Experience	Frequency	Scope	Intensity
Elementary	Freshmen	0 Hours		
	Sophomore	20 Hours	Early mentoring; observation	Student begins individual, small group observation. Experiences range from attending school board meetings to observing a variety of school environments, both public and private, at all levels. This is Phase I of the MSC program, designed to ensure that all students understand the teaching profession and the standards-based classroom.
	Sophomore	100 Hours	Working with children in the same age group	Interacting on a direct level. **These hours are required for admission and not included in totals**

	Junior	95 Hours	Developing lessons	Students are responsible for group instruction in Phase II of the MSC program. Experiences range from observation to taking on greater responsibility from cooperating teachers. Includes developing class management strategies relative to the particular classroom placement and teaching strategies for special populations. Experiences are sequential beginning with developing standards-based lessons, assessing student learning with pre- and post-tests and adapting instruction to each student's needs.
	Senior	720 Hours	Direct experience	The first semester is heavily methods-based in literacy, mathematics, science and social studies. Field experiences directly correlate to these areas and are extensions of the coursework. The student is the primary instructor through team teaching in Phase III of the program. They are responsible for the classroom and communication with parents. Lesson plans are designed using standards, especially focused on integrated mathematics units. Pre-assessments are required in all lesson plans as are post-assessments. Students must show raised academic performance over time. Students must also demonstrate alternative teaching strategies and materials to achieve different curricular purposes.
Total		835 Hours		

Secondary	Freshmen	0 Hours		
	Sophomore	20 Hours	Observation, tutoring	The student begins individual, small group observation. Experiences range from attending school board meetings to observing a variety of school environments, both public and private, at all levels. This is Phase I of the MSC program, designed to ensure that all students understand the teaching profession and the standards-based classroom
	Sophomore	100 Hours	Working with children in the same age group	Students must interact with young people on a direct basis. **These hours are required for admission and not included in totals**
	Junior	105 Hours	Developing lessons, direct experience	Students begin individual, small group instruction. Students are responsible for group instruction in Phase II of the MSC program. Experiences range from observation to taking on greater responsibility from cooperating teachers. Includes developing class management strategies relative to the particular classroom placement and teaching strategies for special populations. Experiences are sequential beginning with developing standards-based lessons, assessing student learning with pre- and post-tests and adapting instruction to each student's needs.

	Senior	675 Hours	Student teaching	The first semester field experiences include 75 hours from content methods classes. The student is the primary instructor through team teaching. Content area faculty supervise these experiences through on-site observation, assessment and advisement. During the 600 hour internship, the student plans standards-based lessons, delivers instruction and assesses student learning. The student is the primary instructor through team teaching in Phase III of the program. They are responsible for the classroom and communication with parents. Lesson plans are designed using standards, especially focused on integrated mathematics units. Pre-assessments are required in all lesson plans as are post-assessments. Students must show raised academic performance over time. Students must also demonstrate alternative teaching strategies and materials to achieve different curricular purposes.
K-12	Freshman	0 Hours		The K-12 field experience sequence is similar to the elementary and secondary sequence except that it provides a broader range of grade level experience appropriate to that licensure area.
	Sophomore	20 Hours	Observation, tutoring	
	Sophomore	100 Hours	Working with children in the same age group	
	Junior	140 Hours	Developing lessons, direct experience	
	Senior	640 Hours	Student teaching	
Total		800 Hours		
Post-Baccalaureate	All licensure areas	800-1,080 Hours	Ranges from involvement as directed to the role of primary instructor.	The student is in the same school with the same mentor for a complete year and is considered part of that school's faculty.

A review of the coursework prior to student teaching defines school law preparation that pertains to the classroom. Given the positive responses in the student teaching and field experiences, this will be reinforced by trained cooperating teachers and faculty supervisors as classroom situations develop that are relevant.

Sources of Evidence:

A review was completed of the field experience requirements for each licensure area as they related to pre-determined learning standards. Syllabi provided the basis for analysis of student experiences with many specifically defining how that is to occur. Sample formats were available in many with the direct alignment to content standards. Preparation of students for the field experiences was completed at a variety of levels for student transitions within the programs.

Interviews with faculty and administrators from partner and professional development schools indicated consistently that a significant training effort has been made in the integration of theory and practice. Additionally, each candidate's preparation relates to pre-determined learning standards.

Strengths:

The K–12 faculty and administration are supportive of and demonstrate a continued desire to provide quality and meaningful experiences for the teacher education candidates of Mesa State College. The entire campus supports the teaming of the K-12 schools and the college. A pervasive philosophy that by being a part of the K-12 schools, college faculty are providing a valuable service and "growing their own" exists.

The proficiency of students in the standard elements is assessed throughout the program assuring that the candidate is proficient at time of entry into the profession.

The partner school model as developed by the MSC provides continuous involvement of teacher education and arts and science faculty from program inception to completion.

Weaknesses:

There are insufficient resources allocated to implement a quality professional development school model.

To ensure that all teachers involved with the field experience (through internship as well as other field experiences programs) are prepared to address all performance standards MSC needs to continue and expand the mentor training program.

Statutory Performance Measure:

e. Demonstrate the skills required for licensure as specified by the State Board.

General Comments:

(1) A curriculum review of each degree program by CCHE/CDE Review Team was completed to ensure that the curriculum provides sufficient preparation in the professional content standards with the students and faculty.

LITERACY - The literacy components in the K-12, Elementary and Secondary undergraduate and post-baccalaureate programs are well done. The course syllabi and design directly address the knowledge of literacy model content standards for elementary, K-12 and secondary education and the application of strategies, methodologies and "best practices" for each of the content areas. In addition the coursework incorporates field-based experience enabling teacher candidates to work with students on literacy skills including reading, writing, listening, speaking and mathematics. Instructors model the techniques in off-campus K-12 settings and content area literacy aims at meaning-making strategies. Techniques for teaching English language learners are emphasized, as is six-tract writing. It was evident that this process permeates the program plan with students progressing from the basic, to developing and culminating, to proficiency.

MATHEMATICS AND MATH LITERACY – As noted above, this standard is integrated into the literacy coursework for each of the licensure areas. Mesa State College has the mathematics competency to support the standard within all methods courses. The Compass Placement test is used to place teacher candidates in the proper mathematics course sequence. A PRAXIS exam assures student competency in mathematical skills before entering the teacher education program. The incorporation of mathematics into some of the content areas is still in development.

CONTENT STANDARDS AND ASSESSMENT - Review of the knowledge and application of content standards in each licensure area at the Mesa State College provided a defined process for proficiency in this area. The programs demonstrated proficiency throughout in content standards and assessment. Assessment is also evident throughout the program. Assessment begins in the sophomore year and is taught through practice in field experience to ensure teacher candidates' proficiency.

CONTENT - In each area of content review the knowledge base was evident through syllabi and course descriptions. The newly developed liberal arts major for elementary education teacher candidates effectively supports instruction in the model content areas. Standardized syllabi in content areas address the Performance-Based Standards. The areas of literacy, mathematics, diversity and technology are integrated into all of the education courses. The Teacher Education Advisory Council

connects not only education and arts and sciences faculties, but also representatives of the local school district.

CLASSROOM AND INSTRUCTIONAL MANAGEMENT - On site review and discussions with students and faculty and administrators of the participating schools provided a clear understanding that these areas were appropriately met via university preparation and the concomitant work within the school setting.

INDIVIDUALIZED INSTRUCTION - The knowledge and application of the assessment components within licensure areas supports the individualization of instruction. Mesa has integrated instruction for diverse learners throughout their program.

TECHNOLOGY - Technology is taught through coursework in which the student learns technology for instruction as well as the use of technology itself. A model for Technology Integration contains ten modules that each teacher candidate must complete and submit for a Technology Proficiency Verification.

EDUCATIONAL GOVERNANCE – Mesa has included this standard in their introductory education course, which allows students to understand this aspect of education prior to field experience.

Sources of Evidence:

Verification of the aforementioned areas of strength and breadth of understanding of the curriculum to successfully teach in the Colorado standards based classroom was determined by the review of student materials, syllabi, individual meetings with current and past students, faculty and the K-12 classroom teachers and administrators. As indicated above, considerable review occurred to verify each of the above.

Strengths:

Evident throughout was the review of plans, portfolios and meetings with preparation of students to meet the Colorado professional content standards. The elementary, K-12 and secondary education licensure components have successfully addressed each of those components.

Weaknesses:

The Inventory of Standards Assessment should be constructed to include a record of the demonstrations of proficiency for each standard element.

Statutory Performance Measure:

f. Comprehensive assessment of candidate's knowledge of subject matter.

General Comments:

(1) Prior to admission, students are required to take the PRAXIS exam in mathematics and a trait-scored writing sample in English. The scores determine any leveling courses needed. Mesa assigns students to the appropriate level coursework.

(2) The PLACE content test is required prior to student teaching to ensure content knowledge.

(3) Ongoing course content analysis allows the teacher education program faculty to assess the content through course syllabi and student grades. Students must have a 2.75 grade point average for entry to the teacher education program.

(4) Field assessments on academic and professional content knowledge occur through teacher work samples occurring throughout the field experiences and the major culminating work sample as a part of student teaching, student teaching evaluations, and student portfolios.

(5) Teacher candidates' lessons are built around content standards. Mesa has integrated assessment strategies throughout its courses.

Sources of Evidence:

The team reviewed the assessment plan developed by MSC, the PLACE exam content scores and work samples completed by students. In some cases, the written information provided was supplemented with student and faculty interviews.

Strengths:

PLACE examination of content knowledge

Mesa's development of their assessment model to include performance-based assessments of the standard elements

Teacher candidates assume responsibility for their assignment as they monitor their progress in demonstrating proficiency in the 45 standard elements

Mini work samples introduced in the methods courses and candidates additional practice in field experiences

A review of the field experience and student teaching components of the licensure programs defines precisely how the teacher meets the knowledge of content during the field experiences

Weaknesses:

Mesa will need to submit an overall assessment plan for teacher candidates that follows them through the program to the recommendation for licensure, including the Inventory of Standards Assessment and the role of Teacher Work Samples.

The following chart identifies assessment strengths and weaknesses in the program design. If not noted as excellent or missing, the assessment is acceptable.

Teacher Education Authorization	Degree Program	Content of Major	General Education Knowledge	Professional Knowledge
Elementary Education	Liberal Arts	PLACE content exam 2.75 GPA in content area Portfolio samples from content area Formal evaluation of standards proficiency	For all programs: PRAXIS test for Mathematical Skills Trait-scored writing sample Samples from English 112 and Math 110 or 205 classes	MSC uses the following assessments to evaluate the students' mastery of teaching skills and knowledge: • Work samples • Student teaching assessment • Portfolio assessment The field experience assessments involve observation by content and education faculty incorporating the evaluation of the trained cooperating classroom teacher
Secondary	Biological Sciences			
	Physical Sciences: Geology with Earth Science			
	Physical Sciences: Physics			
	English			
	History			
	Mathematics			
K-12	Art Education			
	Music Education			
	Human Performance and Wellness			
	Post-baccalaureate in all licensure areas above	All of the above are used for post-baccalaureate student assessment plus a transcript review for content with prescribe leveling courses.		The same assessment of field experience is used; 1,080 hours in the field are required of post-baccalaureate students.

TOPIC: **TEACHER EDUCATION AUTHORIZATION: WESTERN STATE COLLEGE**

PREPARED BY: **DIANE LINDNER/SHARON M. SAMSON**

I. SUMMARY

CCHE, in conjunction with Colorado Department of Education, has been reviewing teacher education programs offered by Colorado colleges and universities. The staff has completed the site reviews and will be forwarding teacher education program authorizations to the Commission for approval in March, April and June.

The agenda item provides an in-depth look at Western State College's (WSC) teacher education programs and an evaluation of the quality of the program design and capacity to become a performance-based model.

The staff recommends approving teacher education authorization for Western State College's teacher education programs, including:

LICENSURE LEVEL	DEGREE PROGRAM
Elementary Education	Interdisciplinary Studies English Mathematics
Special Education (as an added Endorsement)	All majors approved for initial licensure
Secondary Education	Biology English Chemistry Earth Science Economics Political Science History Spanish Mathematics Music Physics
K-12 Education	Art Music Kinesiology

*Post-baccalaureate in all of the above areas.

II. BACKGROUND

The on-site visit occurred on October 16 and 17, 2000. Two individuals read the curriculum materials submitted in advance and developed questions and areas needing investigation. The curriculum readers were Pat Hagerty, CU Denver and David Whaley, CSU. The on-site review team included:

Karen Durica – Literacy Coordinator, Douglas County
Dick Koeppe – Retired Superintendent
Diana Walcher – Elementary/Special Education Teacher
Bill Ottey – Assistant to the Commissioner, CDE
Dorothy Snozek – CCHE
Diane Lindner – CCHE

III. STAFF ANALYSIS

The strengths of the teacher education programs at WSC include:

- Western State College's teacher education program requires that all students select a major that is authorized for teacher education, are assigned advisors when they are admitted as teacher education candidates, and have a defined academic plan to assure completion in four years.
- The mix of general education, content knowledge and professional knowledge provides a balance of academic courses and experiences to assure strength of teacher candidate knowledge for elementary, secondary, K-12 and special education.
- Many of WSC's teacher education faculty were hired within the past three years. To this faculty cohort, standards-based education has become an opportunity to improve quality, not a threat to their performance. The senior faculty have led the way for the design and implementation of the new degree programs. All teacher education faculty have significant involvement with the K–12 schools, i.e., spending two days per week in the K-12 classroom.
- Western State College is hiring liberal arts and sciences faculty with K–12 experience whenever possible. Discussions with faculty of the arts and sciences indicated a desire to redesign and strengthen the course content wherever the data indicate that quality can be improved.
- WSC faculty use the scores achieved by WSC students on the PLACE content test to review and strengthen curricula. The Methods Professors' Committee meet to review and discuss which curricular areas are impacted and what changes needed to occur to improve the student performance.
- Western State College, by design, limits the number of field experience hours until the student demonstrates broad knowledge on the sophomore exam. The intensity and frequency of the field experience increases after the student successfully meets the proficiency levels in mathematics, reading, writing, and critical thinking.

Students, in the same way, do not attain senior standing until they successfully pass the PLACE content exam in their field. This design ensures that teacher education candidates do not go into the classroom under-prepared at any point.

- The quality and reputation of the professional development school field experience is high; the professional development schools are outstanding models of standards-based education. K–12 schools are benefiting from the partnership.
- WSC faculty are in the field fifty percent of time evaluating and assisting students.
- A student work sample approach that spans the entire program from admission to completion shows potential for evaluating value-added.
- The selection criteria for cooperating K-12 teachers ensures that the teacher candidate is placed with a "master" teacher who teaches in a standard-based environment.
- Assessment tools are used to identify how prospective teachers meet the knowledge of content during the field experiences. A number of new assessments, co-developed with arts and science faculty and K-12 teachers and administrators are used.

The analysis of WSC's teacher education programs is described in detail in the Report of the Teacher Education Review Team (Attachment A). It is supported by content analysis of WSC's General Education curriculum and its degree programs that are seeking teacher education authorization.

These documents support the staff recommendation for full approval for Western State College's teacher education programs.

TOPIC: **TEACHER EDUCATION AUTHORIZATION: UNIVERSITY OF COLORADO AT COLORADO SPRINGS**

PREPARED BY: **DIANE LINDNER/SHARON M. SAMSON**

I. SUMMARY

CCHE, in conjunction with Colorado Department of Education, has been reviewing teacher education programs offered by Colorado colleges and universities. The staff has completed the site reviews and will be forwarding teacher education program authorizations to the Commission for approval in March, April and June.

The agenda item provides an in-depth look at University of Colorado at Colorado Spring's teacher education programs and an evaluation of the quality of the program design and capacity to become a performance-based model.

The staff recommends approving teacher education authorization for University of Colorado at Colorado Spring's teacher education programs, including:

LICENSURE LEVEL	DEGREE PROGRAM
Elementary Education	English
	Mathematics
	Science
	History/Social Science
	Spanish
Special Education	English
	Mathematics
	Science
	History/Social Science
	Spanish
Secondary Education	English
	Mathematics
	Science
	History/Social Science
	Spanish

*Post-baccalaureate in all the above areas

II. BACKGROUND

The on-site visit occurred on December 5 and 6, 2000. Curriculum materials were read by two individuals from higher education, Cliff Brookhart from UNC and David Whaley

from Colorado State University. Both individuals are administrators involved in teacher education. The curriculum reviewers read the material and developed questions and areas needing investigation. The site review team met with Cliff Brookhart to discuss the findings of the readers and prepare for the visit. The site review team spent two days on the campus of UCCS.

The review team included:

Cliff Brookhart - Educational Leadership, UNC
Dick Koeppe - retired Superintendent
Colleen Rickert – Title I Coordinator, Aurora Public Schools
Bill Ottey – Assistant to the Commissioner, CDE
Dorothy Snozek – CCHE
Diane Lindner – CCHE

III. STAFF ANALYSIS

The strengths of the teacher education programs at UCCS include:

- A new appeals process has been implemented for students who are not accepted into the teacher education programs. As part of the appeals process, students receive information on competencies that must be demonstrated to be admitted.
- UCCS assures that all students have been assigned advisors and have declared a major at the time of admission to teacher education.
- The Special Education program has developed an innovative on-line system for monitoring student progress that could be adapted college-wide.
- UCCS's Secondary Education, Elementary Education and Special Education have a focused curriculum, well-defined learning expectations, and opportunities to assess knowledge and skills. Strong emphasis is placed on writing, computing, and mathematics within the core competencies. The general education courses are carefully selected to ensure that all undergraduate students have a broad liberal arts foundation.
- Content area faculty assisted in the redesign of the curriculum for the teacher education program and continue to work with the education faculty to refine the new programs.
- A successful collaboration between the liberal arts and sciences and education faculty and administration during the restructuring of the major area curriculum aligned curriculum with the Colorado Model Content Standards and the Performance-Based Standards for Teachers. The K–12 faculty and administration are supportive of and demonstrate a continued desire to provide quality experiences for the teacher education candidates of the University of Colorado at Colorado Springs.
- The proficiency of students in the standard elements is assessed throughout the program assuring that the candidate is proficient at time of entry into the profession. All teacher candidates are required to purchase the Colorado Model Content

Standards and Grade Level Expectations upon entering the teacher preparation program.

- The professional development school model and professional development cluster school model developed by the University of Colorado at Colorado Springs is outstanding in its scope and intensity, providing excellent interaction between the university and the schools. Site professors spend a day per week at each professional development school. Each professional development school has a site coordinator overseeing the student teachers and field experiences at their schools. A co-teaching model of student teaching is used.
- UCCS faculty members participate in the Teaching and Learning Center, where they study effective teaching, with a special emphasis on the use of technology in instruction. Faculty members have outreach programs to the K-12 schools.
- The special education program has outstanding instructional skills needed to work with diverse learners including English language learners. The two programs could work together in this area to the benefit of all teacher candidates.
- The elementary literacy program is strong; the literacy program emphasizes student assessment and individualization of instruction.
- Embedded assessments in Elementary Education, Secondary Education and Special Education, on teaching skills and professional knowledge combined with the PLACE content exam requirement, assure that teacher candidates are able to effectively teach content material to students.
- Teacher Work Samples are presented in the methods courses. UCCS has done good work in piloting the work samples this year for full implementation in 2001-2002.

The analysis of the University of Colorado at Colorado Springs' teacher education programs is described in detail in the Report of the Teacher Education Review Team (Attachment A). It is supported by content analysis of UCCS's General Education curriculum and its degree programs that are seeking teacher education authorization.

These documents support the staff recommendation for full approval for the University of Colorado at Colorado Springs' teacher education programs.

COLORADO COMMISSION ON HIGHER EDUCATION

Report of On-Site Review Team
Teacher Education

UNIVERSITY OF COLORADO AT COLORADO SPRINGS

Statutory Performance Measure:

a. Admission System
(Comprehensive admission system, which includes screening and counseling for students who are considering becoming teacher candidates.)

General Comments:

(1) The University of Colorado at Colorado Springs has defined admission criteria for students who wish to enter the undergraduate teacher program, which include minimum GPA of 2.5, experience with children and youth, personal and academic references, a career goals statement, and an admission interview. Each criterion is scored on a twenty-point scale. A team composed of a UCCS faculty member, an education student, and faculty from the Professional Development School faculty conducts the admission interview.

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(2) Students who apply to the undergraduate Special Education program must submit ACT/SAT scores and have completed Special Education introductory courses with a B or better.

(3) Applicants for the post baccalaureate teacher programs must pass the PLACE Content test.

(4) Students receive a handbook defining the steps from admission through program completion.

(5) UCCS has negotiated a transfer agreement with Pikes Peak Community College.

(6) UCCS screens potential applicants. Student records include formal admission letters, career goal statement, identified academic deficiencies, and documentation of standards.

(7) Each teacher education program has published a description of the academic standards for admission and the professional expectations of teacher candidates.

Sources of Evidence:

Review of student admission records
Interviews with students

Meetings with admission administrators and staff

Strengths:

UCCS has instituted an appeals process for students who are not accepted into the teacher education programs. As part of the appeals process, students receive information on what they need to demonstrate to be admitted.

Weaknesses:

No weaknesses are identified in this section.

Statutory Performance Measure:

b. Ongoing Screening and Counseling of teacher candidates by practicing teachers or faculty members.

General Comments:

(1) Each student is assigned an advisor. The counseling process includes individual advising and monitoring of teacher candidates until graduation.

(2) To facilitate the monitoring of each student's academic progress, the university is designing a system to receive, grade, evaluate, archive, and document student work and progress in meeting performance standards and Special Education Licensure Program requirements. This system is expected to be fully implemented by June 2001. The University currently uses a "what if" computer simulation program that allows students to view their academic program and grade point average after providing assumptions on credit hours and grades.

(3) UCCS monitors teacher candidates' academic performance. If a student's GPA falls below 2.0, the student is placed on probation and required to meet with their advisor from the Student Success Center.

(4) Advising records are kept and maintained in a central program area with specific reference to advice provided and actions taken throughout the student's program.

Sources of Evidence:

Interviews with current students
Meetings with faculty advisors and administrators
Form review of check off sheets, academic and field experience plans, and course identifications

Strengths:

UCCS assures that all students have been assigned advisors as appropriate and have declared a major at the time of admission to teacher education.

Special education has developed an innovative on-line system for monitoring student progress that could be adapted college-wide.

Weaknesses:

There are no weaknesses identified in this area.

Statutory Performance Measure:

c. Course work and field based training that integrates theory and practice and educates teacher candidates in the content, teaching practices and provides opportunities to apply the content and skills in a standards-based classroom.

General Comments:

(1) UCCS's graduation requirements include 2.0 cumulative GPA, 45 hours of upper division credits, completion of the composition requirement. Completion of the reasoning skills requirement, and a major of 36 hours with 16 upper division credits: The undergraduate curriculum of teacher education is designed so teacher education candidates can complete their degree programs within four years. Special Education is exempt from the four-year requirement.

(2) Until this year, UCCS offered a five-year teacher education program. It has identified five content majors -- English, Mathematics, Science, History/Social Science and Spanish -- that are designed to prepare special education, elementary and secondary teacher education candidates. The curriculum has been redesigned so that students can complete both the content major and the field experience concurrently and graduate within four years.

(3) UCCS's special education program provides the same knowledge base as elementary education programs and requires 23 additional credit hours selected from one of the three Moderate Need tracks. Special Education programs are one of the two degree programs that legitimately may exceed the four-year statutory parameter.

(4) The screening process assures that students entering the post-baccalaureate program have sufficient content knowledge to teach. If students are deficient in content, they must take "leveling" coursework in the content areas in which they are deficient.

(5) The Special Education Licensure Program has 1,223 hours of field experience that align with the professional standards for teachers. Methods of instructional delivery are learned during coursework and opportunities to practice these skills are included throughout the field experience hours. Knowledge of theory and skills learned must be demonstrated with advanced proficiency during the required two-semester student teaching experience. Coursework is designed to be sequential and connect theory, practice and knowledge across the program.

Sources of Evidence:

Review of curriculum of the designated degree programs
Review of course syllabi
Comparison between "old" and "new" syllabi

Strengths:

UCCS's Secondary Education, Elementary Education and Special Education have a focused curriculum, well-defined learning expectations, and opportunities to assess knowledge and skills. Strong emphasis is placed on writing, computing, and mathematics within the core competencies. The general education courses are carefully selected to ensure that all undergraduate students have a broad liberal arts foundation.

Content area faculty assisted in the redesign of the curriculum for the teacher education program and continue to work with the education faculty to polish the new programs.

Weaknesses:

No weaknesses were identified.

Summary:

The following table summarizes the degree programs seeking teacher education authorization and the curriculum's alignment with the performance standards.

Teacher Education Authorization	Degree Program	General Education	Content of Major	Professional Knowledge
Elementary	English Mathematics Biology History Geography Spanish	See General Education Analysis	See Content Analyses	Field experiences are provided in professional development school sites both at early and student teaching field levels. Early field experience combined with coursework starts at the sophomore level in the undergraduate program. The program integrates the teaching of coursework on-site with field experience. Site professors spend a day per week at each professional development school. Students are provided continuous support and feedback as a result of the development of site coordinators overseeing the student teachers and field experiences at each professional development school. A co-teaching model of student teaching is used and is well defined. Cooperating teachers, or clinical teachers in the UCCS model, are selected using definitive criteria. The students plan standards-based lessons, interpret and analyze longitudinal assessment data and have direct responsibility for a classroom of children. The student meets with parents and is

				responsible for student progress.
Special Education	English Mathematics Biology History Geography Spanish	See General Education Analysis	See Content Analyses	The Special Education program requires 1,223 hours of field experience that teaches specific methods of instructional delivery within the coursework and provides opportunities to practice these skills throughout the program. Students receive instruction in data collection, assessment, instructional methods, state and national curriculum standards, special education instructional techniques, program planning, consultation and collaboration with peers, parents, school staff and administrators. Theory and skills are introduced, developed, refined and demonstrated with advanced proficiency during the required two-semester teaching experience. The program integrates the teaching of coursework on-site with field experience. Site professors spend a day per week at each professional development school. Students are provided continuous support and feedback as a result of the development of site coordinators overseeing the student teachers and field experiences at each professional development school. A co-teaching model of student teaching is used and is well defined.

Secondary	English Mathematics Biology Chemistry Physics History Spanish	See General Education Analysis	See Content Analyses	Field experiences are provided in professional development school sites both at early and student teaching field levels. Early field experience combined with coursework starts at the sophomore level in the undergraduate program. The program integrates the teaching of coursework on-site with field experience. Site professors spend a day per week at each professional development school. Students are provided continuous support and feedback as a result of the development of site coordinators overseeing the student teachers and field experiences at each professional development school. A co-teaching model of student teaching is used and is well defined. Cooperating teachers, or clinical teachers in the UCCS model, are selected using definitive criteria. The students plan standards-based lessons, interpret and analyze longitudinal assessment data and have direct responsibility for a classroom of children. The student meets with parents and is responsible for student progress. The post-baccalaureate program is conducted on a “Professional Year” schedule at professional development schools. Each professional knowledge course is sequenced with field experience. The student begins with classroom observations and small group/individual tutoring for summer and early fall. Late fall includes more complex small group instruction and student teaching is done in the spring. The post-baccalaureate program integrates the teaching of coursework on-site with field experience. Site professors spend a day per week at each professional development school. Students are provided continuous support and feedback as a result of the development of site coordinators overseeing the student teachers and field experiences at each professional development school.
	Post-baccalaureate in elementary, secondary, and special education	N/A	N/A See Admissions Statement	

Statutory Performance Measure:

d. Each candidate completes a minimum of 800 hours of field experience that relates to predetermined learning standards.

General Comments:

(1) In the special education, elementary and secondary licensure, hours were clearly defined, predetermined learning standards were identified with lessons taught and the education faculty involvement in the classroom was evident in the discussions with the students and faculty. Students are prepared on-campus prior to the experience with easily identifiable goals transferred to the classroom settings**.** All performance-based teacher education standards are addressed during student teaching, where a teacher candidate must demonstrate advanced proficiency in the Performance-Based Standards. Student teaching is designed to encompass summative Teacher Work Samples. Student teachers are expected to be on-site, working a teacher's schedule for 16 weeks for elementary and secondary endorsement students and 32 weeks for special education endorsement students.

(2) Professional education coursework integrates theory and practice with field experiences in all professional knowledge courses. Field experiences in the program constitute a total of 963 hours for elementary, 1,047 for secondary and 1,223 for special education.

(3) UCCS has defined criteria to identify and select K-12 teachers as master teachers for the field experience. Special Education cluster schools must also assure that they have sufficient numbers of special education students in each classroom to foster the type of field experiences that teacher candidates need.

(4) Special education uses a cluster PDS model that includes an elementary, middle and high school. Beginning 2001, partnership agreements will be in place for each professional development school and professional development school cluster site. Roles and responsibilities of the clinical teachers, site coordinators, university supervisor and student teachers are clearly delineated. Training for clinical teachers in the field will be held as half-day workshops to discuss competencies required for student teachers including the Performance-Based Standards for Colorado Teachers. Site coordinator training is also being developed in Performance-Based standards required for teachers.

(5) During the filed experiences, students have the opportunity to deliver instruction, demonstrate how to adapt content knowledge to content standards, develop assessment tools to evaluate achievement of content standards and diagnose learning difficulties. They also work and communicate with parents about student progress

and deficiencies and must change teaching styles to respond to student learning needs.

Following are the identified licensure areas, required field experience hours and student dispositions. Each program is above the 800 required field experience hours and has defined student expectations. On site visitations to K-12 partner schools verified active and quality participation by education faculty.

Teacher Education Authorization	Level of Field Experience	Frequency	Scope	Intensity
Elementary	Freshmen	0 Hours		
	Sophomore	45 Hours	Early mentoring; observation	Student begins individual, small group instruction. The student is expected to diagnose a child's reading problems, plan instructional interventions and teach prepared reading lessons. A pre- and post-test are required. A clinical teacher and supervising faculty member observe, evaluate and provide feedback to the student.
	Junior	318 Hours	Developing lessons and small group instruction	The student begins small group instruction. Students must model teaching an integrated lesson plan using mathematics as an emphasis. Teaching experiences start with curriculum design, classroom management and move to assessment, diagnosis and modification of instruction. Faculty observe once per week and students communicate with faculty on a weekly basis. Students practice delivering lessons in a pds model with trained faculty.
	Senior	600 Hours	Direct Experience	The student plans standards-based lessons, interprets and analyzes longitudinal assessment data and has direct responsibility for a classroom of children. The student meets with parents and is directly responsible for student progress. Education faculty are present on a weekly basis in the K-12 classroom to provide assistance and evaluate

				student performance. Classes may also be taught on-site.
Total Secondary	Freshmen	963 Hours		
	Sophomore	45 Hours	Observation, Tutoring	The student must develop an instructional unit in their content major and demonstrate it in a small group using a variety of strategies and assessments. They must also use technology as part of the lesson. A clinical supervisor and faculty member observes students.
	Junior	402 Hours	Developing lessons, direct Experience	The student continues to teach small groups. They co-teach with a faculty member in a professional development school. Students model teaching a lesson plan they designed and are critiqued by faculty and peers. Tutoring experiences are sequential, starting with curriculum design, moving into assessment and progressing to diagnostics. Instructor supervision occurs on-site and through communication with a trained clinical teacher.
	Senior	600 Hours	Student Teaching	The candidate/student is a primary instructor and co-teaches with the clinical teacher. The teacher candidate plans standards-based lessons, interprets and analyzes assessment data and has direct responsibility for a classroom of children. The teacher candidate meets with parents and is responsible for recording and assessing student progress.
Total		1,047 Hours		
	Post-baccalaureate in all of the above			The post-baccalaureate student has a one-year program, called the "professional year". The sequence mimics the other professional field experiences, but takes place in a summer and academic year.

Sources of Evidence:

Visit to the professional development schools to observe field experiences.
Interviews with student teachers.

Strengths:

Noted above is a successful collaboration between the liberal arts and sciences and education faculty and administration during the restructuring of the major area curriculum to align with Colorado Model Content Standards and the Performance-Based Standards for Teachers. The K–12 faculty and administration are supportive of and demonstrate a continued desire to provide quality and meaningful experiences for the teacher education candidates of the University of Colorado at Colorado Springs.

The proficiency of students in the standard elements is assessed throughout the program assuring that the candidate is proficient at time of entry into the profession. All teacher candidates are required to purchase the Colorado Model Content Standards and Grade Level Expectations upon entering the teacher preparation program.

The professional development school model and professional development cluster school model developed by the University of Colorado at Colorado Springs is outstanding in its scope and intensity, providing excellent interaction between the university and the schools. Site professors spend a day per week at each professional development school. Each professional development school has a site coordinator overseeing the student teachers and field experiences at their schools. A co-teaching model of student teaching is used.

Weaknesses:

UCCS lacks resources to include LAS faculty in the partner school evaluation of student teachers.

Statutory Performance Measure:

e. Demonstrate the skills required for licensure as specified by the State Board.

General Comments:

(1) A curriculum review of each degree program by CCHE/CDE Review Team and detailed follow up by CCHE staff was completed to ensure that the curriculum provides sufficient preparation in the professional content standards with the students and faculty.

LITERACY – The elementary literacy program is strong. Elementary candidates participate in a reading clinic. UCCS has a reading clinic that provides training in the assessment of reading difficulties.

The special education candidates learn one approach to reading. Special education candidates are encouraged, but not required to take literacy courses offered to TEP candidates. UCCS has considerable strength in the elementary literacy program that could be used in the special education program. This component of the elementary program was a collaborative accomplishment by the education faculty and the arts and sciences faculty. It was evident that this process permeates the program plan with students progressing from the basic to developing and culminating to proficiency.

MATHEMATICS AND MATH LITERACY –The University of Colorado at Colorado Springs has the mathematics courses to support the standard within the general education program. Most current UCCS teacher candidates are post-baccalaureate students and have received mathematics training elsewhere. The university screens for mathematics competence and has methods courses linked to field experience in the secondary program. The teaching of mathematics in the content area is not well defined.

CONTENT STANDARDS AND ASSESSMENT –Both standards and methods of assessments are part of each lesson prepared by teacher candidates. The programs demonstrated proficiency throughout in content standards and assessment. Assessment is also evident throughout the program particularly in the literacy program. Assessment begins in the sophomore year and is taught through practice in field experience to ensure teacher candidates' proficiency.

CONTENT – Review of the professional knowledge courses indicated that the content of these courses are designed to meet SBE's performance standards.

CLASSROOM AND INSTRUCTIONAL MANAGEMENT – Classroom management is covered through coursework as well as in field experiences.

Students interviewed felt comfortable in their ability to manage classes with diverse populations.

INDIVIDUALIZED INSTRUCTION – The knowledge and application of the assessment components within licensure areas supports the individualization of instruction. Teacher candidates deal with these issues in the Contemporary American Education and Introduction to Special Education courses, with associated fieldwork.

TECHNOLOGY - Technology is taught through coursework in which the student learns technology for instruction and use of technology itself. Technology is infused throughout the program. The building housing the school of education is up-to-date technologically and supports the modeling of technology in the classroom. Faculty receive "podium training" to ensure that they are able to use the technology.

EDUCATIONAL GOVERNANCE – has included this standard in their introductory education course as well as the methods courses, which allows students to understand this aspect of education prior to field experience. UCCS emphasizes the role and importance of professional ethics for teachers.

Sources of Evidence:

Verification of the aforementioned areas of strength and breadth of understanding of the curriculum to successfully teach in the Colorado standards based classroom was determined by the review of student materials, syllabi, individual meetings with current and past students, faculty and the K-12 classroom teachers and administrators. As indicated above, considerable review occurred to verify each of the above.

Strengths:

UCCS faculty members participate in the Teaching and Learning Center, where they study effective teaching, with a special emphasis on the use of technology in instruction. Faculty members have outreach programs to the K-12 schools.

The special education program has outstanding instructional skills needed to work with diverse learners including English language learners. The two programs could work together in this area to the benefit of all teacher candidates.

The elementary literacy program is strong; the literacy program emphasizes student assessment and individualization of instruction.

Weaknesses:

The literacy component of the special education program needs to include more than one approach to reading. The literacy component of the teacher education program could be integrated to assist the special education program.

More attention should be paid to working with diverse learners in the teacher education program, especially as it applies to English language learners. The special education program could assist in that area since it is on the leading edge of instruction for diverse learners.

The Inventory of Standards Assessment should be constructed to include a record of the demonstrations of proficiency for each standard element.

Statutory Performance Measure:

f. Comprehensive assessment of candidate's knowledge of subject matter.

General Comments:

The team examined the assessment of subject matter in three settings – general education, content knowledge of the teacher candidate demonstrated in the college classroom, and the ability to apply the knowledge in the K-12 classroom. In some cases, the information provided in the binders was supplemented with faculty interviews. The CCHE did an analysis of content as a follow-up to the site visit and that analysis is attached to the on-site team report.

The PLACE content test is required prior to student teaching tin the undergraduate program and prior to admission for the post-baccalaureate program to ensure content knowledge. Ongoing course content analysis allows the teacher education program faculty to assess the content through course syllabi and student grades. Students must have a 2.5 grade point average for entry to the teacher education program. Entry to the teacher education program also mandates that students pass a competency test for writing. The institution's general education curriculum also assesses core competencies.

Within each component of the licensure programs of the University of Colorado at Colorado Springs, the curriculum defines and addresses the assessment of student content mastery. The review team identified exemplary practice on-site. The program was designed holistically and places the student first. The University is developing an electronic portfolio that will track candidates' progress through the program.

A review of the field experience and student teaching components of the licensure programs defines precisely how the teacher meets the knowledge of content during the field experiences.

An appropriate dialogue and exchange of information across academic disciplines occurs through the curriculum change process. In addition, the K–12 faculty and administration are supportive of and demonstrate a continued desire to provide quality and meaningful experiences for the teacher education candidates of the University of Colorado at Colorado Springs.

UCCS teacher candidates now maintain a "big box", a dossier to demonstrate achievement of the standards. The university anticipates moving to an electronic portfolio by next year.

Sources of Evidence:

Review of assessment material.

Strengths:

PLACE examination of content knowledge

Embedded assessments in Elementary Education, Secondary Education and Special Education, on teaching skills and professional knowledge

Teacher Work Samples are presented in the methods courses. UCCS has done good work in piloting the work samples this year for full implementation in 2001-2002.

Weaknesses:

UCCS needs to develop a comprehensive assessment plan, tracking candidates through the program and including the use of Teacher Work Samples.

The institution should refine a plan for training clinical teachers in performance-based assessment.

The following chart identifies assessment strategies in the program design.

Teacher Education Authorization	Degree Program	General Education	Content of Major	Professional Knowledge
Elementary and Special Education	• English • Mathematics • Science • History • Geography • Spanish	Writing Sample upon admission Sophomore exam being considered for fall, 2001	PLACE content exam Course Assessments	UCCS uses the following assessments to evaluate the students' mastery of teaching skills and knowledge: • Work samples • Student teaching assessment • Portfolio assessment The portfolio assessment will be electronic in 2001-2002. The critical assessment is the way in which UCCS faculty assesses students in the field and guides them in developing teaching skills. There are three ways teacher candidates are evaluated in the field: • An evaluation plan for field experiences • Professional Work Samples • Student Portfolio The "Student Teacher Performance Standards
Secondary	• English • Mathematics • Biology • Chemistry • Physics • History • Geography • Spanish	Writing Sample upon admission Sophomore exam being considered for fall, 2001	PLACE content exam Course Assessments	

	Post-baccalaureate in all areas	Writing Sample upon admission Sophomore exam being considered for fall, 2001 Transcript review	PLACE content exam Course Assessments PLACE Content exam Transcript review	Performance Standards Record" records each standard element and documents the date, evidence provided and the rubric for evaluation of proficiency. This evaluation is filled in six times during student teaching. There is then a summative evaluation in which teacher candidates are rated on their ability to demonstrate all 45 of the standard elements in the Performance-Based Standards for Colorado Teachers. The candidates are rated from Basic to Advanced by a team of people including the clinical teacher, the site coordinator and the site professor. A midterm and final grade is given for student teaching based on this summative evaluation.

UCCS BIOLOGY B.A.
Elementary Education Option

CURRICULUM	**Credits**
General Education	50
Biology Major	27
Minor/Electives/Supporting	3
Professional Knowledge	37-38
GRADUATION REQUIREMENTS	**117-118**

Students who complete a Biology degree at UCCS are required to enroll in 8 core Biology classes (27 credits)

BIOL 105	Personal Nutrition	3
BIOL 110	General Biology I	3
BIOL 111	General Biology Lab I	1
BIOL 115	General Biology II	3
BIOL 116	General Biology Lab II	1
BIOL 153	Environmental Science	3
Or		
BIOL 370	Ecology	3
BIOL 320	Cell Biology	3
BIOL 383	Genetics	3
Or		
BIOL 481	Biochemistry I	3
BIOL 203	Microbiology	4
Or		
BIOL 310/311	(Untitled)	4
BIOL 425	Evolution	3

In addition, students must enroll in at least 1 supporting science elective course (3 credits).

EAS 150	Introduction to Earth Science I	3
Or		
EAS 151	Introduction to Earth Science II	3

Content Analysis:

The curriculum requirements specified in UCCS's Biology degree program ensures that students are familiar with the disciplines and ideas in biology, including

- Ability to write and speak using conventional grammar, usage, sentence structure, punctuation, capitalization, and spelling. (Composition I-II)

- Apply thinking skills to reading, writing, speaking, listening, and viewing (Composition I-II, Later half of Standard not fulfilled by General Education or degree requirements).
- Understanding that literature is a record of human experience (Introduction to Literature).
- Knowledge of number systems, algebra, and geometric concepts (Math for Elementary Teachers I-II).
- Ability to use a variety of tools and techniques to measure, apply the results to problem solving situations, and communicate the reasoning used in the situations (Math for Elementary Teachers I-II).
- Knowledge of significant events and people in US history and Colorado history (U.S.History: Birth of a Nation, Later half of the Standard is not fulfilled by the degree or general education requirements)
- Understand political institutions and how they change over time (The American Political System, Politics and Policy in State and Local Governments)
- Ability to analyze present-day issues (Economics of Social Issues).
- Knowledge of the physical characteristics of places and use this knowledge to define and study regions (Environmental Systems, Geological Development in Colorado and the West).
- Experience in scientific investigation and design (General Biology I-II).
- Chemistry and Physics knowledge – understand common properties, forms, and changes in matter and energy (Chemistry in the Modern World, Physics in Everyday Life).
- Biology -- Knowledge of the characteristics and structure of living things (General Biology I-II).
- Earth and Space Science – understand the composition of the earth, processes that shaped it, fundamental processes of weather, and the solar system (General Astronomy).

UCCS students will receive an adequate background in the fundamentals of Biology. From the teacher preparation perspective, the degree requirements need strengthening by offering a class that provides students an opportunity to participate in public speaking and work on their listening and viewing skills.
In addition, the degree and general education requirements need to include a Colorado history course.

Conclusions:

The content of UCCS's Biology degree program is aligned with the knowledge that an elementary teacher needs to know.

UCCS ENGLISH B.A.
Elementary Option

CURRICULUM	**Credits**
General Education	49-50
English Major	30
Minor/Electives	
Professional Knowledge	37-38
GRADUATION REQUIREMENTS	**116-118**

Students who complete English degree at the University of Colorado, Colorado Springs are required to enroll in 10 English core courses (30 credits). Required courses include the following.

ENGL 190	Introduction to Literary Studies	3
ENGL 251	British Literature Survey I	3
Or		
ENGL 252	British Literature Survey II	3
ENGL 253	British Literature Survey III	3
Or		
ENGL 254	British Literature Survey IV	3
ENGL 260	Literature: Global Perspective I	3
Or		
ENGL 261	Literature: Global Perspective II	3
ENGL 301	Advanced Composition	3
ENGL 311	Advanced Grammar	3
ENGL 338	American Literature Survey I	3
ENGL 339	American Literature Survey II	3
ENGL 320	Women Writers and Women's Experience	3
Or		
ENGL 346	Race, Writing, and Difference, The Contemporary American Novel	3
Or		
ENGL 355	Native American Literature	3
Or		
ENGL 360	Contemporary African American Literature	3
ENGL 395	Chaucer	3
Or		
ENGL 397	Shakespeare I	3
Or		
ENGL 398	Shakespeare II	3

Content Analysis:

The curriculum specified in UCCS's English degree program ensures that students seeking licensure will have the appropriate knowledge, including

- Ability to write and speak using conventional grammar, usage, sentence structure, punctuation, capitalization, and spelling. (Composition I-II, Advanced Composition, Advanced Grammar)
- Apply thinking skills to reading, writing, speaking, listening, and viewing (Composition I-II, Later half of Standard not fulfilled by General Education or degree requirements).
- Understanding that literature is a record of human experience (Introduction to Literature, British Literature, American Literature, Literature: Global Perspective I-II).
- Knowledge of number systems, algebra, and geometric concepts (Math for Elementary Teachers I-II).
- Ability to use a variety of tools and techniques to measure, apply the results to problem solving situations, and communicate the reasoning used in the situations (Math for Elementary Teachers I-II).
- Knowledge of significant events and people in US history and Colorado history (U.S.History: Birth of a Nation, Later half of the Standard is not fulfilled by the General Education or degree requirements)
- Understand political institutions and how they change over time (The American Political System, Politics and Policy in State and Local Governments)
- Ability to analyze present-day issues (Economics of Social Issues).
- Knowledge of the physical characteristics of places and use this knowledge to define and study regions (Environmental Systems, Geological Development in Colorado and the West).
- Experience in scientific investigation and design (General Biology I-II).
- Chemistry and Physics knowledge – understand common properties, forms, and changes in matter and energy (Chemistry in the Modern World, Physics in Everyday Life).
- Biology -- Knowledge of the characteristics and structure of living things (General Biology I-II).
- Earth and Space Science – understand the composition of the earth, processes that shaped it, fundamental processes of weather, and the solar system (General Astronomy).

UCCS students will have solid grounding in British, American, and Global literatures. From the teacher preparation perspective, the degree requirements need strengthening by offering a class that provides students an opportunity to participate in public speaking and work on their listening and viewing skills. In addition, the degree and general education requirements need to include a Colorado history course.

Conclusion:

The content of UCCS's English degree program is aligned with the knowledge that an elementary teacher needs to know.

UCCS GEOGRAPHY B.A.
Elementary Education Option

CURRICULUM	**Credits**
General Education	49
Geography Major	31
Minor/Electives	
Professional Knowledge	37-38
GRADUATION REQUIREMENTS	**117-118**

Students who complete a Geology degree at UCCS are required to enroll in 5 Geography core courses. (19 credits)

GES 100	Environmental Systems: Climate and Vegetation	4
GES 101	Environmental Systems: Landforms & Soils	4
GES 198	World Regional Geography	3
GES 199	Introduction to Human Geography	4
GES 305	Cartography	4
OR		
GES 400	Introductory Quantitative Methods in Geography	4
OR		
GES 406	Introduction to Remote Sensing	4
OR		
GES 411	Introduction to Field Techniques	4

The student must have 16 hours of upper division courses. Three of these classes must be upper division

Content Analysis:

The curriculum specified in UCCS's Geography degree program ensures that students seeking secondary Teaching licensure will have the appropriate knowledge, including

- Ability to write and speak using conventional grammar, usage, sentence structure, punctuation, capitalization, and spelling. (Composition I-II)
- Apply thinking skills to reading, writing, speaking, listening, and viewing (Composition I-II, Later half of Standard not fulfilled by General Education or degree requirements).
- Understanding that literature is a record of human experience (Introduction to Literature).
- Knowledge of number systems, algebra, and geometric concepts (Math for Elementary Teachers I-II).
- Ability to use a variety of tools and techniques to measure, apply the results to problem solving situations, and communicate the reasoning used in the situations (Math for Elementary Teachers I-II).

- Knowledge of significant events and people in US history and Colorado history (U.S.History: Birth of a Nation, Later half of the Standard is not fulfilled by the degree or General Education requirements)
- Understand political institutions and how they change over time (The American Political System, Politics and Policy in State and Local Governments)
- Ability to analyze present-day issues (Economics of Social Issues).
- Knowledge of the physical characteristics of places and use this knowledge to define and study regions (Environmental Systems, Geological Development in Colorado and the West, World Regional Geography).
- Experience in scientific investigation and design (General Biology I-II).
- Chemistry and Physics knowledge – understand common properties, forms, and changes in matter and energy (Chemistry in the Modern World, Physics in Everyday Life).
- Biology -- Knowledge of the characteristics and structure of living things (General Biology I-II).
- Earth and Space Science – understand the composition of the earth, processes that shaped it, fundamental processes of weather, and the solar system (General Astronomy, Environmental Systems).

UCCS students will have a solid background in the fundamentals of geography. From the teacher preparation perspective, the degree requirements need strengthening by offering a class that provides students an opportunity to participate in public speaking and work on their listening and viewing skills. In addition, the degree and general education requirements need to include a Colorado history course.

Conclusions:

The content of UCCS's Geography degree program is aligned with the knowledge that an elementary teacher needs to know.

UCCS HISTORY, B.A.
Elementary Option

CURRICULUM	**Credits**
General Education	50
History Major	30
Minor/Electives	
Professional Knowledge	37-38
GRADUATION REQUIREMENTS	**117-118**

Students who complete a History degree at UCCS are required to enroll in 5 core history classes (15 credits). The following are required classes.

Student must choose two courses from the following list.

HIST 151	U.S.: Birth of a Nation	3
HIST 152	U.S.: Expansion ad Division, 1789-1865	3
HIST 153	U.S.: Emergence of Modern America	3
HIST 154	U.S.: Recent America, 1918-Present	3

Student must choose two courses from the following list.

HIST 101	The Ancient World	3
HIST 102	Medieval World	3
HIST 103	The Rise of Modern Europe, 1500-1815	3
HIST 104	Modern Europe, 1815-Present	3

HIST 499	Senior Thesis	3

In addition, students are required to enroll in five upper division courses, one of which must be in either Latin American or Asian history (15 credits)

Content Analysis:

The curriculum requirements specified in UCCS's History degree program ensures that students are familiar with the disciplines and ideas in the social sciences, including

- Ability to write and speak using conventional grammar, usage, sentence structure, punctuation, capitalization, and spelling. (Composition I-II)
- Apply thinking skills to reading, writing, speaking, listening, and viewing (Composition I-II, Later half of Standard not fulfilled by General Education or degree requirements).
- Understanding that literature is a record of human experience (Introduction to Literature).
- Knowledge of number systems, algebra, and geometric concepts (Math for Elementary Teachers I-II).

- Ability to use a variety of tools and techniques to measure, apply the results to problem solving situations, and communicate the reasoning used in the situations (Math for Elementary Teachers I-II).
- Knowledge of significant events and people in US history and Colorado history (U.S.History: Birth of a Nation, Later half of Standard is not fulfilled by degree or General Education requirements)
- Understand political institutions and how they change over time (The American Political System, Politics and Policy in State and Local Governments)
- Ability to analyze present-day issues (Economics of Social Issues).
- Knowledge of the physical characteristics of places and use this knowledge to define and study regions (Environmental Systems, Geological Development in Colorado and the West).
- Experience in scientific investigation and design (General Biology I-II).
- Chemistry and Physics knowledge – understand common properties, forms, and changes in matter and energy (Chemistry in the Modern World, Physics in Everyday Life).
- Biology -- Knowledge of the characteristics and structure of living things (General Biology I-II).
- Earth and Space Science – understand the composition of the earth, processes that shaped it, fundamental processes of weather, and the solar system (General Astronomy).

From the teacher preparation perspective, the degree program could be strengthened by requiring a Colorado history course and offering a class that explained how science, technology, and economic activity have developed and changed over time. The degree requirements also need strengthening by offering a class that provides students an opportunity to participate in public speaking and work on their listening and viewing skills.

Conclusions:

The content of UCCS's History degree program is aligned with the knowledge that an elementary teacher needs to know.

UCCS SPANISH, B.A.
Elementary Option

CURRICULUM	**Credits**
General Education	50
Spanish Major	30
Professional Knowledge	37-38
GRADUATION REQUIREMENTS	**117-118**

Students who complete a Spanish degree at the University of Colorado, Colorado Springs are required to enroll in 9 core classes (27 credits).

Students must select 3 classes from the following (9 credits).

SPAN 300	Spanish Grammar	3
SPAN 301	Spanish Conversation and Composition I	3
SPAN 302	Spanish Conversation and Composition II	3
SPAN 401	Advanced Spanish Communication I	3
SPAN 403	Advanced Spanish Communication II	3
SPAN 319	Introduction to Hispanic Literature I	3
SPAN 320	Introduction to Hispanic Literature II	3
SPAN 442	Hispanic/Latino U.S. Literature	3
SPAN 325	Hispanic Culture Studies	3
SPAN 425	The Cultural Heritage in Latin America	3
FCS 398	Field Studies in Language and Culture	3

In addition, the student must take enroll in one additional class in literature (3 credits).

Content Analysis:

The curriculum requirements specified in Spanish degree program ensures that students are familiar with the disciplines and ideas in the social sciences, including

- Understanding how to communicate in a foreign language while demonstrating literacy in all essential skills:
  - -listening, speaking, (Spanish Conversation and Composition, Advanced Spanish and Communication)
  - -reading, and writing (Introduction to Hispanic Literature I & II)
- Knowledge of cultures while developing foreign language skills (Introduction to Hispanic Literature, Hispanic/Latino U.S. Literature, Hispanic Culture Studies).

UCCS students will have a strong background in Spanish language skills and culture.

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Conclusion:

The content of UCCS's Spanish degree program is aligned with the knowledge that an elementary teacher needs to know.

UCCS BIOLOGY B.A.
Secondary Education

CURRICULUM	**Credits**
General Education	46
Biology Major	30
Minor/Electives/Supporting	14
Professional Knowledge	34
GRADUATION REQUIREMENTS	**120**

Students who complete a Biology degree at UCCS are required to enroll in 8 core Biology classes (27 credits)

BIOL 110	General Biology I	3
BIOL 111	General Biology Lab I	1
BIOL 115	General Biology II	3
BIOL 116	General Biology Lab II	1
BIOL 153	Environmental Science	3
Or		
BIOL 425	Evolution	3
BIOL 302	Cell Biology	3
BIOL 383	Genetics	3
BIOL 203	Microbiology	4
Or		
BIOL 310/311	(Untitled)	4
BIOL 481	Biochemistry I	3
BIOL 370	General Ecology	3

Students are required to enroll in one Biology elective (3 credits).

In addition, students must enroll in at least 4 supporting science courses (14 credits).

CHEM 330	Organic Chemistry	5
PES 101	Physics for Life Science I	4
PES 115	Physics Lab	1
GEOL 101	Physical Geology	4

Note: 4 of these credits are taken to fulfill General Education requirements.

Content Analysis:

The curriculum requirements specified in UCCS's Biology degree program ensures that students are familiar with the disciplines and ideas in biology, including

- Understanding the processes of scientific investigation and design, conduct, communication about, and skills to evaluate such investigations (General Biology)
- Knowledge of the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment (Genetics, General Biology, Cell Biology, Environmental Science, General Ecology, Evolution)
- Understanding the processes and interactions of Earth's systems (Physical Geology)
- Knowledge of the common properties, forms, and changes in matter and energy (Not fulfilled by degree requirements)
- Understanding how interrelationships among science, technology, and human activity and how they can affect the world (Not fulfilled by degree requirements)
- Understanding that science involves a particular way of knowing and understanding common connections among scientific disciplines (Not fulfilled by degree requirements)

UCCS students will receive an adequate background in the fundamentals of Biology. From the teacher preparation perspective, the degree requirements need strengthening in several areas. Classes need to be offered that provide students the opportunity to investigate the systems and structure and the structure and dynamics of Earth and other objects in space, to understand the common properties, forms, and changes in matter and energy, to understand how interrelationships among science, technology, and human activity and how they can affect the world, and how science involves a particular way of knowing and understanding common connections among scientific disciplines

Conclusions:

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The content of UCCS's Biology degree program is aligned with the knowledge that a secondary teacher needs to know.

UCCS CHEMISTRY B.A.
Secondary Education

CURRICULUM	**Credits**
General Education	46
Chemistry Major	36
Minor/Electives/Supporting	10
Professional Knowledge	34
GRADUATION REQUIREMENTS	**122**

Students who complete a Chemistry degree at UCCS are required to enroll in 10-13 Chemistry core courses (36 credits)

CHEM 103	General Chemistry I	5
CHEM106	General Chemistry II	5
CHEM331	Organic Chemistry I	3
CHEM 332	Organic Chemistry II	3
CHEM 333	Organic Chemistry Lab I	2
CHEM 334	Organic Chemistry Lab II	2
Or		
CHEM 337	Practical Organic Chemistry I	2
CHEM 338	Practical Organic Chemistry II	2
CHEM 401	Modern Inorganic Chemistry	3
CHEM 417	Analytical Chemistry I	4
CHEM 451	Physical Chemistry I	3
CHEM 483	Biochemistry	3
Students are to choose one course from the following classes		
CHEM 454	Experimental Physical Chemistry	1
CHEM 495	Chemistry Seminar I	1
CHEM 496	Chemistry Seminar II	1
Or		
CHEM 452	Physical Chemistry II	3

In addition, students are required to enroll in 4 science supporting courses (10 credits). These courses include the following.

PES 101	Physics for Life Sciences I	4
PES 102	Physics for Life Sciences II	4
Or		
PES 111	General Physics I	4
PES 112	General Physics II	4
PES 115	General Physics Lab I	1
PES 215	General Physics Lab II	1

Note: 4 of these credits are taken to fulfill General Education requirements.

Content Analysis:

The curriculum specified in UCCS's Chemistry degree program ensures that students seeking secondary Science Teaching licensure will have the appropriate knowledge, including

- Understanding the processes of scientific investigation and design, conduct, and ability to communicate such investigations (Organic Chemistry, General Chemistry, Analytical Chemistry)
- Knowledge of the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment (Organic Chemistry)
- Understanding the common properties, forms, and changes in matter and energy (General Physics, Physics for Life Sciences)
- Understanding the processes and interactions of Earth's systems and structure and the structure and dynamics of Earth and other objects in space (Not fulfilled by degree requirements)
- Understanding how interrelationships among science, technology, and human activity and how they can affect the world (Not fulfilled by degree requirements)
- Understanding that science involves a particular way of knowing and understanding common connections among scientific disciplines (Not fulfilled by degree requirements)

UCCS students will receive an adequate background in the fundamentals of Chemistry. From the teacher preparation perspective, the degree requirements need strengthening in several areas. Classes need to be offered that provide students the opportunity to investigate the systems and structure and the structure and dynamics of Earth and other objects in space, and to understand how interrelationships among science, technology, and human activity and how they can affect the world, and how science involves a particular way of knowing and understanding common connections among scientific disciplines.

Conclusions:

The content of UCCS's Chemistry degree program is aligned with the knowledge that a secondary teacher needs to know.

UCCS ENGLISH B.A.
Secondary Education

CURRICULUM	**Credits**
General Education	46
English Major	39
Minor/Electives	
Professional Knowledge	34-35
GRADUATION REQUIREMENTS	**119-120**

Students who complete an English degree at the University of Colorado, Colorado Springs are required to enroll in 13 English core courses (39 credits). Required courses include the following.

ENGL 190	Introduction to Literary Studies	3
ENGL 251	British Literature Survey I	3
Or		
ENGL 252	British Literature Survey II	3
ENGL 253	British Literature Survey III	3
Or		
ENGL 254	British Literature Survey IV	3
ENGL 260	Literature: Global Perspective I	3
Or		
ENGL 261	Literature: Global Perspective II	3
ENGL 300	Reading and Writing Critically	3
ENGL 301	Advanced Composition	3
ENGL 311	Advanced Grammar	3
ENGL 338	American Literature Survey I	3
ENGL 339	American Literature Survey II	3
ENGL 320	Women Writers and Women's Experience	3
Or		
ENGL 346	Race, Writing, and Difference, The Contemporary American Novel	3
Or		
ENGL 355	Native American Literature	3
Or		
ENGL 360	Contemporary African American Literature	3
ENGL 395	Chaucer	3
Or		
ENGL 397	Shakespeare I	3

Or

ENGL 398	Shakespeare II	3
ENGL 483	Rhetoric and Writing	3
ENGL 485	History of the English Language	3

Content Analysis:

The curriculum specified in UCCS's English degree program ensures that students seeking secondary social science licensure will have the appropriate knowledge, including

- Understanding a wide variety of literature and materials (British Literature Survey, American Literature Survey, Literature: Global Perspective)
- Understanding how to write and speak for a variety of purposes and audiences (Advanced Composition, Rhetoric and Writing)
- Knowledge of conventional grammar, usage, sentence structure, and punctuation (Advanced Composition, Advanced Grammar)
- Knowledge of how to apply thinking skills to their reading and writing (Advanced Composition, Reading and Writing Critically)
- Understanding how to recognize literature as a record of human experiences (British Literature Survey, American Literature Survey, Literature: Global Perspective, History of the English Language)
- Understanding how to read to locate, select, and make use of relevant information form a variety of media, reference, and technological sources (Not fulfilled by the degree requirements)

UCCS students will have solid grounding in British, American, and Global literatures. In addition, UCCS students will have a strong foundation in the components of reading and writing. From the teacher preparation perspective, the degree requirements could be strengthened by offering a class that allowed students to understand how to read to locate, select, and make use of relevant information form a variety of media, reference, and technological sources.

Conclusion:

The content of UCCS's English degree program is aligned with the knowledge that a secondary teacher needs to know.

UCCS HISTORY B.A.
Secondary Social Studies Education

CURRICULUM	**Credits**
General Education	45
Social Science Major	30
Minor/Electives/Supporting	12
Professional Knowledge	34-35
GRADUATION REQUIREMENTS	**121-122**

Students who complete a History degree at UCCS are required to enroll in five core social science classes (30 credits).

Students must choose two courses:

HIST 151	U.S.: Birth of a Nation	3
HIST 152	U.S.: Expansion ad Division, 1789-1865	3
HIST 153	U.S.: Emergence of Modern America	3
HIST 154	U.S.: Recent America, 1918-Present	3

Students must choose two courses:

HIST 101	The Ancient World	3
HIST 102	Medieval World	3
HIST 103	The Rise of Modern Europe, 1500-1815	3
HIST 104	Modern Europe, 1815-Present	3
HIST 499	Senior Thesis	3

Students are required to enroll in five upper division history elective courses and must include at least one class in Latin American or Asian history (15 credits).

In addition, students are required to enroll in four supporting social science classes. (12 credits) These course include the following:

PSC 110	American Political System	3
PSC 101	Introduction to Global Politics	3
ECON 101	Introduction to Microeconomics	3
ECON 102	Introduction to Macroeconomics	3

Content Analysis:

The curriculum requirements specified in History degree program ensures that students are familiar with the disciplines and ideas in the social sciences, including

- Understanding the chronological organization of history and how to organization events and people into major eras to identify and explain historical relationships (American History and Western Civilization concentrations)

- Understanding that societies are diverse and have changed over time (American History and Western Civilization concentrations)
- Knowledge of how political institutions and theories have developed and changed over time (American Political System, Introduction to Global Politics)
- Knowledge of how religious and philosophical ideas have been powerful forces throughout history (Western Civilization concentration)
- Understanding how science, technology, and economic activity have developed and changed over time (Introduction to Macroeconomics, Later half of Standard not fulfilled by degree requirements)

UCCS students will have an adequate background in American history and Western Civilization. From the teacher preparation perspective, the degree requirements could be strengthened by requiring a Colorado History class and a Comparative History upper division course. In addition, a class should be offered that provides students an opportunity to explore how science and technology have developed and changed over time and their influence on human activities. This degree program also lacks a clearly defined focus in terms of historical inquiry.

Conclusion:

The content of UCCS's History degree program is aligned with the knowledge that a secondary science teacher needs to know.

UCCS MATHEMATICS B.A.
Secondary Education

CURRICULUM	**Credits**
General Education	42
Math Major	43
Minor/Electives	
Professional Knowledge	34-35
GRADUATION REQUIREMENTS	**119-120**

Students who complete a Math degree at the University of Colorado, Colorado Springs are required to enroll in 14-15 Math core courses (43 credits). Required courses include the following.

MATH 135	Calculus I	4
MATH 136	Calculus II	4
MATH 215	Discrete Mathematics	3
MATH 235	Calculus III	4
MATH 310	Statistics for the Sciences	3
Or		
MATH 381	Introduction to Probability and Statistics	3
MATH 311	Number Theory	3
MATH 313	Introduction to Linear Algebra	3
MATH 340	Introduction to Differential Equations	3
MATH 414	Modern Algebra I	3
MATH 421	Higher Geometry	3
MATH 431	Modern Analysis	3
MATH 448	Mathematical Modeling	3
MATH ?	Proposed Capstone Course	1

Students must also enroll in three credit hours of math electives.

Content Analysis:

The curriculum specified in UCCS's Math degree program ensures that students seeking secondary Teaching licensure will have the appropriate knowledge, including

- Knowledge of how to develop number sense and use of numbers and number relationships in problem-solving situations and communicate the reasoning used in solving these problems (Number Theory, Calculus I, II & III, Modern Algebra I)
- Understanding how to use data collection and analysis, statistics, and probability in problem-solving situations and communicate the reasoning used in solving these problems (Modern Analysis, Introduction to Probability and Statistics, Introduction to Differential Equations)

- Understanding how to use algebraic methods to explore, model, and describe patterns and functions involving numbers, shapes, data, and graphs in problem-solving situations and communicate the reasoning used in solving these problems (Modern Algebra I, Introduction to Linear Algebra)
- Understanding how to use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems (Modern Analysis)
- Understanding how to link concepts and procedures as they develop and use computational techniques, including estimation, mental arithmetic, paper-and-pencil, calculators, and computers in problem-solving situations and communicate the reasoning used in solving these problems (Mathematical Modeling)
- Understanding how to use geometric concepts, properties, and relationships in problem-solving situations (Higher Geometry)

UCCS students will have an adequate background in the fundamentals of mathematics.

Conclusions:

The content of UCCS's Mathematics degree program is aligned with the knowledge that a secondary teacher needs to know.

UCCS PHYSICS B.A.
Secondary Education

CURRICULUM	**Credits**
General Education	43
Physics Major	32
Minor/Electives	16
Professional Knowledge	34-35
GRADUATION REQUIREMENTS	**120**

Students who complete a Physics degree at UCCS are required to enroll in 9 Physics core courses (32 credits).

PES 111	General Physics I	4
PES 112	General Physics II	4
PES 115	General Physics Lab I	1
PES 215	General Physics Lab II	1
PES 213	General Physics III	3
PES 313	Modern Physics	3
PES 315	Modern Physics Laboratory	2
PES 481	Senior Physics Seminar	2
PES 105	General Astronomy I	3
Or		
PES 106	General Astronomy II	3

Students are expected to take nine credits hours of upper division Physics electives.

In addition, students are required to enroll in 4 science supporting courses (16 credits). These courses include the following.

MATH 135	Calculus I	4
MATH 136	Calculus II	4
MATH 235	Calculus III	4

Students are required to take 4 credits hours of Geology.

Note: 5-6 of these credits are taken to fulfill General Education requirements.

Content Analysis:

The curriculum specified in UCCS ‘s Physics degree program ensures that students seeking secondary Science Teaching licensure will have the appropriate knowledge, including

- Understanding the processes of scientific investigation and design, conduct, and ability to communicate such investigations (General Physics, Modern Physics)
- Understanding the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space (General Astronomy and Geology supporting class)
- Understanding the common properties, forms, and changes in matter and energy (General Physics, Modern Physics)
- Knowledge of the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment (Not fulfilled by degree requirements)
- Understanding how interrelationships among science, technology, and human activity and how they can affect the world Not fulfilled by degree requirements)
- Understanding that science involves a particular way of knowing and understanding common connections among scientific disciplines (Not fulfilled by degree requirements)

UCCS students will have a solid background in physics. From the teacher preparation perspective, the degree requirements need strengthening by adding classes that explained the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment. In addition, there should be a course offered that demonstrated to students the interrelationships among science, technology, and human activity and how they can affect the world

Conclusions:

The content of UCCS's Physics degree program is aligned with the knowledge that a secondary teacher needs to know.

TOPIC: **TEACHER EDUCATION AUTHORIZATION: UNIVERSITY OF NORTHERN COLORADO**

PREPARED BY: **DIANE LINDNER/SHARON M. SAMSON**

I. SUMMARY

CCHE, in conjunction with Colorado Department of Education, has been reviewing teacher education programs offered by Colorado colleges and universities. The staff has completed approximately half of the site reviews and will be forwarding teacher education program authorizations to the Commission for approval in March, April and June.

The agenda item provides an in-depth look at University of Northern Colorado's teacher education programs and an evaluation of the quality of the program design and capacity to become a performance-based model. UNC not only offers teacher preparation programs on its campus but offers the elementary education program to community college students enrolled at Colorado Northeastern Junior College and Morgan Community College.

The staff recommends approving teacher education authorization for University of Northern Colorado's teacher education programs, including:

LICENSURE LEVEL	DEGREE PROGRAM
Early Childhood Education	Interdisciplinary Studies
Elementary Education	Interdisciplinary Studies
Special Education	Interdisciplinary Studies
Middle Grades Education	English Geography History Social Sciences Mathematics Biology Spanish Chemistry Earth Science Physics
Secondary Education	English French German

	Spanish
	Mathematics
	Biology
	Chemistry
	Earth Sciences
	Physics
	Social Sciences
	History
	Geography
	Speech Communication
	Theatre Arts
K-12 Education	Art
	Music
	Physical Education

*Post-baccalaureate in all of the above areas.

II. BACKGROUND

The on-site visit occurred on October 2-4, 2000. Curriculum materials were read by two individuals from higher education, Janine Rider from Mesa State College and David Whaley from Colorado State University. Both individuals are administrators involved in teacher education. The curriculum reviewers read the material and developed questions and areas needing investigation. The site review team met with the readers to discuss their findings and prepare for the visit. The site review team spent three days on the campus of UNC. UNC has the largest teacher preparation program in Colorado with approximately 600 teacher candidates licensed each year. The review team included:

Carrie Ekey – Literacy Specialist, Jefferson County School District
David Whaley – Teacher Education, CSU
Diana Walcher – Elementary/Special Education Teacher
Carol Wilson – Executive Director, Colorado Partnerships for Educational Renewal
Bill Ottey – Assistant to the Commissioner, CDE
Dorothy Snozek – CCHE
Diane Lindner – CCHE

III. STAFF ANALYSIS

The strengths of the teacher education programs at UNC include:

- A strong undergraduate admission process supported by well-informed admission staff that ensures students have selected an appropriate major for teacher education and have a four-year degree plan.

- An equitable, student-centered advising system.
- Strong curriculum in the Interdisciplinary Studies program for Early Childhood Education (ECE) and Elementary Education (baccalaureate and post-baccalaureate). The K-12 Music program is exemplary in its design. The Secondary and Middle School programs of Biology, Chemistry, Earth Science, Mathematics and Physics are strong. These areas have traditionally been weak for educators and this strength is positive.
- UNC provides quality role models in the K-12 faculty it has selected to supervise field experiences.
- The elementary, early childhood and special education programs have moved aggressively to prepare students to meet the Colorado professional content standards. Professional content standards are integrated throughout the curriculum and assessed during the field experiences.
- There has been outstanding collaboration between the arts and sciences and education faculty and administration resulting in a comprehensive assessment of the teacher education candidate. Within each component of the elementary licensure program of the University of Northern Colorado, the curriculum defines and addresses the assessment of student content mastery. The review team saw and identified exemplary assessment practices by students. The program places the student first.
- The Professional Education Council discusses the assessment design and the assessment results.
- The Center for Urban Education, while new in structure and different in philosophy, has been supported by the administration. As a new teacher education program, the State and UNC are working together to ensure that it aligns with a performance-based program model.
- High student performance at the Center for Urban Education was evident in presentations and written papers. The syllabi clearly delineated precise course and student expectations. The expectations were aligned with the performance standards.
- The Urban Center field experience provides an intense experience exceeding the required statutory minimum of 800 hours. The field experience is the core of the entire program design and meets the frequency criterion.

The analysis of UNC's teacher education programs is described in detail in the Report of the Teacher Education Review Team (Attachment A). It is supported by content analysis of UNC's General Education curriculum and its degree programs that are seeking teacher education authorization.

These documents support the staff recommendation for full approval for the University of Northern Colorado's teacher education programs.

COLORADO COMMISSION ON HIGHER EDUCATION
Report of On-Site Review Team
Teacher Education

UNIVERSITY OF NORTHERN COLORADO

Statutory Performance Measure:

a. Admission System
(Comprehensive admission system that includes screening and counseling for students who are considering becoming teacher candidates.)

General Comments:

(1) The University of Northern Colorado has a general admission, including
   (a) first time freshmen and transfer students participate in Discover UNC, a summer orientation program;
   (b) enrolled students must declare a major by the sophomore year;
   (c) the student's academic advisor assists in the development of the student's academic plan and curriculum selection.

   The College of Education has expanded this process for students who indicate that they plan to become teachers, including:
   (d) identification of general education courses that provide broad contextual knowledge for teaching.
   (e) The teacher education candidate is assigned an advisor in the School of Education.
   (f) prior to registration each semester, the teacher education candidates meet with both advisors. To ensure this meeting, a specific code blocks on-line registration until after the meeting occurs.

(2) UNC has published the admission standards for undergraduate teacher education students in the student handbook. To be admitted into teacher preparation programs, the student must achieve and maintain a 2.75 grade point average, meet the writing proficiency and oral communication proficiency requirements.

(3) UNC has published admission procedures for post baccalaureate teacher education students. PLACE content exams are not required as a condition of admission for post baccalaureate students, nor are students selected from specific degree programs.

- The early childhood and elementary education programs conduct a transcript review to assess if the applicants have the appropriate content knowledge required in these classroom. If this review identifies deficiencies in math, writing and reading, social studies or science, the candidate is advised to enroll in appropriate courses before the student is formally accepted into the degree program.

- The middle school post baccalaureate has no admission criteria.
- The secondary post-baccalaureate admission guidelines are limited. There is no evidence or performance standards to ensure that post-baccalaureate students have comparable content knowledge and experiences to UNC's undergraduate students.

(4) UNC has negotiated a transfer agreement with Aims Community College and specified the lower division courses that will enable students who complete an Associate of Arts degree at Aim to enter UNC with junior standing.

(5) UNC has established a screening process to identify successful teaching candidates.

(6) Each degree program that is seeking teacher education authorization has printed a description of the academic and professional expectations of teacher candidates.

Sources of Evidence:

Admission record review.
Meetings with current and past students
Meetings with admission staff.

Four-year plans and course by course identifications that are used as verification at the end of the process, including a formal sign-off from each college that the baccalaureate student has completed all the course requirements.

Undergraduate students have verified the system is in place, is not confusing and is helpful for successful completion for baccalaureate students.

Middle School, Binder 2, Tabs B and C (submitted in Rejoinder)
Secondary, Binder 1, Tab E, Overarching Program Description, Page 4, II.

Strengths:

The university-wide undergraduate admission process is strong and supported by well-informed admission officers and staff commitment and a plan to assure that all students have selected a major, have been assigned advisors as appropriate, and have a defined academic plan**.**

Weaknesses:

No weaknesses were identified in the elementary education programs
No weaknesses were identified in the early childhood program.
No weaknesses were identified in special education program.

The admission process for post-baccalaureate students seeking middle school and secondary licensure needs definition and implemented performance standards. The

materials documenting the standards must be submitted by September 2002 to maintain teacher education authorization at the post-baccalaureate level in secondary and middle school.

Statutory Performance Measure:

b. Ongoing Screening and Counseling of teacher candidates by practicing teachers or faculty members.

General Comments:

(1) The counseling process includes individual advisement and monitoring of future teacher candidates.

(2) Two advisors; one in the academic major and one in the College of Education advise students.

(3) To facilitate the monitoring of each student's academic progress, the university utilizes two on-line systems, Webster and Helix. Faculty advisors monitor the student's progress regularly and the programmatic requirements that are unmet.

(4) Advising records are kept and maintained in a central program area with specific reference to advice provided and actions taken throughout the student's program. The file includes formal admission letters, transcript analysis, identified deficiencies, student files that are incomplete, and check-off sheets confirming that the candidate has successfully completed graduation requirements.

(5) For post baccalaureate students enrolled in elementary, early childhood and special education programs, the advising system includes special "leveling courses" to address content deficiencies. This advising system is not operational for post-baccalaureate students in the middle school and secondary program.

Sources of Evidence:

Student file review.
Meetings with current and past students.
Meetings with faculty and administrators.
Review of check-off sheets, four-year degree plans, and course identifications, and formal sign-off form.

Middle School, Binder 2, Tab E, page 22
Middle School, Binder 2, Tab B, page 14
Secondary School Initial Binder, Tab R, page 16

Strengths:

Based on the evidence, the advising system for undergraduate students is student-centered. Students are treated equitably and advised so that their academic plans in alignment with standards identified.

UNC's advising system ensures that all students have selected a major, have been assigned advisors, and have a defined academic plan.

Weaknesses:

In the materials, the middle school program reports "leveling courses" are not applicable for their applicants. However, the middle school PLACE content test results for 1999-2000 reveal that four of the five students taking the PLACE social studies content test were not successful. This advising weakness is compounded by the fact that passing the PLACE content exam is not a condition of admission for post-baccalaureate students. To date, there is no published plan in place to address the needs of students who do not pass the PLACE content exam for Middle and Secondary post-baccalaureate programs.

Statutory Performance Measure:

c. Course work and field based training that integrate content knowledge, theory and practice and educates teacher candidates in the methodologies, practices and procedures of teaching standards-based education.

General Comments:

(1) Content Major: The undergraduate curriculum of teacher education is designed so that teacher education candidates can complete their respective programs within four years. Graduation requirements range from 120 hours to 128 hours. All degree programs meet the four-year completion requirement.

(2) Professional Knowledge: UNC's faculty have redesigned the professional knowledge courses to meet the State Board of Education's adopted Performance Standards.
- Current syllabi for the elementary education professional knowledge addressed the performance-based standards with embedded assessments in the course syllabi. The ability to apply theory to practice in the elementary education program was evident in student work samples compiled in the field experience.
- Professional knowledge syllabi for the middle school and secondary school programs are under development. An "Initial Work Sample Plan" is being piloted during the spring semester 2001, adapted from Western Oregon University. Some components of the professional knowledge syllabi are under development, but will be "completed by June or fall 2001."

(3) Integration Across the Curriculum. UNC convenes a Professional Education Council where education and arts and science faculty plan degree requirements, exchange of information, and have an opportunity for continuing dialogue across the academic disciplines.

Sources of Evidence:

Comparison of old and new syllabi in the elementary education and biology, chemistry, physics and theater programs.

Content analysis of each degree program seeking teacher education authorization.

Review of new assessments that are in pilot stage.

Strengths:

Strong curriculum in the following programs:
- Interdisciplinary Studies -- Early Childhood Education (baccalaureate)*
- Interdisciplinary Studies -- Elementary Education (baccalaureate and post-baccalaureate). The quality and rigor of the interdisciplinary content areas is

comparable to the quality and rigor of the elementary education professional knowledge coursework – an exemplary program design.

- Music Education – an exemplary program design
- Biology – Secondary and Middle School
- Chemistry– Secondary and Middle School
- Earth Science– Secondary and Middle School
- Mathematics– Secondary and Middle School
- Physics– Secondary and Middle School

* The early childhood program received authorization from the Colorado Commission on Higher Education on November 2, 2000.

Collaboration among the Colleges of Education, Arts and Sciences, Health and Human Services and Performing and Visual Arts is strong.

Weaknesses:

UNC's general education is acceptable. UNC indicated that it will be reviewing and revising its general education curriculum in 2001-02.

Summary:

The following table provides an overview of the quality of the curriculum by degree program. CCHE reviewed general education and degree program requirements. CDE reviewed the professional knowledge components.

Teacher Education Authorization	Degree Program	General Education	Content of Major	Professional Knowledge
Early Childhood	Interdisciplinary Studies	Acceptable	See Content Analysis	Strong
Special Education	Interdisciplinary Studies	Acceptable	See Content Analysis	Strong
Elementary Education	Interdisciplinary Studies	Acceptable	See Content Analysis	Strong
	Post-baccalaureate	NA	NA – see admission assessment	Strong
Middle School	Biology Chemistry Earth Science English Geography History Social Science Spanish Mathematics Physics	Acceptable	See Content Analysis	Syllabi for professional knowledge courses includes the teacher work sample to assess teacher candidate mastery of knowledge and skills. Some professional

	Post-Baccalaureate	NA	NA – see admission assessment	knowledge courses are under development "to be completed by June 2001." However, CDE has recommended these for approval.
Secondary	Biology Chemistry Earth Science English French Geography German History Social Science Spanish Mathematics Physics Speech Communications Theatre Arts	Acceptable	See Content Analysis	Course revisions include the new teacher work samples to assess teacher candidate mastery of knowledge and skills. A limited number of professional knowledge courses are under development "to be completed by June 2001." However, CDE has recommended these for approval.
	Post-baccalaureate	NA	NA – see admission assessment	
K-12: Art	Art	Acceptable	See Content Analysis	Acceptable
K-12: Music	Music Education		See Content Analysis	Acceptable
K-12 Physical Ed.	Kinesiology		See Content Analysis	Acceptable

Statutory Performance Measure:

d. Each candidate completes a minimum of 800 hours of field experience that relates to predetermined learning standards.

General Comments:

(1) The field experience requirements define the frequency, scope and intensity of the activities.

(2) Students began their field experience early in their degree program.

(3) In the elementary licensure area, hours were clearly defined, predetermined learning standards were identified, and expectations for faculty assessment, guidance and feedback were stated. The elementary education program includes 21 weeks of field experience and two semesters of student teaching. Students are prepared in the college classroom prior to entering the K-12 classroom**.** During the field experience, elementary education students have the opportunity to deliver instruction, adapt content knowledge to standards, utilize and develop assessment tools, diagnose difficulties, speak with parents regarding student progress and adapt instruction to respond to student needs.

(4) In the middle school field experience, field experience hours were clear and easily determined. The involvement of content area faculty in student teaching was impressive with on-site evaluation.

(5) In the secondary field experience, a partnership exists between university faculty and K-12 teachers to facilitate the development of secondary teacher candidates' teaching skills. An on-site coordinator at the professional development school facilitates student experiences and coordinates special seminars to enhance student knowledge and skills.

(6) UNC exceeds the minimum 800 required field experience hours.

(7) On site visits to K-12 partner schools verified active participation by UNC faculty.

(8) Revised Teacher Work Samples currently being piloted in the middle, secondary and K-12 programs will ensure the proficiency level of some performance-based measures prior to student teaching.

Sources of Evidence:

Visits to the professional development schools.

Strengths:

Observation and discussions with K-12 faculty and administrators documented that positive role models are present for students during the field experiences. UNC has identified the K-12 faculty within each school that meet criteria for quality teaching.

Weaknesses:

The revisions to the student teaching handbook defining the new performance-based standards and their impact on field experiences and student teaching would significantly improve the field experience for students and K–12 school personnel. Currently, only the elementary education program has an operating revised student teaching handbook with the performance-based standards and related field experience.

Interviews with K-12 personnel indicate that classroom teachers with grades 7 –12 indicate that they are not generally included in the assessment of program's quality and discussions of needed changes. As UNC moves to a performance-based model, the program evaluation will need to be expanded.

Teacher Education Authorization	Level of Field Experience	Frequency	Scope	Intensity
Elementary/Early Childhood	Freshmen	0 Hours		
	Sophomore	42 Hours	Tutoring two elementary age students twice a week in a low SEC and culturally and linguistically diverse elementary school	A mentor teacher supervises this service-learning component at this early level. The Elementary PTEP faculty at UNC evaluate the student performance through written work related to course objectives and observations
	Junior (Second Semester)	400 Hours (10 weeks) Student Teaching I	Supervised continuous field experiences in an assigned partnership school	After six weeks of focused content learning on campus, student begins individual, small group instruction and continuously assumes responsibility for total group/class instruction. UNC PTEP elementary education faculty supervise on-site. K-12 faculty model teaching, observe and assess teacher candidates lessons as per performance based standards and model content standards in literacy, science and health. Assessment is continuous with feedback from teamed K-12 and UNC elementary faculty on-site.

	Senior (Second Semester)	440 Hours : Student Teaching II	Supervised Direct Experience	The student builds on the Student Teaching I experience by continuing to plan standards-based lessons, interpret and analyze individual and group assessment data, adapts content knowledge to content standards in daily lessons, and has direct responsibility for the total classroom. Supervision occurs regularly from the K-12 faculty and UNC faculty to provide assistance and evaluation to the teacher candidate with the intent to achieve proficiency.
Total (Elementary/Early Childhood)		882 Hours		Technology is integrated within the classroom setting to enhance student learning in each of the student teaching experiences I and II.
Middle School, Secondary and K-12	Freshmen	42 Hours	Early Field Hours and Service Hours	UNC faculty from the education, arts and sciences, performing and visual arts and teachers from seven of the local schools work together are partnered together in the delivery of all field experiences. In this initial involvement tutoring and observation begin the process. Seminars provided on-site by university/k-12 team.
	Sophomore	42 Hours	Observation, Tutoring	Involvement as directed with direct observation and assessment by the university and K-12 team with an on-site faculty member. Students provide individual and small group instruction with observation and assistance by university and K-12 faculty. Seminars provided on-site by university/k-12 team.
	Junior	90 Hours	Developing lessons, direct Experience	Individual instruction, group lessons. University/faculty/team is available on-site, observation and supervision occurs with univ/K-12 team are in the K-12 classroom Seminars are provided on-site by univ/K-12 team.

	Senior	640 Hours	Student Teaching	The student plans standards-based lessons, interprets and analyzes longitudinal assessment data and has direct responsibility for a classroom of children. The student meets with parents and is directly responsible for student progress. Content faculty are present on a weekly basis in the K-12 classroom to provide assistance and evaluation to the students. Seminars are provided on-site by univ/K-12 team. UNC continues the partner model with an on-site team member during the experience. Technology is integrated throughout the process.
Total		814 Hours		

Statutory Performance Measure:

e. Demonstrate the skills required for licensure as specified by the State Board of Education.

General Comments:

(1) This measure is evaluated by the State Board of Education. The State Board has reviewed the evidence and forwarded a positive recommendation regarding the program design and its ability to develop the appropriate skills needed for teaching in the Colorado classroom. The site review team assisted in this assessment.

(2) The findings of the site review team indicated that the curriculum provides sufficient preparation in the professional content standards, including:

(1) LITERACY - The literacy component of the elementary program is outstanding. Students demonstrate knowledge of literacy model content standards, accomplishments of children in grades one through six, and the application of strategies, methodologies and "best practices." UNC has strong faculty that are leaders in literacy, including Dr. Michael Opitz, who is recognized for his work in all levels of the literacy model content standards**.** The literacy skills is interwoven throughout the elementary education program and resulted from a collaborative faculty effort. Students progress from the basic to developing and culminating to proficiency level in literacy performance during student teaching. Students have had the opportunity to deliver instruction, adapt content knowledge to standards, utilize and develop assessment tools, diagnose difficulties, speak with parents regarding student progress and change instruction to meet students' literacy needs.

With its strength in literacy, UNC is encouraged to require the language acquisition course, which is currently only an option within the interdisciplinary major to strengthen reading literacy skills.

The language and literacy course required for students seeking middle and secondary licensure meets the professional knowledge standard for these levels. Literacy skill is a new licensure requirement. After consultation with the site review team, UNC has developed a "new" course that aligns with SBE standards.

(3) **MATHEMATICS AND MATH LITERACY –** The interdisciplinary studies degree program for elementary teachers, special education and early childhood ensures training in mathematics for teacher candidates. UNC has addressed mathematics in the content areas, selecting courses that enhance the content knowledge in the degree program.

(3) **CONTENT STANDARDS AND ASSESSMENT** – The professional knowledge courses provide appropriate instruction and activities that prepare students to plan instruction to facilitate students' mastery of content standards and develop

assessments that measure students' proficiency on a standard. The middle school and secondary programs are developing assessments in tandem with the course syllabi development. Visits to college and K-12 classrooms indicated that students in the field have a strong understanding of content standards and assessment.

(4) **CONTENT –** The professional knowledge courses are aligned with the skills needed by classroom teachers.

(5) **CLASSROOM AND INSTRUCTIONAL MANAGEMENT –** Discussions with students and K-12 administrators indicated that field experience and faculty guidance in the field assisted students in building these skills.

(6) **INDIVIDUALIZED INSTRUCTION –** The knowledge and application of the assessment components within elementary education licensure supports the individualization of instruction. Secondary and middle school programs have included additional components to assist in aligning with the performance-based standards.

(7) **TECHNOLOGY** – Technology is presently addressed through two one-credit courses. Students have raised issues regarding the excessive workloads required in these one-credit courses. In the elementary education program there is evidence of infusion within the course by faculty within the college classroom and expectations of students in course assignments to integrate technology. If technology were infused more comprehensively throughout the middle and secondary education coursework, the workload could be lessened in the technology courses and application would be evident for students. Also, with the infusion of technology throughout programmatic areas, a more focused approach would occur for integrating and applying technology with relevant content.

Introduction of technology proficiency assessment may allow students to "test out" of the skill development course or allow a student to enroll in a more challenging technology courses. UNC has a grant that is exploring this direction.

(8) **EDUCATIONAL GOVERNANCE** – UNC's professional development school includes many K-12 school faculty into the instruction and discussion of this topic, thereby providing a total school environment perspective.

Sources of Evidence:

Verification of the aforementioned areas of strength and breadth of understanding of the curriculum to successfully teach in the Colorado standards based classroom was determined by the review of student materials, syllabi, individual meetings with current and past students, faculty and the K-12 classroom teachers and administrators. As indicated above, considerable review occurred to verify each of the above.

Strengths:

Evident throughout the review of plans, portfolios and meetings with classroom teachers and administrators, the University of Northern Colorado has been working toward the preparation of students to meet the Colorado professional content standards. The elementary and early childhood education licensure components have successfully addressed each of those components. Special Education professional knowledge is exceptionally strong. The elementary and early childhood teacher education programs have completed the assessment inventory.

Weaknesses:

UNC is finalizing its Inventory of Standards Assessment that includes a record of the demonstrations of proficiency for each K-12 content standard that applies. Completion of this inventory for middle school, secondary and K-12 is anticipated for June 2001.

A review of the coursework prior to student teaching defines school law preparation that pertains to the classroom. This material needs to be reinforced during the field experience.

Statutory Performance Measure:

f. Comprehensive assessment of candidate's knowledge of subject matter.

General Comments:

(1) The team examined the assessment of subject matter in three settings – general education, content knowledge of the teacher candidate demonstrated in the college classroom, and the ability to apply the knowledge in the K-12 classroom. The supporting material documents work in progress that addresses the performance-based standards for Colorado teachers. While the assessments themselves are under construction, UNC Trustees have adopted a university-wide assessment plan.

(2) The assessment design includes:

- A sophomore exam, ETS Academic Profile, to measure the general education knowledge of UNC students
- PLACE examination of content knowledge
- Embedded assessments in Elementary Ed, Early Childhood, Special Ed, Middle School, Secondary, Music Ed, Art Ed, and Physical Ed on teaching skills and professional knowledge and all areas of the sciences
- A student work sample approach that spans the entire program from admission to completion shows potential for evaluating value-added
- Student teaching and field experience evaluation

Sources of Evidence:

Assessment plan.
Review of assessment materials
Faculty interviews.
Meetings with current and past students.
Meetings with university faculty.
Rejoinder, Binder 1, Tab E

Strengths:

(1) Collaboration between the arts and sciences and education faculty and administration has resulted in a comprehensive assessment of the teacher education candidate.
(2) Within each component of the elementary licensure program of the University of Northern Colorado, the curriculum defines and addresses the assessment of student content mastery. The review team saw and identified exemplary assessment practices by students. The program was designed holistically and places the student first.
(3) The Professional Education Council discusses the assessment design and the assessment results.

(4) The K–12 faculty and administration are supportive of and demonstrate a continued desire to provide quality and meaningful experiences for the teacher education candidates of the University of Northern Colorado. They take great pride in maintaining the integrity of their profession.

Weaknesses:

None

Summary:

The following chart provides an overview of the assessment components of UNC's teacher education programs.

Teacher Education Authorization	Degree Program	Content Knowledge	General Education Knowledge	Professional Knowledge
Early Childhood/ Elementary/Special Education	Interdisciplinary Studies	PLACE exam And course assessments	ETS Academic Performance Profile	UNC utilizes the following assessments to evaluate students' mastery of teaching skills and knowledge: work samples, field experience and student teaching assessments. On-site field experience assessments are completed by UNC on-site and classroom cooperating teachers with immediate feedback and team efforts to proficiency. Assessment of performance-based measures is consistent and frequent. Periodic formal assessments occur to benchmark student progress with defined guidelines for improvement
Middle School/ Secondary	Biology Chemistry Earth Sciences English French Geography German History Mathematics Physics Social Science Spanish Speech Comm. Theater Arts			
Post-Baccalaureate	All licensure areas	PLACE and transcript review	None	
K-12: Art	Visual Arts	PLACE exam And course assessments	ETS Academic Performance Profile	
K-12Physical Education	Kinesiology			

K-12: Music	Music/Instrumental Music/Vocal			if needed. Evaluation reports are completed for each student teacher in both student teaching blocks based upon faculty observations and the input of the cooperating teacher. Middle School, Secondary and K-12 are continuing to develop assessments.

COLORADO COMMISSION ON HIGHER EDUCATION
Report of On-Site Review Team
Teacher Education
UNIVERSITY OF NORTHERN COLORADO
Center for Urban Education

General Comments:

The Center for Urban Education is a new initiative that provides opportunities for existing paraprofessionals in Denver Public Schools to earn a UNC degree in Interdisciplinary Studies and become licensed as an Elementary Education teacher.

The site team recognizes that this program is in the early implementation stages. Consequently, the review team modified the scope of evaluation and used the following assumptions in applying the criteria:

- The Center for Urban Education may employ different strategies to achieve its educational goals.
- The quality of the Elementary Ed degree offered at the Center for Urban Education will be the same as those adopted in the traditional Elementary Education program.
- The program offered at the Center for Urban Education will be student-centered - meaning that it is planned so that students can make reasonable progress toward the degree.

The review team commends the spirit and innovation of the University of Northern Colorado. The Center for Urban Education, while new in structure and different in philosophy, has been supported by the administration. As a new teacher education program, the State and UNC share a mutual responsibility to ensure that it aligns with a performance based program model.

At this time, the site review team is recommending a one-year provisional authorization for the Elementary Education program at the Center for Urban Education, conditional upon receipt of the criteria for selecting master teachers and a list of the master teachers that are currently assigned to the student cohort. The review team further recommends that CCHE conduct annual site visits until the program is fully implemented and track the performance of students enrolled in this program separate from the traditional Elementary Education program.

Teacher Education Performance Criterion #1

a) Admission System
(Comprehensive admission system that includes screening and counseling for students who are considering becoming teacher candidates.)

The Center for Urban Studies adopted UNC's admission practices for students entering the Urban Center program. Students are admitted from a variety of academic and experiential backgrounds.

The students enrolled at the Center for Urban Studies are subject to the same general admission standards as any other student admitted to UNC.

The admission criteria for the Teacher Education program include grade point minimum of 2.75 to be maintained throughout the program, writing proficiency and oral proficiency requirements.

The Center for Urban Studies has published the admission requirements in a student handbook for the elementary licensure area. The handbook states that all admission and screening processes follow the processes identified on the main campus.

A negotiated transfer agreement is on file that allows students who had completed college level work prior to admission into the teacher education program to transfer credits into this program. It is the same transfer agreement operating at UNC.

The Center for Urban Studies admitted a cohort of 45 students into the Elementary Education program. This provides a critical mass of students to deliver a quality teacher education preparation program. Because the program is newly implemented the first time admission performance data will be available is fall 2001. The team recommends reviewing the admission performance criterion next fall including identification of remedial needs of the students enrolled in this program.

Teacher Education Performance Criterion #2:

b) Counseling and Screening of Candidates
Ongoing Screening and Counseling of teacher candidates by practicing teachers or faculty members.

The counseling plan includes individual advisement and monitoring of the future teacher candidates throughout the process.

The review team was unable to assess if this plan is in practice since this is the first semester of the program's operation.

Sources:

Counseling plan
Interviews

Weakness:

Upon admission to the Center for Urban Education, the student may schedule an appointment with a center advisor. No designated advisor is provided as on the UNC campus. Although students progress through the program as a cohort, it does not alleviate the need for an advisor. Prior to the 2001 site visit, the Urban Ed program should rectify the advisor situation.

Recommendation:

The review team recommends that this criterion be re-evaluated at the next site visit and strongly advises the Urban Center to rectify the advisor situation.

Teacher Education Performance Criterion #3

c) Course work and field based training that integrates theory and practice (i.e. early field experience) and educates teacher candidates in the methodologies, practices and procedures of teaching standards-based education.

The Center for Urban Studies offers UNC's Interdisciplinary Studies program as the degree program and the Elementary Education professional knowledge courses. Students are required to take the same interdisciplinary major and complete the same licensure requirements. The intent of this curriculum design is to focus the attention of the student and maximize the integration between student learning and application. The configuration and delivery of the Urban Studies program, however, differs in four significant ways:

- The coursework is taught from August to the first week of June.
- The coursework in the interdisciplinary major is divided into concentrated blocks of content study in one area at a time.
- The UNC integrated methods are taught across the four years in one credit hour courses that correspond with the concentrated content blocks being studied.
- The early student teaching experience is extended over a three and one-half year period where students are involved in apprenticeships in urban schools. A culminating experience occurs during the final semester of the senior year.

Sources of evidence:

Observation of a class taught at the Denver site by a UNC English faculty member

Strengths:

The student performance was evident in presentations and written papers. The syllabi clearly delineated precise course and student expectations. The expectations were aligned with the literacy performance standards.

Deficiency/Limitation:

During the site visit, the review team requested the selection criteria for mentors and the list of master teachers participating in the program. This information needs to be on file before the team can recommend authorization.

To tie theory to practice, the program relies on the interaction between mentors and students. The site visit did not involve mentors; it was not possible to evaluate this component. Since the mentors are a significant resource to ensure student success, the next site visit should include opportunities to meet the mentors, discuss the practices used to assist students model good practices, and ways mentors are providing constructive feedback to students.

Teacher Education Performance Criterion #4

d) Each candidate completes a minimum of 800 hours of field experience that relates to predetermined standards.

Field Experience is measured by its scope, frequency, and intensity.

Strengths:

The field experience provides an intense experience exceeding the required statutory minimum of 800 hours. The field experience is the core of the entire program design. It meets the frequency criterion.

Deficiencies/Limitations:

The curriculum design needs to clarify the scope and intensity of the field learning experiences and differentiate the role of the candidate as a paid paraprofessional and as the student. This criterion will be revisited as the program progresses in its initial year.

The scope and related expectations are tied to assessment of the field experience. According to the submitted material, "student teachers are provided strong role models in the professional development schools to which they are assigned." The document states that "carefully recruited, retired master urban teachers serve as mentors to the apprentices." The document did not describe the criteria used to recruit and select the master teachers, i.e., how often do they observe the students and how do they guide the apprentices. No evidence has been provided during the site visit regarding the criteria.

Currently no contractual agreements and guidelines are in existence. Without signed contractual agreements and guidelines for all involved, program operation and student success could be jeopardized.

The role of the master teacher in providing "continuous feedback and support" also determines how the master teacher will collaborate with college faculty in professional school setting. This is still in development.

Recommendation:

The Urban Center needs to provide the criteria for selecting master teachers and a list of the master teachers that are currently assigned to the student cohort prior to CCHE authorization of the program.

The Urban Center needs to define the role of the master teacher prior to next year's site visit as well as clarifying the scope and intensity of the field learning experiences and differentiating the role of the candidate as a paid paraprofessional and as the student. The field experience criterion will be revisited in 2001-02 with the review of the aforementioned contractual agreements and guidelines.

Teacher Education Performance Criterion #5

e.) Demonstrate the skills required for licensure as specified by the State Board.

The program design identifies the appropriate knowledge, experiential and assessment components to meet statutory requirements as well as State Board of Education skills.

Program planning describes the integration of theory and field experience from the initial semester through program completion. Indicated within the program matrix are the competencies on each of the standards and standard elements from the performance based standards for Colorado teachers and identified opportunities for teacher candidates to acquire knowledge and skills at the introductory, practiced and proficiency levels. Also defined in a separate matrix is the delineation of the criteria outlined in the 8.02 standards for middle childhood education. Student population identified, admitted and registered within this alternative approach to the professional development of elementary school teachers began the initial semester in August 2000. Currently, they are paraprofessionals hired within specific schools in the metro Denver area. Given their status and the new program status, it would be beneficial to revisit the site and the students in the second semester.

The assessment materials indicate that the on-campus assessment measures, protocols, and rubrics will be used, including student work samples I and II to determine if the student has mastered the skills required for licensure. What is less clear is how these assessments will be scheduled since the Urban Education Center program's sequence varies from the traditional Elementary Education program.

Recommendations:

None

Teacher Education Performance Criterion #6

f.) Comprehensive assessment of candidate's knowledge of subject matter.

Sources of Evidence:

None.

Weaknesses:

While the program is in early implementation, it is critical in a performance-based model that assessment is addressed in the program design. The traditional assessment practices may not be appropriate for this highly experiential program, particularly since the students in this program may not follow the same curriculum sequence of the traditional UNC program.

The Urban Center program in collaboration with UNC needs to develop a working plan to ensure that teacher candidate students are positioned for success, focusing on how students demonstrate mastery of subject matter and ability to apply it in the classroom.

Deficiencies:

Lacks assessment plan for the mastery of liberal arts knowledge.

Recommendation:

The site visit in year 2 will review the differences and commonalties of the proposed assessment measures. It is particularly important to decide what and how student learning is measured since the teacher education candidate is in the classroom setting daily.

The second year review will also evaluate the mastery of skills that the students in this program demonstrate at the end of the freshmen year.

UNC ART B.A.

CURRICULUM	Credits
General Education	40
Art Major	41
Minor/Electives	3
Professional Knowledge	36
GRADUATION REQUIREMENTS	**120**

Students who complete an Art degree at UNC are required to enroll in 14 core art classes (44 credits). Six general education credits can partially satisfy the art history requirements. Art I may be satisfied by three general education arts and letters credits.

ART 181	History of Art I	4
ART 182	History of Art II	4
ART 183	Art I	3
ART 184	Art II	3
ART 171	Computer Based Technology	2
ART 221	Introduction to Fiber Arts	3
ART 231	Painting I	3
ART 241	Basic Crafts Design	3
ART 252	Printmaking	3
ART 261	Sculpture	3
ART 265	Jewelry	3
ART 271	Basic Photography	3

Select Ceramics (ART 211 or 212)	3
Select Drawing (ART 234 or ART 333)	3

Select six credits of upper division courses in one of the following concentrations

- Art History
- Ceramics
- Drawing
- Fiber Arts
- Graphic Design
- Painting
- Photography
- Printmaking
- Sculpture

In addition, students preparing to become teachers must enroll in supporting classes (3 credits).

SPCO 100	Basics of Public Speaking	1
SPCO 103	Speaking Evaluation	2

Content Analysis:

The curriculum requirements specified in the Art degree program ensures that students are familiar with the disciplines and ideas in art, including:

- Understanding how to recognize and use the visual arts as a form of communication (Drawing, Painting, and Computer Based Technology)
- Knowledge of how to apply elements of art, principles of design, and sensory and expressive features of visual arts (Art I & II)
- Knowledge of how to apply visual arts materials, tools, techniques, and processes (Painting, Printmaking, Photography, Sculpture, Jewelry, Ceramics, Fiber Arts)
- Knowledge of how the visual arts relate to various historical and cultural traditions (Art History I & II)
- Understanding how to analyze and evaluate the characteristics, merits, and meaning of works of art (art studio courses)

UNC's Art program provides a strong experience in three-dimensional design and more limited experiences in two-dimensional art forms. The *Introduction to Basic Crafts* is a course that is more appropriate for recreational leaders rather than art students or art teachers. Replacing this course with graphic arts or a second drawing class would strengthen the art teacher preparation.

Conclusion:

UNC's Art degree program provides a prospective teacher with appropriate art experiences that can apply to all grade levels (K-12).

UNC MUSIC B.M.E.

CURRICULUM	**Credits**
General Education	40
Music Major	46
Supporting Required courses	3
Professional Knowledge	39
GRADUATION REQUIREMENTS	**128**

Students who complete a Music degree at are required to enroll in seven core classes. (41 credits). The history courses satisfy 6 credits of general education.

MUS 100	Music Recitals, Concerts, and Productions	0
MUS 101	Sight Singing and Theory	4
MUS 102	Sight Singing and Theory II	4
MUS 201	Advanced Sight Singing and Theory I	3
MUS 202	Advanced Sight Singing and Theory II	3
MUS 243	History of Music I	3
MUS 244	History of Music II	3
MUS 498	Individual Student Performance	14
MUS 499	Major Music Organization	7

Students select a Vocal or Instrumental Emphasis totaling credits 11

Instrumental Emphasis

MUS 319	Instrumental Techniques	1
MUS 320	Wind Literature and Conducting	2
MUS 330	String Techniques	2
MUS 360	Voice	1
MUS 361	Clarinet & Saxophone	1
MUS 362	Double Reed & Flute	1
MUS 364	Brass & Percussion	2
MUS 243/244	Marching Band	1

Vocal Emphasis

MUS 314	Guitar Accompaniment	1
MUS 323	Choral Techniques and Accompaniment	2
MUS 330	String Techniques	1
MUS 359	Woodwind Techniques	1
MUS 367	Materials & Techn. For Brass & Percussion	1
MUS 410	Vocal Pedagogy	2
MUS 469	Individual Performance in Voice	4

Content Analysis:

The curriculum requirements specified in UNC's Music degree program ensures that students develop music competencies, including:

- Understanding how to sing or play instruments and knowledge of a varied repertoire of music, alone (Individual Performance) or with others (Major Music Organization)
- Knowledge of how to read and notate music (Sight Singing & Theory I & II, Advanced Sight Singing & Theory II)
- Understanding how to create music (various technique and conducting classes)
- Knowledge of how to listen to, analyze, evaluate, and describe music (Music Recitals, Concerts, & Performances – all UNC Music majors are required to attend a weekly recital and 12 major concerts each semester and evaluate the performance)
- Knowledge of how to relate music to various historical and cultural traditions (History of Music I & II)

The statute requires that all undergraduate teacher preparation programs are designed so that the students may graduate in four years. Because of accreditation requirements, Special Education and Music programs may exceed this limit. UNC's program is designed to meet the statutory four-year requirement with 128 graduation credits and accreditation requirements.

Conclusion:

UNC's Music B.M.E. program provides an exceptionally strong learning experience for students pursuing K-12 Music licensure. Students pursuing the Instrumental emphasis enroll in four vocal training classes. Students pursuing vocal emphasis enroll in four instrumental technique classes.

UNC MATHEMATICS, B.A.

Middle School Teacher Education Emphasis

CURRICULUM	**Credits**
General Education	40
Math Major	43
Minor/Electives	0
Professional Knowledge	39
GRADUATION REQUIREMENTS	**122**

Students who complete the Math degree at UNC are required to enroll in 15 Math core courses. (43 credits). The following are required courses

MATH 131	Calculus and Analytic Geometry I	4
MATH 132	Calculus and Analytic Geometry II	4
MATH 181	Fundamentals of Mathematics I	3
MATH 182	Fundamentals of Mathematics II	3
MATH 221	Elementary Linear Algebra	3
MATH 228	Discrete Mathematics	3
MATH 283	Informal Geometry	2
MATH 341	Introduction to Modern Geometry	4
MATH 391	Introduction to Number Theory	2
MATH 395	Topics in Mathematics for Teachers	3
MATH 464	Introduction to History of Mathematics	3
MED 487	Technology, Manipulatives and NCTM Standards	3
STAT 150	Introduction to Statistical Analysis	3

Students also select one of the following courses:

CG 110	BASIC Programming (3)
CG 120	Pascal Programming (3)
CG 125	LOGO Programming (3)

Content Analysis:

UNC's Mathematics degree program, middle school emphasis, provides students with knowledge in the following areas, including:

- Knowledge of how to develop number sense and use of numbers and number relationships in problem-solving situations and communicate the reasoning used in solving these problems (Fundamentals of Mathematics I, Fundamental of Mathematics II, Introduction to Number Theory, Topics in Mathematics for Teachers).
- Understanding how to use data collection and analysis, statistics, and probability in problem-solving situations and communicate the reasoning used in solving these problems (Calculus and Analytic Geometry, Introduction to Statistical Analysis)

- Understanding how to use algebraic methods to explore, model, and describe patterns and functions involving numbers, shapes, data, and graphs in problem-solving situations and communicate the reasoning used in solving these problems (Elementary Linear Algebra)
- Knowledge of how to use geometric concepts, properties, and relationships in problem-solving situations and communicate the reasoning used in solving these problems (Calculus and Analytic Geometry, Introduction to Modern Geometry, Informal Geometry)
- Understanding how to use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems (Introduction to Statistical Analysis, Technology, Manipulatives and NCTM Standards)
- Understanding how to link concepts and procedures as they develop and use computational techniques, including estimation, mental arithmetic, paper-and-pencil, calculators, and computers in problem-solving situations and communicate the reasoning used in solving these problems (Calculus and Analytic Geometry, Introduction to Statistical Analysis, BASIC Programming, Pascal Programming, LOGO Programming)

UNC students who complete this emphasis will have a strong grounding in geometry and number theory.

Conclusions:

UNC's Mathematics degree program provides students seeking middle school licensure with the appropriate content knowledge.

UNC BIOLOGY, B.A.

CURRICULUM	Credits
General Education	40
Biology Major	53
Professional Knowledge	38
GRADUATION REQUIREMENTS	**131**

Students who complete a Biology degree at UNC are required to enroll in 10 biology classes. (34 credits)

BIO 110	Principles of Biology	4
BIO 111	Survey of Organismal Biology	5
BIO 220	Genetics	4
BIO 351	Microbiology	4
BIO 371	Teaching Strategies for Biology Teachers	1
BIO 460	Ecology	4
BIO 465	Evolution	3
BIO 491	Senior Seminar	1
BOT 350	General Plant Physiology	4
ZOO 245	Introduction to Human Anatomy Physiology	4

In addition, students must enroll in at least six supporting science courses (26 credits). Seven credits can be satisfied within the Math and Science general education requirements.

Chemistry Credits

CHEM 111 Principles of Chemistry I	5
CHEM 131 Introductory Organic Chemistry	4

Physics Credits

PHYS 220 Introductory Physics I	5
PHYS 221 Introductory Physics II	5

Mathematics

STAT 150 Introduction to Statistical Analysis	3

Earth Science Credits

GEOL 100 General Geology	4

Content Analysis:

The curriculum requirements specified in UNC's Biology degree program ensures that students are familiar with the disciplines and ideas in biology, including

- Understanding the processes of scientific investigation and design, conduct, communication about, and skills to evaluate such investigations (Principles of Biology, Genetics, Microbiology)
- Knowledge of the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment (Survey of Organismal Biology, Genetics, Ecology, Evolution, General Plant Physiology, Introduction to Human Anatomy Physiology)
- Knowledge of the common properties, forms, and changes in matter and energy (Introductory Physics, Advanced Physics)
- Understanding the processes and interactions of Earth's systems and structure (General Geology)
- Understanding how interrelationships among science, technology, and human activity and how they can affect the world (not explicit in the content described in course syllabi)
- Understanding that science involves a particular way of knowing and understanding common connections among scientific disciplines (Physics, Earth Science, Chemistry, and Principles of Biology)

Conclusions:

UNC's Biology degree program provides students seeking secondary and middle school science licensure with the appropriate content knowledge.

UNC CHEMISTRY, B.A.

CURRICULUM	Credits
General Education	40
Chemistry Major	40
Professional Knowledge	38
Electives	2
GRADUATION REQUIREMENTS	**120**

Students who complete Chemistry degree at UNC are required to enroll in 8 Chemistry core courses. (32 credits)

Students may select one of the following:

CHEM 111	Principles of Chemistry I	5
CHEM 112	Principles of Chemistry II	5
Or		
CHEM 114	General Chemistry I	4
CHEM 115	General Chemistry II	4

And complete the following courses:

CHEM 321	Chemical Analysis	4
CHEM 331	Organic Chemistry I	5
CHEM 332	Organic Chemistry II	5
CHEM 441	Inorganic Chemistry I	2
CHED 495	Seminar in Teaching Chemistry	2
CHEM 360	Environmental Chemistry	2
CHEM 450	Survey of Physical Chemistry	4

In addition, students are required to enroll in six science supporting courses (13 credits). Seven credits may be satisfied in the general education requirements.

Biology

BIO 110	Principles of Biology	4
BIO 111	Survey of Organismal Biology	5

Earth Sciences

GEOL 201	Physical Geology	4

Physics

PHYS 220	Introductory Physics I	5
PHYS 221	Introductory Physics II	5

Content Analysis:

The curriculum specified in the Chemistry degree program ensures that students seeking secondary Science Teaching licensure will have the appropriate knowledge, including:

- Understanding the processes of scientific investigation and design, conduct, and ability to communicate such investigations (Principles of Chemistry, Chemical Analysis)
- Knowledge of the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment (Organic Chemistry, Environmental Chemistry)
- Understanding the processes and interactions of Earth's systems (Environmental Chemistry, Physical Geology)
- Understanding the common properties, forms, and changes in matter and energy (Introductory to Physics)

Conclusions:

UNC's Chemistry degree program provides students pursuing middle and secondary science licensure with the breadth of science and the depth of chemistry content knowledge.

UNC EARTH SCIENCE, B.A.

CURRICULUM	Credits
General Education	40
Earth Science Major	57
Professional Knowledge	38
GRADUATION REQUIREMENTS	**135**

Students who complete the Earth Science degree at UNC are required to enroll in 9 science core courses. (32 credits)

AST 301	Classical Astronomy	3
AST 302	Modern Astronomy	3
GEOL 201	Physical Geology	4
GEOL 202	Historical Geology	4
GEOL 390	Colorado Geology	3
MET 205	General Meteorology	4
MET 421	Climatology	3
OCN 301	Physical and Chemical Oceanography	4
OCN 302	Geological and Biological Oceanography	4

In addition, students are required to enroll in 7 science supporting courses (32 credits). Seven credits may be satisfied with general education courses. following.

BIO 110	Principles of Biology	4
BIO 111	Survey of Organismal Biology	4
CHEM 111	Principles of Chemistry I	5
CHEM 112	Principles of Chemistry II	5
MATH 124	College Algebra	4
PHYS 220	Introductory Physics I	5
PHYS 221	Introductory Physics II	5

Content Analysis:

The curriculum specified in the Earth Science degree program ensures that students seeking secondary Science Teaching licensure will have the appropriate knowledge, including:

- Understanding the processes of scientific investigation and design, conduct, and ability to communicate such investigations (Principles of Biology, Principles of Chemistry)
- Knowledge of the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment (Principles of Biology, Survey of Organismal Biology)

- Understanding the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space (Classical Astronomy, Modern Astronomy, Physical Geology, Colorado Geology, Historical Geology)
- Understanding the common properties, forms, and changes in matter and energy (Introductory Physics)

UNC students will receive an adequate background in the basics of Geology, Astronomy, Chemistry, Physics, and Biology.

Conclusions:

UNC's Earth Science degree program provides students seeking middle school and secondary science licensure with the appropriate content knowledge.

UNC ENGLISH B.A.

CURRICULUM	Credits
General Education	40
English Major	42
Professional Knowledge	38
GRADUATION REQUIREMENTS	**120**

Students who complete an English degree at UNC are required to enroll in 12 English core courses. (36 credits)

ENG 131	Introduction to Literature	3
ENG 211	Survey of American Literature	3
ENG 213	Survey of British Literature	3
ENG 214	British Literature II	3
ENG 245	Critical Approaches to Literature	3
ENG 311	Shakespeare	3
ENG 318	Traditional and Modern Grammars	3
ENG 419	Language and the History of English	3
ENG 497	Senior Seminar	3

Select one of the following two courses:

ENG 303	The Essay	3
ENG 319	Advanced Expository Techniques	3

Select at least two courses that cover all three categories.

Women's Literature

AFS 230	Black Women in Literature	3
ENG 239	Topics in Women's Literature	3
ENG 335	World Literature By and About Women	3

Postcolonial or World Literature

ENG 235	World in Literature	3
ENG 238	Introduction to Folklore	3
ENG 262	Masterpieces of World Literature	3
ENG 335	World Literature by and About Women	3
ENG 414	Greek and Comparative Mythology	3
ENG 430	Advanced Studies in World Literature	3

Ethnic Americas Literature

HISP 111	Introduction to Hispanic Literature	3
ENG 236	Ethnic American Literature	3
AFS 305	Survey of African American Literature	3
ENG 336	European Immigrant Literature	3
ENG 436	Major Ethnic Writers	3

Students must enroll in an additional upper division English class (3-6 credits).

Content Analysis:

The curriculum specified in UNC's English degree program will have the appropriate knowledge, including:

- Understanding a wide variety of literature and materials (Introduction to Literature, Survey of American Literature, Survey of British Literature, British Literature II, Shakespeare)
- Understanding how to write for a variety of purposes and audiences (Advanced Expository Techniques)
- Knowledge of conventional grammar, usage, sentence structure, and punctuation (Traditional and Modern Grammars, Language and History of English, College Composition I & II)
- Knowledge of how to apply thinking skills to their reading, writing, speaking, listening, and viewing (Senior Seminar)
- Understanding how to read to locate, select, and make use of relevant information from a variety of media, reference, and technological sources (Senior Seminar)
- Understanding how to recognize literature as a record of human experiences (Critical Approaches to Literature)

The Post-Colonial or World Literature category relates directly to content knowledge needed in the K-12 Classroom, particularly the classes in *Mythology* and *Masterpieces of World Literature*. The other two areas are less relevant. The degree program could be enhanced with a speech course to teach oral communication skills.

Conclusion:

UNC's English degree program provides students pursuing middle and secondary language arts licensure with appropriate content knowledge.

UNC FOREIGN LANGUAGE

FRENCH, B.A.

CURRICULUM	**Credits**
General Education	40
French Major	34
Minor/Electives	8
Professional Knowledge	38
GRADUATION REQUIREMENTS	**120**

Students who complete a French degree program at UNC are required to enroll in 14 core classes. (34 credits)

FR 201	Intermediate French I	3
FR 251	Intermediate French Lab I	1
FR 202	Intermediate French II	3
FR 252	Intermediate French Lab II	3
FR 301	France: Its People and Culture	3
FR 302	Current Events in France	3
FR 311	French Civilization and Literature Survey I	3
FR 312	French Civilization and Literature Survey II	3
FR 407	French for Oral Proficiency	3
FR 450	Reading in French Literature	3

Three of the following four 2-hour courses: 6 credits

FR 411	France, Then and Now	2
FR 412	French Politics and Society	2
FR 413	The Francophone World	2
FR 414	Language and Society	2

Content Analysis:

The curriculum requirements specified in the French degree program ensures that students are proficient in a foreign language and the culture, including:

- Understanding how to communicate in a foreign language while demonstrating literacy in all essential skills:

  - listening and speaking (Intermediate French Lab I, Intermediate French Lab II, French for Oral Proficiency)

  - reading (French Civilization and Literature Survey I, French Civilization and Literature Survey II, Reading in French Literature)

  - writing (Intermediate French I, Intermediate French II)

- Knowledge of cultures while developing foreign language skills (France: Its People and Culture, Current Events in France, France, Then and Now , French Politics and Society, The Francophone World , Language and Society)

Conclusion:

UNC's French degree program provides students pursuing middle school and secondary foreign language with the appropriate content and language proficiency.

UNC GEOGRAPHY, B.A.

CURRICULUM	Credits
General Education	40
Geography Major	53
Professional Knowledge	38
GRADUATION REQUIREMENTS	**131**

Students who complete Geography degree at UNC are required to enroll in 7 Geography core courses. (22 credits)

GEOG 100	World Geography	3
GEOG 200	Human Geography	3
GEOG 232	Physical Geography	4
GEOG 264	Maps and Imagery	3
GEOG 302	Cartography	3
GEOG 495	Senior Seminar	3
SOSC 300	Social Studies Methods of Inquiry	3

Students must enroll in five additional geography classes (15 credits). At least one of these classes must be a course on a geographic region. The remaining four classes must include geographic systems courses.

In addition, students are required to enroll in 4 supporting courses (12 credits). These courses include the following.

HIST 101	Survey of American History from 1877 to the Present	3
PSCI 100	United States National Government	3
One of the following two courses:		
HIST 110	African Civilization	3
HIST 113	Asian Civilization II: Modern Transformation	3
One of the following two courses:		
HIST 120	Western Civilization from Ancient Greece to 1689	3
HIST 121	Western Civilization from 1689 to the Present	3

Content Analysis:

The curriculum specified in UNC's Geography degree program ensures that students will have geography content knowledge, including

- Understanding how to use and construct maps, globes, and other geographic tools to locate and derive information about people, places, and environments (Cartography, Maps and Imagery)
- Knowledge of the physical and human characteristics of places, and use of this knowledge to define and study regions and their patterns of change (World Geography, Human Geography, Physical Geography)

- Understanding how the physical processes shape Earth's surface patterns and systems (Physical Geography)
- Knowledge of how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation, and conflict (Western Civilization, Human Geography)
- Understanding the effects of interactions between human and physical systems and the changes in meaning, use, distribution, and importance of resources (World Geography, Human Geography, Physical Geography)
- Knowledge of people, places, and environments to understand the past, present, and to plan for the future (Survey of American History, US National Government, Western Civilization, African Civilization, Asian Civilization)

UNC students will have a strong grounding in geographic systems since all students will complete four classes in that concentration.

Conclusions:

UNC's Geography degree program provides students seeking middle school social studies licensure with the appropriate content knowledge. Including a course in Colorado geography could strengthen it.

UNC's Geography degree program provides students seeking secondary social studies licensure with the appropriate content knowledge.

UNC FOREIGN LANGUAGES

GERMAN, B.A.

CURRICULUM	**Credits**
General Education	40
Spanish Major	38
Minor/Electives	4
Professional Knowledge	38
GRADUATION REQUIREMENTS	**120**

Students who complete a German degree program at UNC are required to enroll in 13 core classes. (32 credits)

GER 201	Intermediate German I	3
GER 251	Intermediate German Lab I	1
GER 202	Intermediate German II	3
GER 252	Intermediate German Lab II	1
GER 301	Germany and the Germans I	3
GER 302	Germany and the Germans II	3
GER 311	German Civilization and Literature Survey I	3
GER 312	German Civilization and Literature Survey II	3
GER 407	German for Oral Proficiency	3
GER 450	Literature, Self and Society	3

And select three of the following courses:

GER 411	Germany Then and Now	2
GER 412	Politics and Society	2
GER 413	German Cultural Identity	2
GER 414	Language, Society and the Profession	2

And additional language courses (6 credits)

Analysis:

The curriculum requirements specified in the German degree program ensures that students are familiar with the disciplines and ideas, including:

- Understanding how to communicate in a foreign language while demonstrating literacy in all essential skills:
  - listening and speaking (Intermediate German Lab I, Intermediate German Lab II, German for Oral Proficiency)
  - reading and writing (Intermediate German I, Intermediate German II

- Knowledge of cultures while developing foreign language skills (Germany and the Germans I, Germany and the Germans II, German Civilization and Literature Survey I, German Civilization and Literature Survey II, Literature, Self and Society, Germany Then and Now, Politics and Society, German Cultural Identity, Language, Society and the Profession)

Conclusion:

UNC's German degree program provides students pursuing middle school and secondary foreign language with the appropriate content.

HISTORY B.A.

CURRICULUM	Credits
General Education	40
History Major	51
Professional Knowledge	38
GRADUATION REQUIREMENTS	**129**

Students who complete a History degree at UNC are required to enroll in six core history classes. (18 credits)

HIST 100	Survey of American History from Its Beginnings to 1877	3
HIST 101	Survey of American History from 1877 to the Present	3
HIST 120	Western Civilization from Ancient Greece to 1689	3
HIST 121	Western Civilization from 1689 to the Present	3
HIST 480	Senior Seminar	3

In addition, students are required to select one course from the following:

HIST 110	African Civilization	3
HIST 112	Asian Civilization I: From Prehistory to the 1600s	3
HIST 113	Asian Civilization II: The Modern Transformation	3
HIST 118	History of Mexico	3

Students preparing to become teachers must enroll in 8 additional history courses (24), primarily upper division course work, selecting at least 4 of these courses in one of three history concentrations: US History, European History, or a combination in Asian, African, and South American History.

In addition, students are required to enroll in 7 supporting social science classes (21credits). Six credits may be satisfied by general education courses.

ANT 100	Introduction to Anthropology	3
ECON 103	Introduction to Economics: Macroeconomics	3
GEOG 100	World Geography	3
PSCI 100	United States National Government	3
SOC 100	Principles of Sociology	3

Content Analysis:

The curriculum requirements specified in the History degree program provides content knowledge, including:

- Understanding the chronological organization of history and how to organize events and people into major eras to identify and explain historical relationships (Western Civilization)
- Understanding that societies are diverse and have changed over time (Western Civilization, Survey of American History, African Civilization, Asian Civilization)

- Knowledge of how political institutions and theories have developed and changed over time (United States National Government)
- Understanding how economic activity has developed and changed over time (Introduction to Economics: Macroeconomics)

In particular, UNC students will have strong grounding in US History because the majority of upper division courses offered are in US History. From the teacher preparation perspective, offering a course in Colorado History and a Comparative History capstone course could strengthen the degree requirements.

Conclusion:

UNC's History B.A. degree program provides students seeking secondary and middle social studies school licensure with the appropriate content knowledge.

UNC MATHEMATICS, B.A.

Secondary Teacher Education Emphasis

CURRICULUM	**Credits**
General Education	40
Math Major	41
Minor/Electives	0
Professional Knowledge	39
GRADUATION REQUIREMENTS	**120**

Students who complete Math degree at UNC are required to enroll in 12 Math core courses. (41 credits)

CG 120	Pascal Programming	3
MATH 131	Calculus and Analytic Geometry I	4
MATH 132	Calculus and Analytic Geometry II	4
MATH 221	Elementary Linear Algebra	3
MATH 228	Discrete Mathematics	3
MATH 233	Calculus III	4
MATH 321	Introduction to Abstract Algebra	4
MATH 341	Introduction to Modern Geometry	4
MATH 350	Elementary Probability Theory	3
MATH 351	Elementary Statistics Theory	3
MATH 437	Mathematical Modeling	3
MATH 464	Introduction to History of Mathematics	3

Content Analysis:

UNC's math curriculum ensures that students will have the appropriate knowledge, including:

- Knowledge of how to develop number sense and use of numbers and number relationships in problem-solving situations and communicate the reasoning used in solving these problems (Introduction to Abstract Algebra, Elementary Probability Theory, Discrete Mathematics, Calculus III, Mathematical Modeling)
- Understanding how to use data collection and analysis, statistics, and probability in problem-solving situations and communicate the reasoning used in solving these problems (Elementary Probability Theory, Elementary Statistics Theory)
- Understanding how to use algebraic methods to explore, model, and describe patterns and functions involving numbers, shapes, data, and graphs in problem-solving situations and communicate the reasoning used in solving these problems (Introduction to Abstract Algebra, Elementary Linear Algebra)

- Knowledge of how to use geometric concepts, properties, and relationships in problem-solving situations and communicate the reasoning used in solving these problems (Calculus and Analytic Geometry I, Calculus and Analytic Geometry II, Introduction to Modern Geometry)
- Understanding how to use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems (Elementary Probability Theory, Elementary Statistics Theory)
- Understanding how to link concepts and procedures as they develop and use computational techniques, including estimation, mental arithmetic, paper-and-pencil, calculators, and computers in problem-solving situations and communicate the reasoning used in solving these problems (Pascal Programming, Mathematical Modeling)

UNC's Mathematics degree program, Secondary Emphasis, provides students with a strong grounding in advanced mathematic concepts, including differential calculus and mathematical modeling.

Conclusions:

UNC's Mathematics degree program provides students seeking secondary licensure with the appropriate content knowledge.

UNC PHYSICS, B.A.

CURRICULUM	Credits
General Education	40
Physics Major	50
Professional Knowledge	38
GRADUATION REQUIREMENTS	**128**

Students who complete a Physics degree at UNC are required to enroll in 9 Physics core courses. (32 credits)

PHYS 240	General Physics I	5
PHYS 241	General Physics II	5
PHYS 301	Seminar in Physics	1
PHYS 320	Mathematical Applications	3
PHYS 321	Elementary Modern Physics	3
PHYS 340	Mechanics I	3
PHYS 341	Electricity and Magnetism I	3
PHYS 345	Atomic and Quantum Physics	5
PHYS 347	Optics	4

In addition, the student must complete 6 supporting science classes (25 credits). Seven credits can be satisfied within the Math and Science general education requirements.

AST 301	Classical Astronomy I	3
BIO 110	Principles of Biology	4
CHEM 111	Principles of Chemistry I	5
CHEM 112	Principles of Chemistry II	5
MATH 131	Calculus and Analytic Geometry I	4
MATH 132	Calculus and Analytic Geometry II	4

Content Analysis:

The curriculum specified in UNC's Physics degree program ensures that students seeking secondary Science Teaching licensure will have the appropriate knowledge, including:

- Understanding the processes of scientific investigation and design, conduct, and ability to communicate such investigations (General Physics, Mathematical Applications, Elementary Modern Physics, Calculus and Analytical Geometry I & II)
- Knowledge of the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment (Principles of Biology)

- Understanding the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space (Classical Astronomy, Earth Science elective)
- Understanding the common properties, forms, and changes in matter and energy (General Physics, Electricity and Magnetism I, Atomic Physics, Optics, Chemistry I & II, Mechanics I)
- Knowledge of the interrelationships among science, technology, and human activity and how they can affect the world (Quantum Physics)
- Understanding that science involves a particular way of knowing and the common connections among scientific disciplines (biology, chemistry, astronomy, physics courses).

Conclusion:

UNC's Physics degree program provides students seeking secondary and middle school science licensure with the appropriate content knowledge.

UNC SOCIAL SCIENCE, B.A.

CURRICULUM	Credits
General Education	40
Social Science Major	42
Minor/Electives	
Professional Knowledge	38
GRADUATION REQUIREMENTS	**120**

Students who complete a Social Science degree at UNC are required to enroll in 5 core social science classes (15 credits)

ECON 105	Introduction to Economics: Microeconomics	3
GEOG 100	World Geography	3
HIST 101	Survey of American History from 1877 to the Present	3
PSCI 100	United States National Government	3
SOSC 300	Social Studies Methods of Inquiry	3

Students must enroll in 9 additional social science classes in Economics, Geography, History, and Political Science (27 credits). These concentration classes are to be distributed in the following manner:

History	3 courses (9 credits), of which 3 must be taken from history courses in Africa, Asia or South America
Economics	1 - 2 courses (3-6 credits)
Geography	2 – 3 courses (6-9 credits)
Political Science	2 – 3 courses (6-9 credits)

Content Analysis:

The curriculum requirements specified in UNC's Social Science degree program ensures that students are familiar with the disciplines and ideas in the social sciences, including:

- Understanding the chronological organization of history and how to organization events and people into major eras to identify and explain historical relationships (Survey of American History, Social Studies Methods of Inquiry)
- Understanding that societies are diverse and have changed over time (Survey of American History, History concentration, geography concentration)
- Knowledge of how political institutions and theories have developed and changed over time (United States National Government, political science concentration)

- Understanding the purposes of government, the basic constitutional principles of the United States republican form of government (U.S. National Government)
- Knowledge of the structure and function of local, state, and national government and how citizen involvement shapes public policy (political science concentration)
- Knowledge of the political relationship of the United States and its citizens to other nations and to world affairs (Introduction to Economics, political science concentration)
- Understanding how citizens exercise the roles, rights, and responsibilities of participation in civic life at all levels—local, state, and national (political science concentration)
- Understanding how science and technology have developed and changed over time (no courses appear to address this)

The strength of this degree program is in its multi-disciplinary structure. It is particularly appropriate for middle school teachers who cover history, geography and political science in the classroom. It prepares teachers to team teach social studies.

Conclusion:

UNC's Social Science degree program provides students seeking middle school social studies licensure with the appropriate content knowledge.

UNC FOREIGN LANGUAGES

SPANISH, B.A.

CURRICULUM	**Credits**
General Education	40
Spanish Major	39
Professional Knowledge	41
GRADUATION REQUIREMENTS	**120**

Students who complete a Spanish degree at UNC are required to enroll in 13 core classes. (39 credits)

SPAN 201	Intermediate Spanish I	(3)
SPAN 202	Intermediate Spanish II	(3)
SPAN 301	Spanish Grammar	(3)
SPAN 302	Spanish Composition	(3)
SPAN 303	Spanish Conversation	(3)
SPAN 304	Introduction to Hispanic Literature	(3)
SPAN 321	Spanish Civilization and Culture	(3)
SPAN 331	Latin American Civilization and Culture	(3)
SPAN 350	Masterpieces of Spanish Literature	(3)
SPAN 351	Masterpieces of Latin American Literature	(3)
SPAN 405	Spanish Phonetics and Dialects	(3)
SPAN 407	Spanish for Oral Proficiency	(3)
SPAN 414	Contrastive Features of Spanish and English	(3)

Content Analysis:

The curriculum requirements specified in the Spanish degree program gain foreign language proficiency and knowledge of the Hispanic culture, including:

- Understanding how to communicate in a foreign language while demonstrating literacy in all essential skills:

  - listening and speaking (Intermediate Spanish I, Intermediate Spanish II, Spanish Conversation, Spanish Phonetics and Dialects, Spanish for Oral Proficiency)

  - reading (Introduction to Hispanic Literature, Contrastive Features of Spanish and English, Masterpieces of Spanish Literature, Masterpieces of Latin American Literature)

  - writing (Spanish Grammar, Spanish Composition)

- Knowledge of cultures while developing foreign language skills (Spanish Civilization and Culture, Latin American Civilization and Culture)

Conclusion:

UNC's Spanish degree program provides students pursuing middle school and secondary foreign language with the appropriate content and language proficiency.

UNC SPEECH, B.A.

CURRICULUM	Credits
General Education	40
Speech Major	36
Minor/Electives	3
Professional Knowledge	41
GRADUATION REQUIREMENTS	**120**

Students who complete a Speech degree at UNC are required to enroll in nine speech courses. (27 credits)

SPCO 102	Introduction to Speech Communication	3
SPCO 111	Oral Interpretation	3
SPCO 201	Inquiry into Speech Communication	3
SPCO 211	Argumentation and Debate	3
SPCO 212	Professional Speaking	3
SPCO 321	Interpersonal Theory	3
SPCO 330	Small Group Communication	3
SPCO 343	Persuasion	3
SPCO 491	Speech Communication Theory	3

Students must enroll in three additional speech communication elective classes out of an offering of fourteen courses (9 credits).

SPCO 212	Professional Speaking	3
SPCO 221	Nonverbal Communication	3
SPCO 232	Principles of Interviewing	3
SPCO 323	Intercultural Communication	3
SPCO 324	Family Communication	3
SPCO 331	Organizational Communication	3
SPCO 341	Courtroom Communication	3
SPCO 350	Communication in the Classroom	3
SPCO 404	Rhetorical Theory	3
SPCO 422	Directed Study	1-3
SPCO 431	Communication and Leadership	3
SPCO 444	Argumentation Theory	3
SPCO 461	Seminar in Speech Communication	1-3
SPCO 492	Undergraduate Internship	6

In addition, the student must complete one supporting class (3 credits)

JMC 100	Introduction to Journalism and Mass Communication	3

Content Analysis:

The curriculum specified in UNC's Speech degree program ensures that students seeking secondary social science licensure will have content knowledge, including:

- Understanding the relationships among the components of the communication process (Introduction to Speech Communication, Introduction to Journalism and Mass Communication)
- Understanding how to speak for a variety of purposes and audiences (Oral Interpretation, Introduction to Speech Communication, Professional Speaking, Persuasion, Argumentation and Debate)
- Knowledge of how to apply thinking skills to their speaking, listening, and viewing (Speech Communication Theory, Inquiry in Speech Communication)
- Understanding the influence of the individual, the relationship, and the situation on the communication choices (Speech Communication Theory, Interpersonal Theory, Small Group Communication, Nonverbal Communication)
- Knowledge of the role of communication in creating meaning, influencing thought, and making decisions (Communication and Leadership)
- Understanding how to use language that clarifies, persuades, and/or inspires while respecting the listeners' backgrounds, including their culture, gender, and individual differences (general education courses in Multicultural category, Intercultural Communication elective course)
- Knowledge to identify and use skills necessary for competent participation in communication across various types of electronic, audio, and visual media (Introduction to Journalism and Mass Communication)

UNC students will have a strong grounding in oral communications, including the fundamentals, contexts, and theories of speech communication. From the language arts teacher perspective, the content of this degree program could be strengthened by courses in literature. All UNC students take two composition courses as part of the general education requirements and may select one literature course to satisfy the art and letters general education requirement.

Conclusions:

UNC's Speech degree program provides appropriate content knowledge for students pursuing middle school and secondary language arts licensure.

UNC THEATRE, B.A.

CURRICULUM	Credits
General Education	40
Theatre Major	46
Professional Knowledge	40
GRADUATION REQUIREMENTS	**126**

Students who complete a Theatre degree at UNC are required to enroll in 16 theatre classes (43 credits).

THEA 100	Individual Performance in Theatre	12
MT 342	Workshop in Directing Musical Theatre	3
THEA 135	Playscript Analysis	3
THEA 149	Orientation to Technology	3
THEA 160	Beginning Acting	3
THEA 190	Stage Speech I	1
THEA 191	Stage Speech II	1
THEA 210	Drafting and Painting for the Theatre	1
THEA 240	Beginning Stage Directing	3
THEA 250	Stage Make Up I	3
THEA 260	Scene Study	2
THEA 275	Stage Movement I	1
THEA 276	Stage Movement II	1
THEA 310	Beginning Scene Design	3
THEA 385	Methods of Teaching Drama in the Secondary School	3
THEA 440	Directing the One-Act Play	1

In addition, students must complete one of the two following workshops (3 credits).

THEA 340	Workshop in Directing I	3
THEA 341	Workshop in Directing II	3

Students preparing to become teachers must complete two specified general education theatre history classes (6 credits):

THEA 330	History of Theatre I	3
THEA 331	History of Theatre II	3

Content Analysis:

The curriculum requirements specified in UNC's Theatre degree program ensures that students will have the content knowledge, including:

- Understanding the creative processes fundamental to acting, playwriting, and directing (Beginning Acting, Stage Speech I, Stage Speech II, Beginning Stage Directing, Scene Study)
- Knowledge of design and technical production (Orientation in Technology, Beginning Scene Design, Drafting and Painting for the Theatre, Stage Make-Up)
- Understanding how the theatre arts relate to history and culture (History of Theatre I & II)
- Understanding the merits, characteristics, and meanings of traditional and modern forms of dramatic expression (Playscript Analysis)
- Knowledge of how to develop interpersonal skills and problem-solving capabilities through group interaction and artistic collaboration (Individual Performance in Theatre)

UNC students will have a solid grounding in performance, directing, and theatre production.

Conclusion:

UNC's Theatre degree program provides students seeking middle school and secondary theatre endorsement with appropriate content knowledge and experiences.

TOPIC: **PROPOSED REVISIONS TO FTE POLICY**

PREPARED BY: **SHARON M. SAMSON**

I. SUMMARY

This agenda item introduces a new Full-Time Equivalent (FTE) Policy (Attachment A) that was developed in consultation with the governing boards and institutions. The proposed FTE Policy translates statutory language regarding general fund eligibility and limitations into a single policy document. If adopted, the policy becomes effective July 1, 2001 for FY 2001-02.

In August, the Commission and governing boards concurred that CCHE's FTE Policy needs to align with state priorities and become simpler to apply and interpret. After collaborating with institutions and governing boards, a new policy was developed that provides a general framework so that a "reasonable person" could interpret the FTE Policy. The proposed language:

- States the policy goals.
- Shortens the length of the policy, reducing the FTE Policy from 36 pages to 4 pages.
- Focuses the state's funding priorities by summarizing the statutory language regarding state general fund eligibility for different students and different instruction into an eligible and non-eligible list.
- Acknowledges that a credit hour equates to a measure of student learning, moving away from the counting-of-clock-hours mentality, e.g., "55 minutes equals a credit hour."
- Defines the roles of the Commission, the governing boards, and the institutions and the associated policy accountability processes.
- Addresses the major audit issues, particularly concurrent high school enrollments.

This item was discussed in greater detail at the February 1, 2001, Commission meeting.

The staff recommends approving the proposed FTE Policy, effective July 1, 2001, including appointing a standing FTE Advisory Committee to develop the FTE Audit Guidelines by July 1, 2001.

II. ISSUES RAISED DURING THE DISCUSSION

The governing boards support the proposed FTE Policy, particularly its brevity, flexibility to address special circumstances through exceptions, and the opportunity to clarify policy through interpretation. In essence, the new policy states that FTE eligible for state support must meet four criteria:

- In-state student enrollment
- Congruent with role and mission
- Within geographic boundaries as defined in statute
- Not one of the stated exclusions for state funding

FTE Definition

The issue that generated the greatest discussion at the February Commission meeting concerned the FTE definition. Colorado is one of two states that uses the same standard for undergraduate and graduate FTE. While there is general endorsement of the FTE measure that differentiates undergraduate and graduate FTE among the governing boards, the testimony at the meeting advised caution in taking this step. It was suggested that staff model the long-term impact of the proposed change. At present, the FTE definition remains unchanged -- 30 credit hours equal one FTE.

A change in the FTE definition can be introduced at any time. Since the definition only specifies the method of counting FTE, it does not impact the conceptual framework (Sections 1, 2, and 3), the eligibility parameters (Section 5), or its accountability (Section 6) of the new FTE Policy. CCHE staff, in consultation with the Chief Financial Officers, will model the funding scenarios and bring a recommendation to the Commission on the FTE definition in the near future.

High School Concurrent Enrollment

The number of Colorado students who concurrently enroll in high school and college is growing. Preliminary findings from a recent survey of school districts and colleges indicate that these options are not promoted effectively and sometimes, misinterpreted. Several school principals who advocate a simple common form to facilitate enrollment of high school students in college during the student's junior and senior year have encouraged the state to develop a common agreement.

The FTE Advisory Committee developed a draft Statewide High School Concurrent Enrollment Agreement (Attachment B) to illustrate the basic concepts of the agreement and clarify the enrollment options for students. After consulting with the Council for High School and College Relations, the FTE Advisory Committee plans to finalize this document by April 2001.

Customized Workforce Training

The proposed policy language differentiates between entry-level workforce training offered for postsecondary credit and continuing education workforce training. Job-entry workforce preparation includes those courses that qualify a person for an entry position or are required as a condition for employment (e.g., required courses in a certificate program). In contrast, continuing education workforce training provided advanced skills to upgrade skills or maintain knowledge of current technologies.

- Under section 5.01.03, *entry-level workforce training* offered for postsecondary credit by community colleges is fundable, including closed course sections.
- Under section 5.02.04, *continuing education workforce training* that is customized for a particular employer or the course section is closed to the general public is not eligible. Continuing education workforce training course sections that are offered on campus continue to be claimable.
- Under section 5.02.03, all *non-credit instruction* (except for remedial) is ineligible for state funding.

The Colorado General Assembly funds customized workforce training under Colorado First ($3.1 M) and Job First ($1.8 M). These funds are not FTE dependent and are administered by the community college governing board. The federal Workforce Investment Act provides additional workforce training funds; the federal dollars are directed to employees who reside in low-income regions.

Many employers fund customized workforce training. For example, Training Partnerships Inc. (TPI) is the corporation formed by QWEST and the Communications Workers of America to set policy for QWEST on educational benefits. TPI funds workforce development for QWEST employees throughout their 14-state operation. In January TPI announced that it is designating Aims Community Colorado as a provider of this workforce and the funding because of Aim's:

- Proven track record in distance education
- Existing distance education support capabilities
- e-learning goals, strategies and policies for future
- Student data reporting infrastructure
- Ability to customize new/current curriculum
- Readiness to start
- Current distance student support infrastructure
- History of collaboration with corporate clients

In summary, a variety of alternative funding sources for customized job force training exist. Industry is willing to accept the financial responsibility for customized training and the General Assembly has provided funds for others. CCHE's FTE Policy allows community colleges to claim entry-level customized training courses. It only restricts customized <u>continuing education</u> workforce training or closed <u>continuing education</u> course sections. Course sections that are open to the general public are the state's responsibility; course sections that are closed because an employer wishes to prescribe the curriculum or provide convenient access are the responsibility of the employer although they can receive state funds under Colorado First.

III. STAFF RECOMMENDATION

That the Commission approve the proposed FTE Policy, effective July 1, 2001, and request the Executive Director to appoint an FTE Advisory Committee to develop the FTE Audit Guidelines.

Appendix A

STATUTORY AUTHORITY

The Commission shall prescribe uniform financial reporting policies, including policies for counting and classifying full-time equivalent students, for the institutions and governing boards within the state-supported system of higher education. (23-1-105(1) C.R.S.).

Attachment A

PART B POLICY FOR REPORTING FULL-TIME EQUIVALENT STUDENT ENROLLMENT, EFFECTIVE JULY 1, 2001

1.00 INTRODUCTION

This policy applies to "all state-supported institutions of higher education, including, post-secondary institutions in the state supported in whole or part by state funds, and including junior colleges and community colleges, extension programs of the state-supported universities and colleges, local district colleges, and area vocational schools and specifically the regents of the University of Colorado and the institutions it governs. The governing boards and institutions of the public system of higher education in Colorado, including the University of Colorado, are obligated to conform to the policies set by the commission within the authorities delegated to it in this article." (C.R.S. 23-1-102(2)).

This version of the Full-Time Equivalent Student Enrollment Policy is effective July 1, 2001, and replaces previous versions of the policy. Furthermore, this policy nullifies any previous interpretations of the former policy, including general memos and exemptions.

The Commission recognizes that the FTE Policy may not address every possible circumstance. Institutions shall request an interpretation from the Commission when encountering a circumstance that the policy does not explicitly address. The Commission, in conjunction with the FTE Advisory Committee, will provide a formal interpretation that applies to all institutions. In contrast, exemptions approved by CCHE staff and entered into the public record do not alter or establish the state policy, but only apply to the applying institution for the particular circumstance for a specified period of time. All conclusions of the Commission are final.

2.00 STATUTORY AUTHORITY

The Commission shall prescribe uniform financial reporting policies, including policies for counting and classifying full-time equivalent students, for the institutions and governing boards within the state-supported system of higher education. (23-1-105(1) C.R.S.).

3.00 GOALS, PRINCIPLES, ROLES AND RESONSIBILITIES

3.01 Policy Goals

3.01.01 To achieve an equitable utilization of available state resources by specifying a uniform way to measure a student full-time equivalent (FTE).

3.01.02 To recognize the needs of individual students and state priorities in the policies for counting and classifying full-time equivalent students.

3.01.03 To achieve simplicity in state administrative reporting procedures.

3.02 Principles

3.02.01 The FTE policy will be student-centered, measuring FTE in terms of student academic enrollment activity.

3.02.02 The policy recognizes the academic integrity of credit hours assignment, relying on institutions to determine the credit hour assignment based on student outcomes and national standards.

3.02.03 The FTE policy recognizes the statutory role and mission of an institution or institutional type.

3.02.04 Statutory intent will determine claimable student FTE.

3.03 Roles and Responsibilities

3.03.01 The Commission is responsible for adopting, applying, and interpreting the FTE Policy and appointing members to CCHE's FTE Advisory Committee. The Commission may delegate its interpretation responsibility to a standing committee or the Executive Director.

3.03.02 The governing boards are responsible for implementing CCHE's FTE Policy, adopting policies and procedures to facilitate requests for interpretation, and nominating individuals to serve on the FTE Advisory Committee.

3.03.03 Compliance with the policy is subject to audit by the State Auditors Office. The State Auditors Office will report any FTE deviations to CCHE and the governing board of the institution in question.

3.03.04 An institution is responsible for adhering to the policy and the policy guidelines, requesting an interpretation from CCHE in ambiguous cases, providing clear documentation of the FTE calculations, and discussing issues regarding reported deviations to the General Assembly and the Commission.

3.03.05 The FTE Advisory Committee is responsible for assisting the Commission in interpreting the FTE Policy, developing the FTE Audit Guidelines, and recommending policy changes to the Commission.

4.00 FTE DEFINITION

A full-time equivalent student equals 30 credit hours for a semester system school and 45 credit hours for a quarter system school.

5.00 ELIGIBILITY PARAMETERS

5.01 Institutions may claim state general fund support for instruction that meet all the following four parameters.

5.01.01 Credit hours earned by Colorado residents as defined by state statutes, including but not limited to C.R.S. 23-7-101-109.

5.01.02 Credit hours earned in courses that are congruent with the delivering institution's statutory role and mission (C.R.S. 23), including entry-level workforce preparation courses offered by community colleges. Entry-level courses are those needed to qualify a student for an entry-level position in a field of work or a condition at the time of employment (i.e., 100 level required courses in a certificate program).

5.01.03 Credit hours offered within the geographic boundaries of the campus as defined in statute (C.R.S. 23-1-109). CCHE defines geographic boundaries to include credit hours earned from any Internet course or interactive television course delivered by a Colorado public institution of higher education.

5.01.04 Credit hours explicitly approved by the Commission for general fund support or not explicitly excluded in Section 5.02 or limited by conditions in 5.01.05.

Colorado statute authorizes dual funding for the same instructional activity offered to concurrently enrolled high school students under certain circumstances.

5.01.05 The credit hours earned by students enrolled in a Colorado public high school may be eligible (1) if the credits meet the general criteria listed in 5.01.02 and 5.01.04, (2) the credit hours are recorded on a college transcript, and (3) the credit hours earned comply with one of the following:

5.01.05.01 Meet the specific statutory provisions for FTE funding under the Postsecondary Options Act (e.g., those PSEO students that enroll under signed Statewide PSEO Agreement, students who have completed more than two years but less than four years of high school, or enrollments that have been granted an exemption by the Commission (22-35-107)).

5.01.05.02 Meet the statutory provisions for a fast-track program (22-34-101).

5.02 Instruction that may not be claimed for State general fund support.

5.02.01 Course enrollments that are generated by out-of-state students as defined in state statute (C.R.S. 23-7).

5.02.02 Course enrollments that are generated under enterprise operations, i.e., those exempt from Tabor (Article XX of Colorado Constitution).

5.02.03 Non-credit courses.

5.02.04 Course sections where the enrollment is closed to the general public, the curriculum is customized for an employer, or the course is funded by customized job training dollars that are separately appropriated (23-60-304, 23-60-306, and 23-60-307). This excluded job-entry workforce preparation courses.

5.02.05 Remedial courses offered by a four-year college, except Adams State College and Mesa State College, which may offer such instruction under their two-year role and mission (C.R.S. 23).

5.02.06 Academic skill courses and credits earned in a vestibule remedial lab offered by a four-year institution (C.R.S. 23).

5.02.07 Transcripted credits that are not directly attributed to college instruction (e.g., AP, ACE, IB, and CLEP).

5.02.08 Enrollments for which students are not charged full tuition, e.g., tuition waivers, excluding enrollment of children and grandchildren of the original residents of Ninth Street on the Auraria campus who are granted free tuition.

6.00 ACOUNTABILITY

6.01 Compliance with the policy is subject to audit by the State Auditors Office. The compliance audit procedures are described in CCHE's FTE Audit Guidelines.

6.02 CCHE may call for a performance audit if the FTE Reports identify an emerging issue or problem. CCHE will define the scope of the performance audit that may or may not include data that is collected for compliance audits.

6.03 The FTE Advisory Committee will represent a cross-section of the institutions and governing boards to whom this policy applies. At minimum, the FTE Advisory Committee will meet quarterly to review the FTE Audit Guidelines, answer frequently asked questions, and advise CCHE on policy interpretation.

STATEWIDE AGREEMENT / CONTRACT
BETWEEN
COLORADO SCHOOL DISTRICT and a COLORADO COLLEGE
HIGH SCHOOL CONCURRENT ENROLLMENT

You have indicated that you are interested in enrolling in a college course while a high school student. The State of Colorado provides several options for high school students who meet high school standards to begin college early. to promote content standards, provide academic challenges, and provide access to academic courses that may not be available at a local high school. All Colorado public four-year and two-year colleges and the three private colleges participate in the following dual enrollment programs.

High school seniors who have completed their high school graduation requirements may begin college under the FAST TRACK PROGRAM (The school district pays the tuition at the time the student registers and there is no limit on the number of courses).

High school juniors and seniors who are ready for college work in one or more subject areas are encouraged to enroll in college level work under POSTSECONDARY OPTIONS ENROLLMENT PROGRAM (School districts reimburse the students for the tuition if they pass the course). Students are entitled to reimbursement for two courses per semester; school districts may voluntarily agree to pay for additional courses beyond this limit.

High school students 16 years or older may open enroll in colleges courses as SPECIAL NON-DEGREE SEEKING STUDENTS. There are no limits on the type of course other than academic prerequisites. Because these enrollments are funded under PPOR, the student is not entitled to reimbursement but may qualify for financial aid.

Section A: To be completed by student **Name of Student** _____

SSN **School ID** **Birthdate**

Address

City **State** **Zip Code** **Telephone**

Name of Parent/Guardian

School District

High School **HS Principal**

College **Term** _____ **Year 2001-02**

College Course(s): _____ _____

_____ _____

_____ _____

Section B: To be completed by High School counselor/principal. Check all that apply.

a)____ This student is a senior who has met or will meet the high school graduation requirements before enrolling in college courses.
b)____ This student is a junior or senior who has not completed high school graduation requirements.
c)____ This student is a fifth year senior who will be enrolled in three or more high school credit only courses this term.
d) ___ This student is a fifth-year senior who has voluntarily agreed to postpone high school graduation.
e)____ This student is interested in remedial, academic skills, or physical education courses.
f)____ This student wishes to enroll in a course for high school credit only.
g)____ This student is eligible to participate and has the maturity to enroll in a college level course and complete the assignments for the course
h)____ The school district agrees to pay the tuition or tuition reimbursement for _____courses.

Signed: _____ Date: _____

Section C: To be completed by college administrator **Name of College** _____

_W__ Student is eligible under Fast Track (checked a, g, and h and no other category)
_X__ Student is eligible under Postsecondary Enrolment Options (checked b or c, g and h and no other category).
_Y_ Student is enrolled under a contract with the school district and not FTE claimable (check e or f).
_Z__ Student chooses to register as a special non-degree seeking student (h is not checked or e is checked)

Name of Course	Requires Assessment (check if applies)	Enrollment Options (W, X, Y, Z)	Approved for college enrollment

Signed: _____ Date: _____

Return copy to student /student guardian for signatures if the student is enrolling under Fast Track or PSEO

Section D: Fast Track and PSEO Only Students. To be signed by student and student's parent/guardian

I understand that this agreement entitles me to enroll in college courses for dual credit and that I may be eligible for school district reimbursement. I understand that if I enroll in these courses:

1) The course is a college-level course (i.e., remedial instruction and academic skills are not eligible under dual credit) and I will meet the same course requirements as college students.
2) The course is creditable to college graduation requirements (note: physical education courses, basic skills courses, advanced placement courses are not eligible under Fast Track or PSEO).
3) The course credits will only transfer if I earn a C or better in the course.
4) If I withdraw from the course after drop/add date, I will receive a W or W/F on my college transcript and will not be eligible for tuition reimbursement.
5) My school district has pre-approved my participation in a dual credit course.
6) I am not eligible for the privileges of a college student, i.e., may not participate in college activities or sports, not eligible for federal or state-funded financial aid, including institutional scholarships funded with general fund dollars.
7) If I choose to enroll as a college student, I need to submit an official application. This agreement does not admit me into college or a degree program.

In signing this agreement, I authorize the release of my transcript to my school district at the end of the course.

_____ _____
Student's signature Date

_____ _____
Parent's signature Date

A separate contract must be completed for each college that the high school student plans to attend.

TOPIC: **NORTHEASTERN JUNIOR COLLEGE 2000 FACILITIES MASTER PLAN**

PREPARED BY: **GAIL HOFFMAN AND JEANNE ADKINS**

I. SUMMARY

The Northeastern Junior College Facilities Master Plan 2000, submitted to CCHE in May, is the first facilities master plan for the college. Northeastern Junior College became part of the state Community Colleges of Colorado system in July 1997, after the electorate passed a dissolution proposal in November 1996. For 55 years before that, the college was a local community college supported in part by tax revenues from Logan County, its home county.

Northeastern Junior College first submitted a facilities master plan to CCHE and Community Colleges of Colorado in spring 1999 just as CCHE space utilization guidelines were being rewritten. That master plan was not acted upon. Northeastern Junior College then submitted a revised master plan. That version, now before CCHE, incorporates the new space guidelines; uses 1998, rather than 1996, as its base year; and contains revised conclusions. The master plan was reviewed and approved by the State Board of Community Colleges at its February 2001 meeting.

The master plan assumes that full-time equivalent enrollment will remain at about 1,000 between 1998-1999 through 2007-2008. CCHE figures show the 1998-1999 FTE enrollment at Northeastern Junior College was 1,570. The college projects the FTE enrollment will be 850 for 2001-2002, 925 for 2004-2005, and 1,000 for 2007-2008.

With no enrollment growth for the college, the facilities master plan outlines a program of consolidating space, demolishing some buildings, and upgrading others as a way of addressing the large space surpluses on campus. Some minor capital construction projects are outlined as well. The large space surpluses do not result from earlier higher enrollments. Instead, prior to joining the state system, the institution officials believed it was appropriate to build facilities as large as its financial resources would stretch.

By the target year of 2004, using CCHE space utilization guidelines, the master plan projects Northeastern Junior College will have space surpluses in almost every capital construction-funded category but Physical Plant (-45%) and Physical Education/Recreation (-6%). The space types of Other Instructional Space and Other Administration will have neither space surpluses nor space deficits. After the ten capital construction projects are completed, the master plan projects the college will have the following space surpluses and deficits:

NJC Space Surpluses and Deficits After Implementation of 2000 Master Plan

Space Type	Existing ASF	2004 Guideline ASF	2004 Surplus/ (Deficit)	Remaining Surplus/(Deficit)
Academic				
Classroom/Service	28,577	14,941	13,636	7,528
Class Lab/Service	59,121	18,441	40,680	35,903
Other Teaching	7,189	7,753	436	(46)
Other Instructional Space	11,584	11,584	0	0
Academic Office/Service	11,329	9,968	1,361	(155)
Physical Ed./Recreation	353	10,697	(10,344)	(10,344)
Child Develop. Center	2,314	2,314	0	0
Academic Support				
Library/Study	14,336	13,529	807	807
Gen. Admin.	18,994	14,227	4,767	4,622
Other Admin.	3,178	3,178	(1,196)	0
Physical Plant	11,475	16,608	(5,133)	(167)
Other Space				
Cafeteria (Aux. Funded)	17,076	17,076	0	0
Event Center (Aux. Funded)	45,564	45,564	0	0
Dorm & Service (Aux. Funded)	61,940	61,940	0	0
Student (Aux. Funded)	19,793	19,793	0	0
Public Service (Exhibition & Gallery)	6,550	6,550	0	0
Leased Space	8,782	16,406	(7,624)	7,624
TOTAL	**328,155**	**289,569**	**37,390**	**38,148**

Source: ***NJC 2000 Facilities Master Plan***

The deficit for physical education/recreation is currently covered under an auxiliary-funded facility, the Event Center, which has a health club and gymnasium, as well as performing spaces. The master plan recommends that about 24,292 assignable square feet of the Event Center be assigned to the State for maintenance. The 24,292 assignable square feet is about the size of a small gymnasium, plus support space, based on Council of Educational Facilities Planners. (CCHE has no space guidelines for gymnasiums and support facilities.)

The focus of the facilities master plan is to solve the surplus space problem in a number of ways. The North Central Association of Colleges and Schools cited the surplus space in its most recent visit to the campus in 1998. The North Central visit reaffirmed these general issues:

- Classroom and laboratory space needs to be condensed, upgraded, and reorganized for better space utilization;
- The physical plant needs more space for storage and maintenance;
- Buildings or portions of buildings should be demolished;
- Science laboratories are woefully inadequate and border on being unsafe for students;
- Academic divisions need to cooperate more in scheduling to make better use of facilities; and
- New academic programs will require space now used for other purposes, and may require facilities upgrades to meet program needs.

Demolishing some surplus, antiquated space; reassigning surplus space to other uses through renovation or leasing space; and consolidating space will help reduce the amount of surplus space. These are the particular strategies outlined:

- Renovating Phillips-Whyman to consolidate current classrooms and class lab space from Beede Hamil and Phillips-Whyman. (This project was approved by the Commission and prioritized for capital construction funding.)
- Reallocating space in Beede Hamil for Physical Plant, Adult, Continuing and Community Education, and the Computer Center.
- Renovating some E.S. French class laboratory space to classroom space, Physical Plant general institutional storage space, and administrative offices.
- Demolishing the antiquated Physical Plant facilities and constructing a new replacement structure.
- Relocating Walker Hall administrative offices to learning facilities on campus, thus increasing the amount of space available for lease.
- Making capital improvements to the newly acquired agriculture farm.
- Making capital improvements to the North Campus facilities.
- Making other minor capital improvements as required in the library, Student Center, Child Development Center, and elsewhere.

The master plan translates the above into a building project list. The cost figures and start year for the building projects are not included in the master plan. They came from the Five-Year Capital Improvement Plan for 2001-2002 through 2005-2006.

NJC Building Projects 2000-2008

Project Number	Project Name	Project Cost Estimate	Project Start Year
CIP-1*	Renovation of Phillips-Whyman Hall	$5,114,327 CCFE	FY 2001
CIP-2	Renovation of E.S. French Hall	$9,135,000 CCFE	FY 2003
CIP-3	Demolish Physical Plant Space, Ag Shop Bldgs./Build New Space	$ 400,000 CCFE	FY 2003
CIP-4	Renovation of Beede Hamil Hall for New Occupants	$ 400,000 CCFE	FY 2004
CIP-5	Increase Leased Space in Walker Hall	$ 500,000 CCFE	FY 2006
CIP-6	Reallocation of Classroom/Class Lab Space at North Campus	$1,000,000 CCFE	FY 2004
CIP-7A & B	Upgrades to Dowis, Herboldscheimer Residence Halls	$7,000,000 Cash	FY 2005
CIP-8*	Construction of Building/Upgrades for School Agriculture Farm	$ 350,000 ($ 150,000 CCFE $ 200,000 Cash)	FY 2001
CIP-9	Upgrades to North Campus Athletic Fields	$ 300,000 ($ 200,000 CCFE $ 100,000 Cash)	FY 2003
CIP-10	Miscellaneous Smaller Capital Projects		
TOTAL		**$24,199,327 ($16,899,327 CCFE $ 7,300,000 Cash)**	

*** CCHE approved for funding for FY 2001-2002; CIP-8 was approved for the cash-funded portion only**
Sources: *NJC 2000 Facilities Master Plan*; NJC Capital Improvement Plan 2001-2002 through 2005-2006

The 22 buildings on both Main and North campuses have an existing total gross footage of 480,026 (328,155 assignable square feet). When the space consolidations and other measures outlined in the master plan are completed, the campus will have 327,717 assignable square feet. The master plan recommendations obviously will not eliminate all the surplus space.

II. BACKGROUND

History

Northeastern Junior College's Main and North campuses are located in Sterling, a town of around 15,000 people approximately 125 miles northeast of Denver. The college was founded in 1941 as an outgrowth of the District 12 Board of Education and the Logan County High School Committee. The first class of 60 students enrolled in September 1941 and came from 17 northeastern Colorado communities. Citizens formed a junior college district in October 1944, voting in a tax to support the college. The college then became known as the Sterling Junior College. In 1945 the college bought a 15-acre campus centered by a building that once was Logan County's poor farm.

Later land additions brought the main campus total acreage to 25. In 1950 the name changed to Northeastern Junior College to reflect its larger area of service. The college received initial accreditation in 1964, and remains accredited with the North Central Association of Colleges and Schools. In 1965, the college added a summer session. In February 1996, citizens presented a local petition to the College Board of Trustees for the state community colleges to become part of the statewide system. The Board of Trustees prepared a dissolution plan that was accepted in the spring of 1996 by CCHE, the State Board of Community Colleges, the Colorado General Assembly, and the Governor. In November 1996, Logan County voters passed the required referendum to join the state system by a 2 to 1 margin. In July 1997, Northeastern Junior College became the 13th state-supported community college.

Role and Mission

As part of the state system of community colleges, Northeastern Junior College has the following role and mission as contained in Colorado Revised Statutes, 23-60-201:

> There is hereby established a state system of community and technical colleges which shall be under the management and jurisdiction of the state board for community colleges and occupational education. Each college shall be a two-year institution offering a broad range of general, personal, vocational, and technical education programs. No college shall impose admission requirements upon any student. The objects of the community and technical colleges shall be to provide educational programs to fill the occupational needs of youth and adults in technical and vocational fields, to provide two-year transfer educational programs to qualify students for admission to the junior year at other colleges and

> universities, and to provide a broad range of programs of personal and vocational education for adults.

The mission statement approved in 1999 states:

> NJC is a comprehensive learning community that produces skilled and knowledgeable citizens who will transfer successfully to four-year schools, enter the workforce productively and contribute positively to their own and society's economic and social well-being.

Community or Service Area

The CCHE-designated service area for Northeastern Junior College includes Logan, Phillips, and Sedgwick counties. With Morgan Community College, Northeastern also serves the counties of Washington and Yuma. These counties have a combined population of just less than 45,000. To reach the far-flung area, the Community Education Division serves 14 outreach centers with evening degree programs, continuing education courses for professionals, and many non-credit, special interest classes. Off-campus degree programs are offered in Yuma, Wray, and Holyoke.

The college has established the following relationships with the community:

- The Northeast Colorado Board of Cooperative Educational Services (14 school districts): Classes or degree programs are offered in remote locations using local area faculty and regular college staff.
- Customized training to meet the needs of local business and industry
- Classroom instruction to high-school students through the Post-Secondary Education Options Act
- Full partner with the Colorado Community College Online project: Enrolls students in on-line courses and providing faculty to develop new courses and teach courses on-line.
- Distance education courses: The college uses Picture-Tel to students in Julesburg and, in 1999, began providing classes by wireless remote in cooperation with several local school districts.
- Colorado Department of Corrections: The college has a major contract to provide instructors for classes offered at the new 2,445-bed Sterling Correctional Facility.

Campus Site

Northeastern Junior College Main Campus is a 27.1-acre residential campus of five operating dormitories a little northeast of the intersection of Colorado Highway 138 and Broadway Street in Sterling. North Campus, comprising 29.4 acres, is located about three-quarters of a mile away at the intersection of Colorado Highway 138 and County Road 30.5. The North Campus has the baseball field, the Career-Technical Building, Lebsack-Schmidt Hall for Automotive & Ag Diesel Mechanics, and the Welding Shop. The other 19 buildings are on the Main Campus. In addition, the college bought an

agricultural farm of 75 acres about a mile and a half north of the North Campus in 1997 to use for its agricultural programs. The college is paying back the loan through lease payments from the tenant farmer.

Recently Approved Master Plan Amendments/Program Plans

In 1999-2000 CCHE approved a program plan for Smart Classrooms for $497,514 Capital Construction Fund Exempt.

III. PROJECTED ENROLLMENT ANALYSIS

Projected Enrollment

Headcount enrollment is projected to nearly double through 2008, but FTE enrollment will decline due to a variety of factors. These are the projections in the master plan:

NJC Enrollment Projections, 1998-2008

	Base Year 1998-1999*	Phase I 2001-2002	Phase II 2004-2005	Phase III 2007-2008
Headcount:				
Non-Credit		190	200	220
Undergrad		4,555	4,800	5,280
Total Headcount	**2,739**	**4,745**	**5,000**	**5,500**
FTE:				
Day				
Non-Credit				
Lower Div.		757.4	824.2	891.0
Evening				
Non-Credit				
Lower Div.		92.6	100.8	109.0
Total FTE:	**1,579**	**850.0**	**925.0**	**1,000**

Sources: CCHE Opening Fall Enrollment Figures for 1998-1999; NJC Office of Information and Research

In 1998-1999, the ratio of headcount to FTE was 57.6%; by 2007-2008, the ratio is projected to drop to 18%. The Learning Services (Academic) Master Plan included in the plan cites these expected enrollment trends, among others:

- Northeastern Junior College will increasingly contract with the Sterling Correctional Facility to offer ABE/Graduation Equivalency Diploma/English as a Second Language classes to prisoners, but these classes will not enhance FTE.
- The high school graduation rate for the entire United States is expected to rise after 2000. Because a majority of Northeastern Junior College students are traditional

recent high-school graduates, this may mean the college will attract an increased number of applicants.

- A strong economy with plentiful employment opportunities will challenge traditional enrollment at Northeastern Junior College.
- Increases in tuition costs will dampen enrollment.
- Child-care and housing shortages will threaten college enrollments, economic stability, and community growth.
- Public school enrollments throughout Logan County and the five-county service area will level off or decrease over the next three years due to migration to employment opportunities along the Front Range.
- Concurrent enrollments of high school students taking college courses will increase. Distance learning and competition from Morgan Community College will impact these enrollments.

The master plan assumes that the percentage breakdown of FTE students enrolled in various programs at Northeastern Junior College will remain the same as it was in 1996: 37% Humanities, 31% Business/Science, 17% Ag/Tech, and 16% Community Education. The same percentage breakdown was projected because agriculture programs have always been strong at Northeastern Junior College. Historically, about half the students at Northeastern Junior College transfer to four-year schools. To do so, they enroll in many of the core classes taught in Humanities. These are the projections for student credit hour production by organizational unit, compared to the actual figures for 1996:

NJC FTE % Enrollment, Credit Hour Production by Organizational Unit

FTE %	1996	2001	2004	2007
Humanities (37%)	8,538	9,492	9,611	9,681
Business/Science (31%)	7,113	7,905	8,224	8,288
Ag/Tech (17%)	3,914	4,386	4,565	4,722
Community Education (16%)	3,622.5	3,957	4,165	4,219
Total	**23,172.5**	**25,580**	**26,565**	**26,910**

Enrollment Trends

Northeastern Junior College had fairly steady enrollment until the college became part of the state system in 1997. When the college joined the state system, students had to begin paying for all courses by credit hour. Another slump in enrollment occurred in 1995-1996, when the college eliminated a tuition waiver “window” to students taking more than 12 credits. This is the enrollment history — headcount and full-time equivalency — for the past 10 years:

NJC Enrollment History (1990-2000)

Year	Fall Headcount	%Change	Yearly FTE	%Change
1990-91	2,010	---	1,712	---
1991-92	1,762	-12.3%	1,780	4.0%
1992-93	1,849	4.9%	1,825	2.5%
1993-94	2,057	11.2%	1,648	-9.7%
1994-95	1,923	-6.5%	1,633	-0.9%
1995-96	1,930	0.4%	1,593	-2.4%
1996-97	1,900	-1.6%	1,713	7.5%
1997-98	2,000	5.3%	1,532	-10.6%
1998-99	2,739	37.0%	1,570	2.5%
1999-00	--	--	1,538	-2.0%

Source: CCHE Student Enrollment Figures

As is typical of many community college students, only a small percentage of Northeastern Junior College students attend school full time. Northeastern Junior College has the highest percentage among Colorado community colleges of freshmen continuing to their sophomore year. (Arapahoe Community College came close, with 68.2%.) This is the 2000 profile of Northeastern Junior College students:

NJC Student Profile, 2000

Undergraduate Population	100 %
Full-Time Student	18.3%
Undergraduate In-State Students	96.0%
Freshmen Continuing to Sophomore	70.7%
First-time, Full-Time Freshmen Graduating in Two Years	18.8%

Source: ***CCHE 2000 Consumer Guide***

Demographic Analysis

Growth in the five-county area, particularly of the 18-22 cohorts, is of significance because about 60% of Northeastern Junior College's student body comes from the service area. The overall population is growing slowly, according to the following actual and projected population figures for 1990-2010:

Population Growth in NJC Service Area 1990-2010

County	1990	1995	2000	2005*	2010*	% Change 1990-2010	% Avg. Annual Change
Logan	17,487	18,527	18,849	22,651	25,365	31 %	1.55%
Phillips	4,188	4,536	4,631	4,781	4,972	15.7%	0.785%
Sedgwick	2,680	2,648	2,755	2,843	2,939	8.8%	0.44%
Washington	4,804	5,363	5,205	5,352	5,514	12.8%	0.64%
Yuma	8,947	9,435	9,810	10,267	11,176	19.9%	0.995%

***Projected**
Source: Colorado Department of Local Affairs, State Demographer's Office

The enrollment projections, combined with the demographic data indicating a possible increase in the cohort of traditional college students after 2000 after a recent decrease, seem valid. It must be noted, however, that the space surpluses already on campus and the open spaces should more than accommodate enrollment increases beyond what is projected — assuming funds are available to upgrade and renovate the existing buildings.

IV. FACILITIES NEEDS ANALYSIS

Governing Board Priorities

The involvement of the Board of Trustees of Community Colleges of Colorado in setting priorities for Northeastern Junior College and the other institutions under its jurisdiction isn't clear from this master plan.

Academic and Facility Needs

Northeastern Junior College offers transfer curriculum for students intending to go on to four-year institutions, career and technical education, community education, and developmental and special needs education. The college offers courses in five general areas:

- Humanities and Human Services
- Business and Science
- Agriculture
- Career and Technical Education
- Adult, Continuing, and Community Education

Northeastern Junior College awards these degrees or certificates:

- Associates of Science and Associates of Arts degrees after completion of 62 semester hours of specified courses. The degrees can be transferred to four-year institutions.
- Associates of General Studies (62 semester credit hours) that some four-year institutions have agreed to accept.
- General Studies certificates after completion of 30 semester hours.
- Two-year programs (automotive technology, erg. diesel and equipment, automotive diesel master technician, criminal justice, cosmetology, and police academy) culminating in an Associate of Applied Science Degree.

Adult, Continuing, and Community Education offers programming on- and off-campus in Adult Basic Education, health and safety, occupational skills training, degree credit classes, re-certification classes for educators and others, travel studies, Young Farmers, older adults programs, Red Cross first aid courses, Emergency Medical Technician re-certification programs, business and industry training, and community education classes.

Declining enrollments in the arts and humanities, if they continue, may mean the elimination of programs or reallocation of space. The Humanities classes that are declining in enrollment are the elective ones in theater, dance, music, art, and sculpture. The declines could be due to students having to pay tuition for every class. When they could enroll in 12 to 18 credit hours at the same tuition rate, enrollment in the Humanities electives was higher. More students taking other Humanities courses to prepare for eventual transfer to a four-year institution, however, have offset these enrollment declines. The academic plan is linked with the facilities plan in these ways, among others, by suggesting:

- Review of program scheduling to achieve greater flexibility and responsiveness to community/student need. (The facilities master plan notes that classroom and lab use is far below CCHE guidelines. Better scheduling could improve classroom and lab usage.)
- Using actual enrollment patterns to reallocate/remodel space for maximum learning effectiveness. (This addresses CCHE concerns about underutilization of space. Classroom utilization at Northeastern, for example, is 37% of the CCHE guideline of 60 hours a week. None of the classrooms at Northeastern are scheduled for 60 hours or more a week.)
- Consolidating space and equipment for more effective use, eliminating unused resources, and re-directing under-used resources. (Doing this would make better use of the spaces and equipment the college has.)
- Improving electronic connectivity throughout northeast Colorado to better transfer skills, knowledge, information, commerce and other needs. (More electronic connectivity can help the college extend its range to better serve its area.)

Impact of Technology

Northeastern Junior College is the only community college in Colorado currently assessing a technology fee. Students voted in the fee before the college came into the state system. Students are charged $4.90 per credit hour for technology classes and those with a technology component. The technology fee applies to about 30 non-technology courses.

The *Information Technology Update March 2000* included in the master plan states that Northeastern has recently completed an agreement with the Northeast Colorado Board of Consolidated Educational Services to operate a wireless technology distance education program. This same system could be used to deliver coursework to the Department of Corrections, Sterling facility, according to the update. In so doing, the college could reduce the need to hire staff to be trained to teach at the prison. Using technology in this manner can improve institutional efficiency, one of the state goals for technology use.

According to information submitted to CCHE separately, Northeastern Junior College had some technology component in 439, or 29%, of all 1,525 courses offered during the 1999-2000 academic year. About 4% of the courses were delivered via distance learning, with the following methods:

Distance Learning at NJC, 1999-2000

Distance Learning Delivery Method	Number of Courses
Online	56
Tele-Course	6
Pic-Tel	2
Total	**64**

Source: NJC Division of Learning Services

The master plan makes clear that the college is just beginning to grapple with how distance learning may affect enrollments of students who want to attend classes at the Main or North campuses.

Leased Spaces

Northeastern Junior College leases about 8,782 square feet of space. Most of the square feet are at the Area Vocational School, a cooperative enterprise with the school district on the North Campus. But a growing portion of leased space will be at Walker Hall, now used for administrative purposes.

Surplus space in Walker Hall is already leased to several entities such as the Department of Corrections and Legal Services. The six-story Walker Hall is not handicapped accessible. Part of it was built in 1955 and the remainder in 1970. The cost of adding a lobby and elevator to the 1970 portion of the building is prohibitive and the college has decided it would be better to vacate the building, relocate these functions elsewhere, and lease the rest of the building to other interested groups. Business Office functions and administrative functions will be moved to other office space in ES French, Phillips-

Whyman, and Knowles halls. The Computer Center in the basement of Walker Hall will be moved to Beede Hamil Hall. This will free more space for lease and provide a better ground-floor location for the Computer Center.

Leasing more of Walker Hall could be both good and bad for the college. Leases of surplus space could provide the college with some needed revenue to make improvements. At the same time, using controlled maintenance funds will not be allowed for leased spaces. This will mean that the college will need to build in large enough lease payments to pay for long-term building maintenance.

Space Utilization

While the master plan clearly attempts to provide more efficient use of space, and reduce the amount of surplus space through demolition or leasing, the college still needs to do much more to use more of its space more often. The campus time-of-day data in the master plan indicates classrooms and labs are mostly used from 9 a.m. to 3 p.m., with usage falling off between 7-9 a.m. and 3-7 p.m. The figures indicate, too, a large dip in classroom and lab usage over the noon hour.

One of the results of past overbuilding is that many classes are taught in classrooms or spaces too large for current enrollment. The college, therefore, doesn't come close to meeting CCHE space utilization guidelines in any category with the exception of its Physical Plant allocations. The master plan acknowledges this, and suggests coordinated scheduling by all academic divisions to make the best use of available space.

Below is a comparison of CCHE space utilization guidelines, with Northeastern Junior College's usage in the base year of 1998:

CCHE Space Utilization Guidelines/NJC Usage, 1998

Type of Space	CCHE Guidelines	NJC Usage	%Surplus (Deficit)
Classroom/Service	60 hours/wk; 70% of capacity	22 hours/week; 46% of capacity	48%
Laboratory/Service	40 hours/wk; 80% of capacity	13.9 hours/week; 43% of capacity	69%
Other Teaching Lab/Service Space	20 asf per student station (includes service space)	Above 20 asf for most purposes	6%
Academic Office/Service Space	No CCHE standards on this category. NJC used 80-300 asf per headcount, depending on position.	Because of room configuration, scattered locations, NJC exceeded the guideline in many instances.	14%

Library/Study Space	Space based on volumes, average growth in collection annually, FTE		10%
Gen. Admin./Service	No CCHE guideline. NJC used 163 to 74 asf depending on position for 1998 FTE of 117.6 FTE and 119 headcount employees	Totals don't include space for student hourly work-study employees. If they did, surplus would be less.	29%
Physical Plant Space	No CCHE guideline. NJC used percentage of total existing square footage, broken down into offices, service space, storage, shops, and miscellaneous.		(-45%)

Source: ***NJC 2000 Facilities Master Plan***

V. STAFF RECOMMENDATION

Staff recommends that the Commission approve the Northeastern Junior College 2000 Facilities Master Plan.

TOPIC: **UNIVERSITY OF COLORADO AT BOULDER FACILITY MASTER PLAN REVIEW**

PREPARED BY: **JEANNE ADKINS**

I. SUMMARY

The University of Colorado at Boulder Facility Master Plan was presented for Commission review by Chancellor Richard Byyny at the October 5, 2000, Commission meeting and subsequently reviewed by staff in November 2000. Following concerns raised by the Commission members, President Elizabeth Hoffman of the CU-System withdrew the plan from consideration to enable the institution to address several issues raised in the initial evaluation.

These issues included:

1) That UCB provide a class utilization review based on actual classroom/lab space available and used for that purpose both within its centrally-scheduled classroom system and its departmentally scheduled academic/lab system in conjunction with the building inventory directed jointly by the Regents and CCHE as a condition of approval for the Center for Visualization.
2) That UCB provide the previously requested assessment of the centrally scheduled classroom pool and its reduction and growth over no less than the past five-year period within 60 days.
3) That UCB resubmit its project list in a prioritized format and by function to indicate how the top priorities in each category would be integrated if the decisions were made today and to reflect the deletion of the Science Library agreed to in the Law School approval and the center renovations also to be incorporated in the Fleming remodel.
4) That UCB be allowed to proceed with planning and construction on the Grandview property, but that no projects be approved for the property until a more detailed assessment of density issues and corresponding traffic and parking solutions is presented.
5) That the Commission deny approval to fully develop the South Campus and that no projects be approved in this area.
6) That the institution provide an updated examination of its building inventory condition, incorporating projects completed since it was implemented in 1985 and the impact on the backlog, the institutional investment (historic and projected), the annual controlled maintenance investment and future projections for allocations, and alternate solutions to safeguard the historic and non-historic facilities.
7) That no new projects be approved until the institution addresses the housing issues it raises in the plan and provides a timetable for resolution.
8) That cash-funded projects, including athletic facilities, be prioritized by the institution and evaluated in some context within a plan amendment.

In the interim, the institution has addressed several of the larger issues. The Commission must determine whether the changes are sufficient and whether the plan is adequate and should be the basis for future expansion and renovation of the Boulder campus.

II. BACKGROUND

The University of Colorado-Boulder's last approved master plan was submitted to CCHE for review and approval in 1990. Its base for the relevant master plan segments generally was Fall 1989 data or a five-year window from Fall 1985-89 data. The current plan, approved by the Regents in August 2000, uses 1997 as its base year. Given the age of data, staff has attempted to compare actual to projected numbers where possible. The result is a seven-year forecast from the institution's perspective. If approved, the proposed Master Plan for the Boulder campus will serve to guide academic and facility program planning through 2008.

The plan encompasses the current Main Campus (306 acres), the Williams Village housing area (64 acres), the South Campus (308 acres), its East Campus (197 acres) and the Mountain Research Station (192 acres) for a total landmass of 1,067 acres.

III. STAFF ANALYSIS

In assessing the new submissions provided by UCB for review, the Commission should first note the success of its decision requesting that UCB, Historic Boulder and the City of Boulder work through a mediator to resolve significant differences over Grandview development and its future.

Mediation has resulted in a solution that not only meets the needs of the institution, but also which serves the preservation interests and long-term needs of the city.

Approved by the city and the Regents, the agreement preserves a central core of bungalows for a 25-year period, retaining them for institutional use, demolishing other buildings in the area that will provide sites for new facilities and brings additional transportation and parking solutions to the institution.

Of the 40 buildings within the neighborhood, UCB owns 31, had two under contract and another is owned by the CU Foundation. Six are privately owned and another remains owner-occupied. The 11-acre neighborhood is immediately adjacent to the core campus and within easy walking distance of most existing academic buildings.

The institution's desire for adjacent space that meets research needs and academic and administrative needs within its 10-minute walking guideline makes development of Grandview a priority long-term. Its short-term uses also are attractive and the agreement reached allows multiple needs to be accommodated.

UCB has provided a micro-master plan for the area reflecting the terms of the agreement.

The 25-year preserve will encompass the UCB owned bungalows facing Grandview Avenue between 13th and 15th Streets. UCB may use the facilities for a variety of uses, including housing. All remaining UCB-owned property is within the agreed redevelopment area. New buildings as well as renovated buildings are planned to meet academic, administrative, research and ancillary institutional uses.

The agreement states that three buildings on the perimeter – 1505 University Avenue, now the Continuing Education facility, 1511 University, known as the Armory and housing the Journalism/Mass Communication program, and 1546 Broadway, which now houses a research institute – will be retained for at least the planning period in the agreement.

Given the terms of the agreement, the Grandview neighborhood could at full build-out encompass more than a half million square feet. However, within the 2008 window, the micro-plan anticipates only 180,000 square feet of building space plus additional parking space. Minus the demolition that would result, the construction planned over the life cycle of this plan will actually be less.

The agreement incorporates landscaped setbacks along University and Broadway to ease transitions between the campus and surrounding community. Redevelopment at the corner, although dependent on potential acquisition of 1402 Broadway by UCB, could create a new campus entrance.

Another positive plan feature is proposed vacation of portions of the existing 13th Street right-of-way and public alleys. Improved pedestrian access is a joint project between the city and UCB and plans call for a new pedestrian overpass over 17th Street. An existing alley, for example, is planned as a pedestrian spine for east-west access to the neighborhood.

A final piece of the agreement – assumption of 470 city-controlled parking spaces by UCB – between Broadway and the Armory provides UCB with parking management options it did not have. An additional 88 spaces on University and 70 on a parcel to the east leave the institution with 629 integrated spaces it will now control.

The institution has proposed interim uses for some land areas during the life cycle of the current plan, including development of potential surface parking areas that would serve an expanded area.

UCB hopes to acquire the remaining privately owned buildings in the neighborhood over the life of this plan. Its development schedule for Grandview is dependent on demolition, determining existing building and preserved building uses, identifying space need priorities and availability of funds from various sources.

Prioritized within Tier 2 of its capital project plan is the continued demolition of buildings not within the preserve area and renovation of preserve area bungalows and other buildings for new uses as well as development of Grandview Commons and the Grandview Research Buildings. During the latter years of the plan an additional 75,000 gross square feet of research space is projected.

10-minute Walk Assumption

Responding to the questions about maintaining the 10-minute walk as a foundational assumption of its plan, UCB provided staff with an assessment that expanding the walk-time to 15 minutes would cause loss of a full class hour during the day for centrally scheduled classrooms.

It maintains this policy has been in effect for academic facilities since the 1990 plan and should continue for undergraduate academic planning. UCB planners contend the policy allows maximum scheduling within the core academic area of its campus. Officials concede technology that would allow individualized scheduling options would provide greater flexibility.

While the focus of the UCB scheduling is not illogical, it does concentrate on scheduling in a narrower daytime window. Expanding that window eliminates some of the class-hour loss and also expands the ability of the UCB centralized classroom inventory to accommodate more students.

Staff believes there is a rationale for the current assumption, but believes the institution should continue to test the assumption regularly during the life of the plan and beyond as the next plan is constructed. Doing so would enhance the institutional space utilization, free up additional potential building sites on the East Campus and potentially accommodate student needs better.

Overall Parking Issues

In response to questions raised concerning the transportation plan embedded within the institutional master plan, UCB has negotiated the Grandview agreement, generating significant additional parking in the short-term.

Supplemental documents indicate a significant effort in developing bus and shuttle services internally and to and from the campus.

The supplemental information indicates that the Denver Regional Council of Governments has approved development of an East Campus-Main Campus shuttle called the STAMPEDE. When the shuttle is functioning – planned in 2002 – UCB intends to use surplus parking on that campus to accommodate Main Campus parking needs. Additional sites are available on East Campus to develop more parking than now exists.

However, the institution believes it can continue to develop bike paths and pedestrian walkways that reduce the need for future parking. It also plans to continue to work on transit service route expansion.

Finally, the supplemental information indicates that the Williams Village parking lots are accommodating Main Campus residence hall overflow for 353 students. Lots are at capacity for this type of parking. UCB plans to construct additional residential living units in the village, a factor that will further reduce the supply of spaces and increase demand.

The supplemental data, however, indicate that resolution of this issue is dependent on the affordability of the solutions and that given current circumstances, that may not occur during the eight-year plan life.

UCB's proposed solution is to use temporary surface lots it can develop within Williams Village and encourage bicycle/pedestrian access for students between the housing area and the Main Campus.

In the short-term the solution is viable. However, as plans for additional housing units proceed, staff notes that questions concerning parking for the increased demand created by those projects be addressed. Program plans should incorporate at least the short-term location of alternative parking to address the Williams Village needs.

Supplemental information indicates that one or more structured parking facilities may be incorporated into the expansion of the Williams Village and addition of housing units. If the program plans do not incorporate that option, some temporary parking will be necessary to accommodate the expansion. Since the institution intends to seek private partners for the residential project, seeking a similar partnership for a structured parking facility could be incorporated.

UCB makes significant efforts to encourage alternate transportation for its faculty, staff and students, but the factors at play in the initial plan analysis – a steady freshman class growth, staff and faculty living greater distances from campus and an increase in short-term campus visits with increased research space as well as employee growth – remain a concern and should be addressed as projects are brought forward.

East Campus Uses

Staff had suggested UCB revisit its Research Park development on the East Campus and the assumptions underlying its plan. Although staff did not suggest a timeframe for that re-examination, UCB provided supplemental data for this issue in its revised submission.

UCB's goal is to have research facilities within Grandview where students are interacting with the researchers. Its rationale is the 10-minute class/lab walk assumption. While staff

understands that desire and believes student participation in research enhances educational opportunities, there is significant underutilized space on the East Campus that could be developed for this purpose.

The location of non-interactive research that does not integrate classroom instruction or involve staff/faculty/student interaction at either the graduate or undergraduate level on the East Campus is limiting the potential uses for this property.

The institution points out many times in its plan that its growth options are limited. However, staff continues to maintain that much of the East Campus is underutilized and re-examination of those options should be a consistent process whenever UCB is proposing to locate a new facility for campus use. It should not foreclose academic and integrated research options on the site.

There is no significant reason such facilities could not co-exist with the private and quasi-private research facilities in the research park. UCB's efforts to expand research connections with private sector partners are a positive element of its role as a premier research institution.

Development of the shuttle can make this campus more versatile and its use should be integrated more fully to meet student needs. Planning for the development within the East Campus is the weakest link within the UCB plan.

Capital Project Prioritization

Supplemental information to the master plan document now prioritizes the proposed capital projects, including cash-funded projects, within the timeframe covered by the plan. The list categorized by project type as proposed by the institution is included as Attachment A of this agenda item. In addition, the institution has submitted a more complete rationale for the various projects incorporating long-term academic objectives for the projects. The list reflects the changes made to the plan with reference to the Commission-approved Law School project changes, removing construction of a Science Library, for example, from the proposed list. It will be located in the vacated Fleming Building.

Projects outlined include:

- **Grandview Commons:** The proposal consolidates research now located within 10 buildings, including some leased space. The Institute for Behavioral Science (IBS) would be significantly enhanced by consolidation of the projects. UCB proposes consolidating these facilities within the early years of the master plan. Meetings have begun to assess how such a consolidation might be accomplished to accommodate the seven academic departments that use IBS space for research. Programs involve approximately 25 graduate students. Plans to incorporate a new Health Behavior program would require more than doubling the existing 42,000 assignable square feet

of IBS space. UCB says duplication of service space and staff will result from consolidation and it will need to address those issues.

- **Grandview Research Buildings:** Two research buildings are proposed for the Grandview area, including one that would incorporate the INSTAAR research program on the East Campus. Consolidation of several Environmental Studies research programs is proposed within these facilities. Without reiterating the issues raised in the earlier discussion of East Campus uses, as program plans are brought forward, it would be appropriate for the Commission to ask that UCB not construct new facilities within Grandview that leave aging underutilized buildings on the East Campus vacant. If that would result, UCB should articulate in its program plans why that outcome is desirable. While it is true many of the facilities in question have been constructed using cash resources and that the future facilities proposed would be similarly funded, construction of new facilities as replacements reduces cash funding for other potential uses. East Campus renovation options should always be evaluated as a legitimate alternative.

- **Center for the Visual Arts:** The institution anticipates constructing new space for its fine arts program. UCB believes the existing facilities are dysfunctional and that better instructional opportunities integrating technology would result from a new facility. It also plans an art museum within the facility to house the Colorado Collection. Academic goals for the facility include incorporating multi-disciplinary programs integrating both traditional arts and art history.

- **Physics H-Wing Renovation:** This 1960 building was originally designed for 20 faculty and the Duane Physical Laboratories now house more than 100 faculty. Unranked then, the Departments of Physics and Astrophysical and Planetary Sciences are internationally recognized. The Atmospheric and Oceanic Sciences and the Department of Applied Mathematics have been subsequently developed. The former is located in the physics lab area and the latter program faculty believe adjacency would significantly benefit students. The Astrophysical program now occupies space in five campus buildings, for example, and consolidation would allow better program integration, according to the plan.

  The complex includes several institutes and centers: JILA, the Joint Institute for Laboratory physics, $16.2 million in research funds; LASP, the Laboratory for Atmospheric and space Physics, with $42 million in funding; CASA, the Center for Astrophysics and space Astronomy, $8.5 million in funding; the Center for Imaging the Earths Interior, the Center for Integrated Plasma Studies and the Ferroelectrics Liquid Crystal Materials Research Center, as well as the Program in Atmospheric and Oceanic Sciences.

  Initial plans indicate both office and lab space are necessary and integrating the needs of the various centers, institutes and departments to share space is part of the planning process. Additional National Institute of Science and Technology funding and

location of two senior researchers who bring research funding to the center require expanding JILA to accommodate an additional 8,000 square feet within the next three years.

- **School of Journalism and Mass Communications:** The supplemental information proposes a new building for this program to incorporate new technology and media practice. Space needs for the program have expanded, although it has moved to the Armory building consolidating most faculty and teaching in that space, faculty believes the solution is temporary. Video production technology changes, as well as other significant technology changes within the media communications field require different types of space than now exists for the program. As a final concern, the ability of the school to bring in external professionals for teaching, research and practice is limited, according to the supplemental information, by the existing facility. These facility limitations also are viewed as limitations for students in ensuring they are prepared to work in existing communication firms. Faculty believe a new facility will integrate journalism and mass communication students with visual arts and film students, allowing student access to multiple studios and lab facilities within each department.

- **Norlin Library:** The supplemental data indicates the mechanical systems for the library, constructed in 1940 and renovated in the early 1970s, need upgrades. The plan indicates the existing facility is unlikely to support new technologies for several disciplines. UCB anticipates a retrofit and significant redesign of this facility that integrates technology both in storing and transmitting electronic data, but integrating teaching technology tools with this information technology.

Classroom Utilization Review

In the initial review of the UCB master plan, staff recommended the Commission require a space audit in conjunction with the motion approving the Center for Visualization approval by CCHE in October 2000.

The supplemental information submitted by UCB planning officials anticipates completion of a project by the initial June 2001 timetable suggested by staff.

As outlined, UCB will spend between $30,000 and $45,000 to conduct an audit of the buildings that house the following: 1) classroom and service space and 2) research labs and service space. The audit will result in a one-page building profile that will include the number of classrooms/service space within the building and the assignable square footage for that purpose and the research/lab service spaces and the assignable square footage. This will update the classroom utilization figures for the campus. The audit is proposed to incorporate the number of vacant rooms in the buildings and the related assignable square footage, the year the building was constructed, its general condition and the academic units housed in the building.

This is a significant attempt to accommodate the information need in this arena where most of the current data for non-centrally-scheduled facilities is self-reported. However, staff would suggest that CCHE staff be involved in one or more of the assessments to better address potential questions on how it was completed by Boulder campus staff and that the audit incorporate a listing of other building uses. The listing does not require measuring administrative/office or storage space, but would enhance the information in the audit. The audit should also include total gross and assignable square footage figures.

This project will address three issues:

1. The actual class/lab/service space available on campus for centralized purposes and its utilization
2. The departmental class/lab space available and its utilization
3. Confirming the institutional space utilization modeling that concludes in the initial plan that UCB cannot meet its existing classroom and laboratory space demands

The proposal is a legitimate alternative to the initial campus-wide building-by-building assessment considering the cost estimated for the project to accomplish the task with existing staff. However, staff would note, the assessment proposed does not include research facilities and a number of projects proposed for the lifespan of the master plan are research facilities. Discussions should continue with UCB planning staff to develop a proxy for an on-site building evaluation of research space allocation and availability to determine whether that information base can be established over a longer period of time.

The space utilization review is a significant tool for both UCB and the Commission in assessing the institutional growth for the future. However, reiterating that significant enrollment growth is not expected for any Colorado public institution in the next five-year period, the institution will complete construction and renovation of 1.892 million gross square feet of space in its plan through 2008.

The Commission should encourage UCB and the Board of Regents to continually assess the "optimal" size for the campus and its growth patterns. No update of this master plan should be brought to the Commission that has not incorporated that discussion and outlined various options.

Controlled Maintenance Issues

Maintaining its existing building inventory and accommodating the addition of new space with operational and maintenance costs is a continuing issue for UCB. Its square footage under roof is increasing substantially and unless it commits additional internal resources to its maintenance backlog, that backlog will continue to grow.

Like most institutions, UCB relies heavily on the state Controlled Maintenance Trust Fund appropriations to upgrade and maintain its existing general fund buildings. In the supplement to the master plan, UCB provided three backlog scenarios for review.

In the first scenario growth of the backlog remains static through 2008 (assumes 3% annual plant growth, 2% backlog deterioration, 1% new deterioration and a 3% inflation factor). That leaves a backlog of $115,170,336 beginning in 1999. UCB committed $9,702,700 to that backlog in 1999 (one-third institutional resources, two-thirds state funding). In the scenario, the backlog increases to $151,293,750 (up 31%) by 2004 and to $198,130,289 (up 72%) by 2008.

In the second scenario, UCB projects the annual expenditure needed to maintain the backlog at its current level – the $115,170,336 figure – through 2008:

2001 -- $16,007,918
2002 -- $16,200,845
2003 -- $16,660,176
2004 – $17,177,905
2005 -- $17,821,453
2006 -- $18,364,013
2007 -- $19,108,793
2008 -- $19,930,452

The scenario clearly shows a need for increased resources to avoid losing ground during the lifespan of the plan.

In the third scenario, the supplemental information projected what funding level annually would need to be committed to reduce the backlog over the same timeframe. Boosting the annual deferred maintenance commitment to $18,202,700 per year through 2008 would actually reduce it to $104,325,884. However, it would rise slightly to $104,404,492 and continue to rise thereafter if all assumptions made in the scenarios continue unchanged.

Plans for construction of significant non-general fund space (research/administrative) could alter those assumptions further. As more new space is added to the campus, maintenance of the older space is crowded out of budgets to provide for general operational costs of the new space. This is not just a problem for UCB, but also a growing problem facing all Colorado's higher education institutions.

However, the scenarios indicate UCB officials are cognizant of the growing need to build more institutional resources into the campus budget for deferred maintenance. Given the uncertainty of state capital resources and the impacts of Amendment 23 (K-12 funding initiative) on the availability of Controlled Maintenance funding, UCB needs to readdress its financial commitment to this facility area.

South Campus Development

The institution has submitted an amendment to the master plan restricting development on the South Campus to recreation and athletic facilities. Although generally the uses are

fields, there are some physical facilities proposed, including an indoor tennis facility, soccer and track and baseball facilities, including locker facilities.

Programs the institution intends to incorporate in South Campus development include women's softball, men's baseball, competition women's soccer, soccer practice fields, outdoor competition tennis courts and an indoor tennis facility. Recreational athletic uses include rugby, lacrosse, soccer, field hockey, flag football and ultimate Frisbee, a "ropes" obstacle course and playing fields for the listed recreational sports.

UCB points out the relocation of the existing tennis courts will be required to construct the new law school. UCB agrees relocating to the East Campus is feasible, but does not view that as permanent. Instead, UCB staff believes the only permanent home for the tennis courts and indoor facility is the South Campus, stating it is not an appropriate use for the East Campus. CCHE staff have seen no substantive information that would prove or disprove that contention.

However, CCHE staff would agree that a typical allowable use for floodplain land is for parks and athletic field uses. However, staff would disagree that UCB has provided sufficient information to conclude that any permanent structural facilities should be built on the South Campus.

The institution believes the South Campus will allow it to reinstate some programs that have been discontinued, citing baseball as one such sport to be restored. UCB also contends the existing playfields are over used and additional fields will allow better maintenance of all fields and better overall condition of the fields.

UCB contends it intends to offer local school districts and the Boulder community the opportunity to share use of the facilities it plans on the South Campus. A total of 47 acres of the property is clearly within the flood plain, although flood plain studies are incomplete.

Without those studies, determination of what land – if any – is feasible for structural development is not possible. While the institution is working with the Urban Drainage and flood Control District, Boulder County and the City of Boulder on flood retention issues, these remain unresolved. Finally, a South Boulder Creek flood mitigation plan is not completed and homeowners in the area have objected to several proposals.

In the supplemental planning document, UCB contends the 1.5-mile distance of the South Campus is not a potential problem for recreational uses and is actually common among other institutions.

UCB in amending the master plan clearly indicates however that its decision to focus on athletic uses is not long-term:

> "During the short-term, CU-Boulder expects to use the property primarily for intercollegiate athletics facilities, recreational fields, pedestrian and bicycle trails, grazing, storage and a cross-country running course. Outdoor research projects may also occur at CU-Boulder south, for example those related to plant ecology and environmental biology . . .. Minor spectator facilities may be included, but the major spectator facilities, such as the stadium, will remain on the Main Campus. Compatible scheduling of the facilities for community recreation will be considered."

The initial master plan submission does consider East Campus as potential sites for recreational uses. This amended submission, however, appears to foreclose that discussion. A subsequent amendment was not made to the East Campus plan elements to reflect that no recreational uses are planned for that area. Thus, both campuses segments contain references to recreational/athletic facility development potential.

Housing Development

Housing for students is a primary factor in the conditional approval originally recommended by CCHE staff for the UCB master plan. Questions about the speed with which the campus intended to address significant shortages of on-campus residential units and faculty housing needs are addressed in supplemental information provided by UCB.

UCB contends the city's questions about how housing might be owned or constructed resulted in delaying a 1996 Request for Proposals (RFP) to create additional housing in Williams Village. The resulting discussions developed a joint campus-city housing strategy. In the interim UCB completed a master plan for Williams Village, the primary residential location for the campus. It completed a market analysis in October 2000 and a financial analysis on December 2000. The draft master plan for the site began the campus review cycle in January and final review of the document is anticipated this month. If approvals result from all entities, including CCHE, the institution will begin Phase 1 Infrastructure contract negotiations in April 2001. CCHE has not yet received the documents for review.

Clearly UCB has a timetable (Attachment D) for addressing its housing needs. However, the timetable outlined anticipates occupancy of the first phase in the summer 2003. Second phase occupancy would not come until 2008.

Staff had recommended that any new project approvals for UCB not proceed until housing issues were clearly addressed. The timetables proposed address some concerns. However, UCB needs to ensure that its focus on this important aspect of student living is maintained.

The university is considering public-private options in providing the housing incorporating a variety of scenarios. It contends, however, that the city of Boulder has

potential concerns with this approach that must be resolved. Neither entity agrees on demand and timing. However, the institution is working to resolve the issues. Its focus is on ensuring that freshmen housing needs are met by allocating 80% of the existing residential units for their use.

Administrative Technology Issues

Supplemental information addresses the issues raised concerning student services, technology use in this area and the option chosen by UCB to better provide those services. The master plan had referred to the UCB Student Odyssey Project. Begun in January 2000 just as the plan was being completed, the project resulted in a long-term solution to student service delivery issues raised in the master plan.

Centralizing services in a single facility was the option discussed in the master plan. However, other alternatives subsequently have provided a different direction for the Boulder campus. In fact, renovation of a research building on East Campus to administrative space freed significant space on the Main Campus when those functions were moved.

The Odyssey project resulted in a reassessment of student service delivery options. To address the departmentalized service issue that results in students moving from one to another office and becoming frustrated when specialists are unable to address their questions, the campus re-evaluated how these services are provided. It has opted to occupy several of the areas vacated by the administrative function move to East Campus by "general" information service centers.

These smaller, less specialized service centers are designed to provide students with one-stop service delivery. Using web-based systems that allow students to personally access many individual records and files for common transactions, the combination of one-stop centers and the Personal Look Up Service (web service) provide more current information and more readily accessible answers for students.

The project actually has resulted in elimination of the $20 million student services building originally proposed for the central campus to allow students to go from one office to another within a single building in their search for answers.

UCB officials believe the alternative actually provides better, more efficient service delivery to the students than the initial centralization in a new building would have provided.

Staff would agree. UCB should continue to focus on how to better deliver these services focusing on technology access and information delivery in this manner.

Technology Plan Review

The five-year technology plan submitted as a supplement to the document was implemented beginning in August 1998 and is more than halfway through the timelines reported. The staff review indicates the plan is comprehensive in terms of how technology should be used in most areas of the institution. It incorporates a step-by-step process to accomplish plan goals, a factor that should make its update easier to accomplish. The checklist approach will allow progress to be tracked in the various elements of the plan.

Covered areas include computers, computer labs, networking, user support, technology-equipped classrooms, access for disabled students, library and information system technology and administrative systems.

However, the plan does not focus significant attention on the academic integration of technology – distance learning and the instructional use of technology. Since teaching is one of the central missions of UCB, this gap is significant in terms of long-term planning efforts. UCB, however, is not alone in its lack of documentation of its goals and efforts in this arena.

Staff believes that while instructional computer use is mentioned in both sections 7 and 8 of the technology plan, the discussions are brief and do not address the long-term development of this aspect of the university. On-line course delivery, its development costs, strategies for institutional development of on-line degrees and an assessment of priorities is missing from the planning document.

While the document provides aggregate dollars for various components of the plan, it does not identify which projects "in progress" have committed resources and what portion of the aggregated funding listed accommodates the uncompleted portions of the plan. Individual costs were not assigned in many areas of the plan.

The funding premise is that all IT expenditures should be considered operational versus capital funding, but the fact that technology infrastructure – some of which can legitimately be considered a capital expenditure – is included leaves a question on that issue. UCB submitted a significant technology infrastructure plan for capital funding this year, a decision at odds with its plan assumptions.

Integration with facility planning is incorporated in the technology plan only where discussions of telecommunication enhancements and integration of technology within new and renovated building projects is discussed. The plan focuses on funding through "one-time" capital investments. However, in this arena these investments are unlikely to fall in that realm. In fact regular replacement of infrastructure and operational technology as new developments take place are more likely the norm.

UCB's involvement of teams in developing the plan, its strategic assessment of information systems and its step approach to setting forth its objectives are well done. However, the next iteration of the plan should incorporate instructional uses, a distance

learning strategic assessment, more definitive cost analyses and a big-picture assessment of the institutional resources committed and the projections for the future resources it will need to accomplish the goals. As a final note, UCB is a first-tier research institution and its technology plan should integrate a strategic vision for cutting edge technology and development of that technology (Internet 2, for example).

The on-line strategic plan is particularly important when discussing facility planning. On-line learning requires different infrastructure. Renovation and construction decisions will be made very differently viewed in the context of a strategic plan that incorporates both physical facility planning for academic needs and technology planning for on-line academic needs.

In a final technology issue addressed by the additional information to the master plan, the campus addressed the question of spending for faculty training within the annual UCB operational budget allocation of $36 million for technology spending.

Specifically, the campus allocates $2.7 million annually for this purpose: $700,000 to campus and school/college academic technology coordinators, $650,000 to a faculty computer program, $650,000 toward the humanities building technology experimentation center, $300,000 to classroom technology equipment, $200,000 to media production support, $100,000 to a faculty teaching excellence program and $100,000 to the on-line course tool support.

Graduate Student Program Growth

Initial staff review of institutional enrollment assumptions used as the foundation for the master plan indicates a predicted growth in graduate students over the lifespan of the plan. Staff questioned the ability of the institution to achieve this goal since it was similarly a goal of the 1990 plan and enrollments in many graduate programs actually declined in that timeframe.

Responding to the issue, UCB submitted a supplemental summary of its December 1999 review of graduate mission and how it would grow.

The campus intends to pursue growth in its new professional degree and certificate programs as well as increasing financial aid options to attract more teaching and graduate assistants and provide expanded graduate appointment opportunities in other disciplines. It points to its increase in professional certificates within Engineering, a certificate program in “Interpreter Education” within the Speech and Language and Hearing Sciences program and the addition of a Pro-MBA degree within the college of business as examples of expanded student options. UCB points to these efforts to serve new markets as its likely base for increasing graduate enrollment.

Improving financial support for graduate students is a significant step in attracting students within some lower-enrollment programs. UCB intends to combine its sponsored-

research program opportunities to outstanding graduate students. Stipends for these students are eligible for indirect cost reimbursement, off-setting the cost of tuition-related financial aid. Departments will receive incentives to add graduate teaching assistants or graduate part-time instructors. Incentives are expected to be $2 million annually. UCB also hopes to see additional state support for graduate funding targeted to offset costs of this program long term.

Graduate enrollments at Boulder have declined 10% between 1991 and 1999. That rises to 12% if Business and Law school enrollments are incorporated. Some departments have actually seen enrollment growth in the timeframe, while others have declined significantly. Capacity to handle growth in graduate programs is available in most departments.

The internal committee recommended a number of student-centered service-oriented changes to attract and retain graduate students, including dedicated admissions officers, a one-stop Graduate School Center, and other similar initiatives that focus on a more centralized approach toward the graduate admission process. The committees recommended expanded academic initiatives and concentration on pursuing international and diversity programs to enhance graduate enrollments. Expansion of graduate student involvement in the UCB teaching mission is also recommended.

Staff concludes the additional information show a significant campus effort to address how UCB will achieve its increase in graduate enrollment. However, there are some options that UCB should continue to explore more fully. Combining web-based degree opportunities with concentrated on-campus experiences is a technique that appears to bear fruit at other major institutions. The post-degree certificate programs bring the industry response efforts of the community college system to the graduate arena allowing the quick-response approach to training needed for cutting edge technology in high-demand professions.

Cooperative program efforts with the state's four-year institutions to offer concentrated off-campus and on-line combination graduate opportunities should also figure in the institutions planning for graduate enrollment.

Other Issues

The plan supplemental documents address the issue staff raised concerning UCB's policy for taking centralized classrooms out of the system and converting centralized classrooms to departmental use. Within the past five years, UCB has taken 11 such classrooms out of its inventory, converting them to other uses or razing them. An additional seven classrooms were temporarily removed from the pool during renovations and 21 were added to the campus pool for a net increase of 10 in the time period.

UCB provided staff with background on its classroom use committee and its process for decommissioning classroom space. The committee considers college and department

requests to return centrally scheduled classrooms to local scheduling if the rooms are scheduled at least 37 of the 39 periods between 8 a.m. and 5 p.m. Monday through Friday. Uses allowed are regularly scheduled classes, labs and recitations. Uses may not include department meetings or colloquia. These rooms revert to the central pool evenings, weekends and in the summer. Departments must provide a schedule of uses.

The committee considers these and all related issues, including classroom addition planning. All decisions are reviewed by the four vice chancellors relevant to space reallocation and the impact on dedicated classroom uses. This process has become more important as administrative functions previously in Main Campus space have moved to the East Campus facility.

Attachment B, as requested by the Commission, lists the supplemental information referencing the existing capital fundraising for facilities that are partially or totally cash-funded in the plan. It provides a break down of debt financing where that is also a funding element and a status report of the funding already in hand for each project.

Research Funding

In the initial staff analysis questions were raised concerning research growth projections, the likelihood those projections would be met as outlined in the master plan and the relevant decisions to address research space needs.

The supplemental submission provides a chart (Attachment C) for review outlining the various federal research funding sources and UCB's anticipated growth from each funding resource through 2006.

However, the institution also points to external funding sources – such as the recent gift for adaptive product research to the system – that will enhance the federal grant expectations. Staff concerns center less on how research facilities will be funded than with the campus overall plan for integrating its research facilities with its teaching facilities.

UCB uses the Kentucky model for research facility needs at 700 square feet of space per $100,000 in research funding. Its existing baseline would be 1.2 million square feet of research space. However, the institution lacks a concrete inventory of its research facilities against which to measure its needs. As earlier outlined, UCB, like most institutions, sees research efforts ebb and flow. As one grant expires, a new one takes its place. The need for space grows as the broader pool of funding – requiring office space for research assistants and other staff – grows.

Given the single gift recently announced, staff's view that the campus needs to re-examine its research facility location policy is even truer.

The shuttle system will make the East Campus more accessible. The institution should seriously consider incorporating both academic and research needs in available space on the East Campus and not simply foreclose the option because Grandview is closer. Limiting itself to the core and Grandview box may accommodate short-term goals, but it does not necessarily meet long-term goals

Research employment growth is projected at 28.2 percent over the 10-year plan period. The supplemental information indicates that parking for new students and these new employees will be on the East Campus once the shuttle is operating. Locating their offices on the East Campus as well eliminates some of the intra-campus transit issues.

Staff continues to believe that UCB has locked in its view of the East Campus and its future development in an old model that has less flexibility. A vision for the East Campus outlined in the plan does not incorporate it well with the other campus sites. As stated earlier, this planning remains the weak link. The Commission should encourage a broader assessment of this significant area as future development plans are brought forward.

As stated initially, while increasing densities on the Main Campus and Grandview area are not inherently bad ideas to accommodate future growth, it does not seem appropriate to leave large areas of the East Campus vacant or underutilized at the same time. Looking at the document in its entirety, rather than at the planning for each campus site, that is the current result.

Staff's initial assessment concluded UCB could accommodate some of its combined research/academic goals by relocating specific programs and/or departments to the East Campus where significant space is available and parking and transportation problems less acute. The supplemental information has not altered that opinion.

Historical Preservation & Maintenance

Staff believes the supplemental information does not address fully concerns related to the fundamental assumptions UCB uses in the plan relevant to maintaining historic structures and long-term maintenance. The plan does not incorporate any timetables to renovate existing buildings.

It does not provide an assessment of building conditions for existing historic or non-historic facilities. Some of this data will result from the inventory discussed above where the facilities are used for classroom or laboratory purposes.

Long-term maintenance issues – outlined above in this analysis – point to the need to have a comprehensive plan to reduce the maintenance backlog that does not rely on state funding. In fact, continued reliance on the trust fund for two-thirds of the deferred maintenance funding will only put the institution further behind. Unlike other institutions, the UCB campus has a significantly larger inventory of older buildings that need frequent attention to maintain their usefulness and extend the buildings' life.

In a broader perspective, the Commission may want to consider discussions with the state Capital Development Committee to assess how the legislature and the executive branch might work together to refocus how deferred maintenance is addressed. Staff believes this issue becomes even more important as institutions deal with the operation and maintenance costs added to their budgets for the facilities now under construction. These new facilities add to the problem in the long term.

While the Controlled Maintenance Trust Fund created in 1992 by the General Assembly is designed to aid all agencies in meeting the most urgent system replacement needs, the annual appropriation from this fund is not sufficient to accommodate UCB system replacement needs – or higher education needs in the aggregate.

IV. STAFF RECOMMENDATION

The supplemental master plan information has significantly addressed concerns staff raised in the initial assessment.

Staff would alter its recommendation given the supplemental data to approve the Master Plan but would suggest the Commission condition approval of the South Campus revisions.

Planning for the East Campus continues to lack depth in staff's view, boxing the institution into continuing its past assumptions and limiting its flexibility. How UCB integrates its cash-funded space with its general-funded space is of concern to the Commission. Its use of its land resources – limited by its setting – is also a concern.

Staff recommends approval of the UCB Campus Master Plan 2000 based on the following recommendations:

- **That UCB proceed with its facility utilization review based on actual classroom/lab space available and used for that purpose both within its centrally-scheduled classroom system and its departmentally scheduled academic/lab system submitting the results to the Commission and the Regents in June 2001. The additions suggested to the UCB outline by staff in the analysis should be incorporated in the assessment.**
- **That UCB proceed with planning and construction on the Grandview property pursuant to the agreement negotiated with the City of Boulder and the amended master plan submitted for this area.**
- **That the Commission grants South Campus development approval only for non-facility athletic uses. When flood plain studies, environmental studies and flood mitigation efforts are complete, the campus may bring forward a plan amendment that allows other athletic facility uses involving structures. Until this information is available for review, assessment of any facility construction is premature. The plan supplemental information limits the athletic uses to the**

lifespan of this document. Insufficient information exists to evaluate other potential uses and the approval should clearly limit that option.

- **That the institution continues to develop a more comprehensive strategy for addressing its maintenance backlog and its historic preservation goals.**
- **That the Commission monitor the progress on the housing unit timetable set forth in the supplemental data to ensure progress is being made as other projects are brought forward.**
- **That as its technology plan is updated, the campus present a strategic assessment of its integration of technology in on-campus classrooms, its long-term goals in this arena and a strategic plan for its on-line growth and how that plan integrates with facility needs for the future.**

Appendix A

STATUTORY AUTHORITY

By statute, the commission must review and approve a facilities master plan for each institution. C.R.S. 23-1-106 (3) reads:

> *The commission shall review and approve master planning and program planning for all capital construction projects of institutions of higher education on state-owned or state-controlled land, regardless of the source of funds, and no capital project shall commence except in accordance with an approved master plan, program plan and physical plan.*

CU-Boulder Campus Master Plan
Proposed Capital Projects as estimated in 1999

Project	Program Plan?	Funded?	Added GSF	Added ASF	Renov. GSF	1 - 5 Years - Total Project Costs	6 - 10 Years - Total Project Costs
Academic Projects							
TIER 1							
Humanities/Woodbury	x	x	59,000	36,000	13,000	$15,912,000	completed
Ekeley East Renov.	x	x	0	0	13,000	$2,279,000	completed
Former Geology Bldg.Renov.	x	x	0	0	55,000	$6,012,000	underway
Admin.& Research Ctr- East Campus (40% for Research)	x	x	0	0	72,000	$2,240,000	completed
Enviro. Engineering Renov.	x	x	3,000	3,000	10,000	$2,134,000	completed
Discovery Learning Center **(4)**	x	x	45,000	30,000	0	$15,258,000	underway
Porter Biosci.Renov. Ph. 3-D	x		0	0		$6,274,000	underway
Hunter Demolition for ATLAS	x		(52,000)	0	0	$900,000	underway
ATLAS - New Bldg.	x		66,000	42,000	0	$26,530,000	in design
Law School Building	x		160,000	108,000	0	$37,350,000	in design
Business Renov./ Addition	x		54,000	36,000	36,000	$23,790,000	in design
Comm Infrastructure	x		0	0	0	$10,000,000	current yr request
TIER 2							
Grandview Demol. & Renov.			(30,000)	(20,000)	7,000	$1,500,000	
Grandview Commons			30,000	20,000	13,000	$15,000,000	
Grandview Research Bldg			75,000	41,000	0	$26,200,000	
Fine Arts Bldg.			159,000	114,000	0		$37,500,000
Misc. Academic Renovations			0	0	100,000		$30,000,000
Physics "H" Addition/Renov.			80,000	50,000	40,000		$40,000,000
JILA Addition			15,000	10,000	0		$4,500,000
Research Park Bldg(s).			50,000	33,000	0		$28,000,000
Engineering Center Additions			75,000	50,000	0		$30,000,000
Journalism Bldg.			45,000	30,000	0		$17,000,000
Norlin Library Renov.			0	0	330,000		$25,000,000
TIER 3							
Grandview Research Bldg			75,000	41,000			$26,200,000
Carlson Renovation			10,000	6,000	56,000		$22,000,000
Total Academic Projects			**919,000**	**630,000**	**745,000**	**$191,379,000**	**$260,200,000**

CU-Boulder Campus Master Plan
Proposed Capital Projects as estimated in 1999

Project	Program Plan?	Funded?	Added GSF	Added ASF	Renov. GSF	1 - 5 Years - Total Project Costs	6 - 10 Years - Total Project Costs
Service Projects							
TIER 1							
Admin. & Research Center East Campus (60% for administration)	x	x	0	0	108,000	$3,360,000	completed
EH&S Addition	x	x	16,000	10,000	1,000	$3,990,000	completed
UMC Renovation	x	x	52,000	33,000	130,000	$23,000,000	underway
TIER 2							
Koenig Alumni Ctr.Addn.			17,000	11,000	1,000		$4,000,000
CU-S. Civil Infrastructure			0	0	0		$10,000,000
Utility Generation			0	5,000	0		$75,000,000
Grounds/Distribution Demolition/Relocation			(58,000)	(56,000)	0		$200,000
Civil Util. Infrastructure			0	0	0		$10,000,000
TIER 3							
FM/Distribution Building			150,000	100,000	0		$25,000,000
Misc. Service Renovations			0	0	30,000		$3,000,000
Transit Ctr.			2,000	1,000	0		$6,000,000
Grandview Parking Structure			0	0	0		$18,200,000
Total Service Projects			**179,000**	**104,000**	**270,000**	**$30,350,000**	**$151,400,000**

CU-Boulder Campus Master Plan
Proposed Capital Projects as estimated in 1999

Project	Program Plan?	Funded?	Added GSF	Added ASF	Renov. GSF	1 - 5 Years - Total Project Costs	6 - 10 Years - Total Project Costs
Athletics and Rec. Projects							
TIER 1							
Folsom Field Resurfacing		x	0	0	0	$2,600,000	completed
Folsom Scoreboards	x	x	0	0	0	$3,960,000	completed
Folsom Lighting	x		0	0	0	$825,000	
Tennis Cts. Reloc.			0	0	0	$650,000	
TIER 2							
Athletics Fields & Courts - CU-Boulder South			0	0	0	$1,460,000	$3,980,000
Fieldhouse and Parking			150,000	120,000	0	$47,800,000	
Recreation Fields			0	0	0	$500,000	
Stadium Improvements			175,000	140,000	22,000	$40,300,000	
TIER 3							
Total Athletic and Rec. Projects			**325,000**	**260,000**	**22,000**	**$98,095,000**	**$3,980,000**

CU-Boulder Campus Master Plan
Proposed Capital Projects as estimated in 1999

Project	Program Plan?	Funded?	Added GSF	Added ASF	Renov. GSF	1 - 5 Years - Total Project Costs	6 - 10 Years - Total Project Costs
Housing Projects							
TIER 1							
Housing Renov. Ph. I - III	x	x	0	(8,000)	200,000	$30,726,000	underway
Will Vill Infrastructure			0	0	0	$3,300,000	in design
Will Vill New Housing, Ph. I			150,000	102,000	0	$23,000,000	in design
TIER 2							
Will Vill New Housing, Ph. II			120,000	82,000	0		$19,000,000
Will Vill Faculty/Staff Housing			102,000	86,000	0		$18,000,000
Housing Renov. Ph.IV - VIII	x	x	0	(8,000)	300,000		$25,357,000
TIER 3							
Co-Op Housing			5,000	4,000	0		$1,200,000
Will Vill Multi-Purpose Ctr.			60,000	36,000	0		$19,000,000
Total Housing Projects			**437,000**	**294,000**	**500,000**	**$57,026,000**	**$82,557,000**
TOTALS - ALL PROJECTS			**1,860,000**	**1,288,000**	**1,537,000**	**$376,850,000**	**$498,137,000**
Total Cost (1-10 years)							**$874,987,000**
Total Cost if 75% realized							**$656,240,250**

NOTES:

(1) GSF (gross square footage) and ASF (assignable square footage) are approximations rounded in thousands

(2) Estimated costs are FY1999-2000 dollars, rounded in thousands

(3) 1-5 years is FY1998-99 to FY2002-03; 6-10 years is FY2003-04 to FY2007-08

(4) Includes a $1.4 million supplemental request for FY2001-01 in FY 1999-2000 dollars.

University of Colorado at Boulder
Status of Cash-Funded Capital Projects with Gifts (FY 1997 - FY 2006) (3)

			Cash-Funded Sources				Status of Gift Funds		
Project Name	**Total Project Cost**	**Cash-Funded Budget**	**Gifts/Private Contributions**	**Debt Financing**	**Federal Funds**	**Gifts/Private Contributions Target**	**Gifts/Private Contributions***	**Gifts/Private Contributions Yet to be Achieved**	**% of Gifts/ Contributions Achieved**
ATLAS Center	$29,254,541	$9,092,754	$6,944,351	$0	$2,148,403	$6,944,351	$2,257,065	$4,687,286	32.5%
Business School Renovation and Addition	$25,792,553	$10,123,083	$10,123,083	$0	$0	$10,123,083	$0	$10,123,083	0.0%
Center for the Visual Arts	$44,330,000	$8,870,000	$8,870,000	$0	$0	$8,870,000	$1,028,234	$7,841,766	11.6%
Discovery Learning Center	$15,258,000	$7,450,400	$7,450,400	$0	$0	$7,450,400	$5,615,720	$1,834,680	75.4%
Fieldhouse Parking Structure (1)	$55,110,000	$55,110,000	$16,533,000	$38,577,000	$0	$16,533,000	$0	$16,533,000	0.0%
Folsom Field Improvements	$44,900,000	$44,900,000	$18,900,000	$26,000,000	$0	$18,900,000	$0	$18,900,000	0.0%
Geology Building Renovation	$6,012,478	$2,142,796	$1,600,000	$542,796	$0	$1,600,000	$0	$1,600,000	0.0%
Law School Construction (2)	$38,467,443	$20,467,443	$12,781,443	$7,686,000	$0	$12,781,443	$5,665,896	$7,115,547	44.3%
South Athletic Fields	$6,100,000	$6,100,000	$6,100,000	$0	$0	$6,100,000	$0	$6,100,000	0.0%

* Includes cash in hand, pledges and bequests.

(1) Debt financing to be repaid through parking fees and other auxiliary revenues.
(2) Debt financing to be repaid through differential tuition revenue.
(3) Project cost estimates deviate from Master Plan figures as figures in this cash table include scope and inflationary adjustments.

NOTE: Gift funds are backed by an internal loan from the University Treasury that would be paid back by University reserves.

University of Colorado
Five-Year Projection of Sponsored Programs Funding
Boulder Campus

Agency	FY2000 Actual	% Distr	FY2001E	FY2002E	FY2003E	FY2004E	FY2005E	FY2006E
NASA	$62,497,007	28%	62,561,146	65,251,275	68,057,080	70,983,535	74,035,827	77,219,367
Non-federal	$36,135,522	18%	40,217,880	41,947,248	43,750,980	45,632,272	47,594,460	49,641,022
NSF	$31,837,012	18%	40,217,880	41,947,248	43,750,980	45,632,272	47,594,460	49,641,022
Dept. of Commerce	$27,869,038	13%	29,046,246	30,295,235	31,597,930	32,956,641	34,373,777	35,851,849
DHHS	$24,819,995	12%	26,811,920	27,964,832	29,167,320	30,421,515	31,729,640	33,094,015
Other, Federal	$17,794,954	7%	15,640,287	16,312,819	17,014,270	17,745,884	18,508,957	19,304,842
Dept. of Defense	$13,267,627	4%	8,937,307	9,321,611	9,722,440	10,140,505	10,576,547	11,031,338
Total	214,221,155	100%	223,432,665	233,040,269	243,061,001	253,512,624	264,413,667	275,783,454

Assumptions:

1. The annual rate of growth is according to assumptions used in the Master Plan.
2. The funding distribution is based on average trends from recent years of funding distribution by major funding agency and these averages have been adjusted slightly to reflect current known funding agency information by ABS.
3. Source: Office of Planning, Budget and Analysis

Variable - Annual Growth	**4.3%**	**4.3%**	**4.3%**	**4.3%**	**4.3%**	**4.3%**	**4.3%**

The following tables reflect the UCB efforts to date on resolving the housing issue and the timetable established for completion of the projects.

The campus and community agree that housing for students and faculty is a pressing issue. The campus anticipated increased demand for housing in 1996 by publicizing a request for proposal for additional Williams Village housing. Boulder City Council had concerns about the University's interest in additional housing, which ended up slowing the progress of the study until some of their concerns were addressed. In 1998, the campus participated with the City to develop a Boulder housing strategy that indicated the University should increase the supply of University housing. The University has also completed a Williams Village master plan during this time. The following tables demonstrate the activities that have taken place on the Boulder Campus that further examine the need and development of future housing.

TABLE 1: COMPLETED ANALYSIS

Description	**Schedule**
Evaluation of sites for housing	September 1998
Micro-Master Plan Initiated	January 1999
Micro-Master Plan Completed	November 1999
Master Site Plan initiated	April 2000
Formation of Advisory Group	July 2000
Market Analysis Complete	October 2000

TABLE 2: ANALYSIS YET TO BE COMPLETED

Description	**Schedule**
Completion of Financial Analysis	December 2000
Draft Master Site Development Plan (MSDP) + Program Plan	Jan 2001
Campus Review Cycle for MSDP + Program Plan	Jan 2001
Revise MSDP + Program Plan per input	Feb 2001
Final Reviews – Boulder Campus Planning Commission, Design Review Board, CU/City Steering Committee, Chancellor's Executive Committee, Capital Planning Committee, Board of Regents, CCHE	Feb 2001
Phase I Infrastructure Contract Negotiations	April 2001
Construction of Infrastructure (Est. Cost $3.3 M)	May 2002 – Feb 2003
Phase I Design begins	April 2001
Phase I Construction Complete (Est. Cost $23.0 M)	July 2003
Occupancy of Phase I Apartments	August 2003
Phase II Design	Decision pending results of Phase I
Phase II Construction (Est. Cost $19.0 M)	
Phase II Occupancy	Projected for 2008

TOPIC: **PROPOSED CHANGES TO CAPITAL ASSETS POLICY CONCERNING RENOVATION OF FACILITIES**

PREPARED BY: **JEANNE ADKINS AND LAUREEN FERRIS**

I. SUMMARY

The program plan review process outlined in the Commission's policies lends itself well to assessment of new capital construction. However, its relevance to renovation – particularly extensive renovation and remodeling – existing facilities is less workable. Cost overruns are more likely for these projects than other types of capital projects. Unexpected construction problems crop up for these projects more frequently. To address the issue, staff has evaluated current practice and statute in an effort to determine whether renovation projects should proceed in a different manner.

II. BACKGROUND

Commission policy has treated both new construction and old construction similarly in terms of program plan requirements. The requirements within Policy E that apply to new construction are not applicable to major renovation and remodeling projects.

For example, policy requires an assessment of academic program growth that is quite extensive for both renovations and new construction now. While easily justified when examining whether new space should be constructed, the renovation of existing space assessment is more difficult. Asking the institution to spend resources in this arena when the real reason for forwarding the program plan has less to do with academic program growth than with the obsolescence of the building itself and a need to upgrade the building systems – an ultimate need for every building in a campus inventory.

A second issue – but no less important in staff's view – is the need to have an accurate assessment of costs that is more realistic than past program plan cost estimates for renovation projects.

If you examine past practice, institutions generally are requesting additional funding – sometimes significantly greater – for renovation and remodeling projects. Initial cost estimating is far less accurate on these projects.

III. STAFF ANALYSIS

Renovation and remodeling projects often involve working with the existing exterior of a building. However, frequently the renovation does not just include mechanical system replacement. Technology adaptations for classroom use is just one area where renovations in recent years have become more complex. Adapting old mechanical systems to new technology system needs has resulted in significant costs on some projects.

Another factor contributing to cost overruns in staff's view is the timing of building assessments and third-party reviews of the projects.

While it may be appropriate to wait until a program plan is actually in design stage for a third-party review on a new project, that delay on a renovation project can cost valuable time and result in necessary changes that add to the bottom line cost of the overall project.

In discussing several past examples where these issues have resulted in significant cost overruns – a UCCS project in the current year, a UNC project just being completed, for example – staff believes a separate process for program plan reviews on renovation projects would actually benefit the institutions and provide the Commission and the General Assembly with a more accurate picture of these projects.

In some cases, for example, the Commission might choose not to forward a renovation project because the economics of the project are not justifiable. Current procedures make real assessment of the cost of the projects difficult to achieve.

Internal discussions have resulted in a proposal for a new policy in this area that would involve the following changes to the program plan process for new facilities. First, a building assessment is mandatory in staff's view for any renovation estimated to cost more than $500,000. The greater the extent of the renovation proposed, the more important the upfront building assessment is in the evaluation of the project. Without that assessment staff contend that too many unknowns exist for the Commission to assess whether the project is justified financially.

Cost estimates on renovation of the facility are simply guesses until the building assessment provides the actual information for the architecture and design team to determine what structural changes are necessary. Depending on the age of the building, lack of a thorough upfront assessment can result in failure to build in sufficient resources to mitigate hazardous materials. Unknown site and foundation issues can add to the cost. Finally, the true ability to actually accomplish the desired renovation – particularly if the facility is a historic structure – cannot accurately be determined without this assessment.

Staff believes the institution should invest resources not in a program plan as it would for a new building where it assesses and programs new space, but rather in an in-depth

building condition assessment. That will require a similar financial investment, but targeting this investment in this manner should result in better, more accurate information to determine whether the project should proceed. It should also limit significant project cost overruns.

It will, however, require the institution to have a clear idea of what must be incorporated in its renovation to meet programming needs as it requests the assessment and prepares it for submission.

The policy change would then have all other issues – programming, academic relationships, expansion requirements, etc. – presented to the commission in a concept paper format.

In effect, the institutions would exchange the investment in expansive program plan requirements for these types of projects

Although the policy in its entirety – with the exception of the recently adopted final segment on leases – is attached for context, most changes are reflected in Section 4.

IV. STAFF RECOMMENDATION

That the Commission take the policy changes under advisement until its April 2001 meeting at which time it would consider suggested changes prior to adoption of the revised policy.

Appendix A

STATUTORY AUTHORITY

By statute, the commission must review and approve all facilities program plans for each institution. C.R.S. 23-1-106 (3) and (5) read:

> *(3) The commission shall review and approve master planning and program planning for all capital construction projects of institutions of higher education on state-owned or state-controlled land, regardless of the source of funds, and no capital project shall commence except in accordance with an approved master plan, program plan and physical plan.*
>
> *(5) The commission shall approve plans for any capital construction project at any institution, including a community college, regardless of the source of funds; except that the commission need not approve plans for any capital construction project at a local district college or area vocational school. The commission may except from the requirements for program and physical planning any project which will require less than five hundred thousand dollars of state moneys.*

SECTION III

PART E GUIDELINES FOR FACILITIES PROGRAM PLANNING

1.00 General Provisions and Policies

1.01 State-Level Capital Construction Decision-Making

The CCHE Instruction Manual for Higher Education Facilities Program Planning and Budgeting distinguishes two major phases of state-level decision-making.

A. A Facilities Program Planning Review Phase to determine the appropriateness, necessity, and sufficiency of the project with respect to institution programs, applicable State policies, plans and standards, and consideration of alternative actions and timetables.

B. A Construction Budget Priorities Review Phase to determine the relative urgency and impact of state investments with respect to state-wide higher education system priorities.

1.02 Capital Construction Program Documents and Decision-Making

The Long Appropriation Act capital construction headnote policies define the scope and content of the planning documents required for facility appropriations.

A. Master Plans analyze institution-wide programs, RELATING ACADEMIC PROGRAMS WITH facilities REQUIREMENTS AND TECHNOLOGY OBJECTIVES IN CONJUNCTION WITH, the effectiveness of institution-wide space utilization, and the match between academic program and necessary physical facilities (based on objective standards), and recommend at least a five-year projection of capital construction needs.

B. Program Plans for specific improvement projects analyze the amounts, types, and relative locations of space required AND/OR FACILITY SYSTEM UPGRADES OR REPLACEMENT for current and projected programs (as determined by accepted State space standards), and define program and cost elements.

C. Physical Plans include architectural and engineering services that detail the development stages of the project INCLUDING DIAGRAMMATIC SKETCHES INDICATING VERTICAL AND HORIZONTAL SPATIAL RELATIONSHIPS.

College and university campus facility master plans and facility program plans are reviewed and approved by CCHE, with the technical assistance of the State Buildings Program on matters of construction standards compliance, appropriation compliance, and

operating/life-cycle cost studies INCLUDING SUGGESTED PROGRAMS FOR FUNDING FUTURE CONTROLLED MAINTENANCE REQUIREMENTS.

1.03 General Policy and Capital Construction Decision-Making

Evaluation of Facility Program Plans should be addressed at two levels of decision-making:

A. Governing Boards

- Conformity with institution master plan and academic AND TECHNOLOGY ~~program~~ plans;
- Evidence of relevant educational program benefits;
- Assurances that operating and capital costs are appropriate to educational programming and sources and methods of financing;
- Consistency with Campus 5-year capital improvements program schedule.

B. Commission on Higher Education

- Consistency with CCHE State Master Plan -- role and mission; academic, FACILITY, AND TECHNOLOGY planning goals; state higher education policy;
- Consistency with campus facilities master plan and academic master plans;
- Consistency of space utilization with CCHE guidelines, campus physical master plan space allocations;
- Alternative facilities solutions and life-cycle costs as required by CCHE;
- Appropriateness of source of funds, cost estimate methods, financing implications for life-cycle of construction as required, operations, and maintenance at projected enrollment increments.

Governing boards shall provide documentation with facility program plans to assure the Commission that academic and facilities programming decisions, operating and capital budgeting decisions, and alternative sources of financing have been evaluated at the highest policy levels.

1.04 General Procedures for Capital Construction Program Planning

Facility program plans are the core element of the capital construction decision-making process. They provide full disclosure of specific planned actions, a longer-range context of operating and capital budget decisions, and a schedule for implementation of the space

requirements of educational programs. They are derived from the institution's long-range facilities master plan projections of needs and provide a broad range of specific policy, program, facility, and financing information for approving and implementing a specific capital construction decision.

Each institution of postsecondary education supported in whole or in part by state funds will prepare a specific facility program plan for each of the major projects for which financing will be sought in the ensuing fiscal year, regardless of the source of funds. The Commission may exempt from the statutory requirements of program planning and physical planning specified categories of capital construction in which no project will require more than $500,000 of state funds.[1] Facilities to be financed through the Colorado Postsecondary Educational Facilities Authority must be approved by the Commission and the General Assembly.[2]

Facility program plans must be approved if the projects are to be recommended by CCHE for funding in the ensuing fiscal years. Establishing funding priorities is, however, a separate process from approval of facility program plans.

1.05 Energy Conservation and Controlled Maintenance Projects

Colorado statute[3] does not define energy conservation measures and controlled maintenance purposes as within the scope of capital construction projects that shall be reviewed and approved by CCHE. Proposals for Controlled Maintenance and Energy Conservation measures will be submitted directly to the State Buildings Program.

1.06 Unimplemented Facility Program Plans

Corresponding with a 1982 Commission policy requiring periodic review of facility program plans that are unfunded after the long bill is adopted, the Commission asks that the following conditions be met before program plans are resubmitted for consideration in the next funding cycle:

A. The campus facility staff must submit an executive summary demonstrating the plan meets the following criteria:

- The plan's space use assumptions have not changed, incorporating information on completed new construction and renovation since the original submission;

[1] 23-1-106(5), C.R.S., as amended
[2] 23-15-107(3); 23-15-115(1)(b), C.R.S.
[3] 24-30-13-1(1), C.R.S.

- The plan's education and enrollment assumptions remain valid, reflecting any changes from the previous year in enrollment and degree or program offerings;
- That capital costs remain valid and that any unusual construction issues resulting from the delay have been addressed;
- That new code requirements will be met and that cost estimates are appropriately adjusted to reflect any changes.

B. The governing board has re-evaluated the project and indicated it will retain its original priority or that it has been reprioritized.

If the project remains unfunded three years after its original submission, the governing board will be asked to withdraw the plan and to re-evaluate the project.

2.00 Facility Program Planning -- Document Preparation Guidelines

The CCHE guidelines for the preparation of facility program plans have been coordinated with revisions to the State Buildings Program guidelines for facility program planning by non-higher education agencies. These coordinated revisions emphasize the integration of master plan policies, educational programming and capital facility decisions.

CCHE guidelines address the following categories of capital asset decisions:

- the remodeling/renovation of functionally obsolete space;
- the expansion of an existing facility or construction of all new facilities, or acquisition of real property;
- major instructional or scientific equipment purchases, defined as capital construction, pursuant to statute;
- utilities and site improvements;
- rental of off-campus space for any purpose.

2.01 Application of the Guidelines

The program planning guidelines provide a "point of departure" for judgments about the appropriate scope and content of information needed for a capital investment decision.

Formats provided are guidelines to assist in the preparation and presentation of planning data important to the state-level review and approval of facility program plans. The information upon which the facility program plan and budget decision is based directly affects:

- capital investment funding priorities (CCHE, Governor, Legislature);
- appropriations (long bill); and
- architectural/engineering design and construction (State Buildings Program).

State statutes direct the consistency of architectural/engineering plans with CCHE approved facility program plans.

2.02 Acquisition of Real Property

Acquisition or utilization of real property that is conditional upon or requires expenditure of state-controlled funds or federal funds is subject to the approval of the Commission.[4] The application of the guidelines is as follows:

- Financial Analysis (For Self-Funded, Revenue Bonded, Long-Range Lease Financed Projects or Real Property Acquisition)

  [Note: If the project is a Cash Funds financed facility or is financed through the Colorado Postsecondary Educational Facilities Authority, a financial analysis is necessary, pursuant to CCHE Policies for Self-Funded Capital Construction (Section III, Part Q).]

- **Lease-Purchase Acquisition of Real Property**

  [Note: Lease-purchase agreements to acquire real property from state appropriated moneys, or funds donated for that acquisition purpose, are subject to legislative authorization by a separate bill enacted by the General Assembly (24-82-102, C.R.S.)]

2.03 Exemptions

The Commission may exempt from the statutory requirements of program planning and physical planning any capital construction project that will require less than $500,000 of state moneys.[5] The campus Chief Executive Officer or designee should submit a Request for Exemption and a Capital Construction Budget to the governing board staff and to CCHE staff. The Request for Exemption shall specify the educational program nature and scope of the proposed project, the relationship to the institutional master plan, and the facilities to be altered or constructed. If the project is a part of a phased project to be completed in future years or if it complements or completes an earlier project, the total scope of the project should be identified.

[4] 23-1-106(8), C.R.S.
[5] 23-1-106(5), C.R.S., as amended.

3.00 Facility Program Plan for Capital Construction Projects

3.01 Policy Requirements

All colleges, universities, and other agencies in the Department of Higher Education shall prepare facility program plans as required by CCHE Policies III - Capital Assets, Part E.

Projects or facilities requiring program plans include:

- facilities to be financed using any state capital construction funds, excepting projects defined solely as controlled maintenance and/or energy conservation projects;
- facilities financed through the Colorado Postsecondary Educational Facilities Authority;
- facilities financed by student fees, auxiliary funds, cash funds, research revolving funds, gifts, grants, bequests, or any other sources of funds; and
- acquisition or utilization of real property by lease, lease purchase, or rental that is conditional upon or requires expenditures of state controlled, federal funds, or other funds identified in 2.02 above.

4.00 Description of Program Plan Format Requirements

Preface and Summary

1. Brief abstract of scope, justification, relation to institutional master plan, future considerations, project cost and schedule, suitable for use as an executive summary.

2. Describe process used to develop the facility program plan. Describe the management decisions made by the institution and the governing board that assure the plan is appropriate to current institutional mission and sources of financing.

4.01 Program Information - NEW PROJECTS

1. Description of STANDARD Program PLAN – NEW BUILDINGS, FACILITIES

   A concise statement describing the educational program related to this Facility Program Plan, including educational program objectives and accreditation standards.

2. History, Role and Mission, Unique Program(s)

   A short statement of the educational program history and the relationship to the approved role and mission, and to unique degree programs.

3. Program Needs and Trends

Describe annualized five-year history and campus enrollment projections causing the qualitative and quantitative needs for construction or acquisition of this space. (Appendix: CCHE Table C-2a Enrollment Trends). Emerging and changing enrollment composition and educational requirements should be analyzed and long-range resource requirements developed. Establish a general schedule for accommodating changing conditions.

4. Relation to Academic or Institutional Strategic Plans

Show relationship of this program to institutional academic plan(s) or strategic plan(s).

5. Relation to Other Programs or Agencies

Show the relationship of this program to any applicable federal, state, and/or community program(s)/plan(s).

6. Existing Programmatic/Operational Deficiencies

Describe the programmatic or operational deficiencies that justify the need for this project. This should be coordinated with the enrollment trends. The discussion should establish the relationship of specific educational and facilities space management issues, by organizational unit, to be resolved by the program plan.

7. Program Alternatives

Summarize the findings of the program analyses of alternative teaching modalities, class section size, educational technology, new equipment, off-campus resident instruction and other program delivery factors affecting educational program life-cycle operating costs and space programming for this capital investment decision. Evaluate the educational program delivery alternatives in terms of such factors as cost, quality, and results. Estimate the relative life of the educational program before additional capital investments are likely to be needed.

4.01.01 Facilities Needs

1. Total Space Requirements

Establish existing and five-year space planning assumptions and program size data from curriculum and student load projections and station utilization rates. Space requested should be justified, by category, based on the applicable CCHE guidelines. Should the program planning indicate a

need for modified utilization criteria, appropriate justification should be provided. This analysis should show the total impact of net space utilization, campus-wide.

If the project is only a part of a phased larger project to be completed in future years, or if it complements or completes an earlier project, the ensuing total scope of the project must be fully disclosed.

After detailed space planning has been completed, summaries of space requirements, by program and by space category, should be included in the program plan (Appendix: CCHE Table C-1a Plan Summary, Total Space Requirements and Table C-1b, Summary, New Space Growth). If significant deviations from the Facilities Master Plan occur as a result of this study, the Facilities Master Plan may need revision and reapproval; consult with CCHE.

Provide conceptual floor plan and bubble-diagrams illustrating the interaction and working relationships between and among the different spaces. Summarize the organization of the proposed new spaces by functional areas, spaces shared by different organizational units, and spaces that will be used exclusively by specific organizational units. It is recognized that program plans are early conceptual solutions to the problems described in the plan. In that context, the gross square footage in the final design may be within 5 percent of the gross square footage in the program plan.

2. Unique or Special Features

Describe any unique or special facility features required to accommodate the program. Identify the criteria used to justify these needs.

3. Health, Life Safety, and Code Issues

Describe any facility operational problems, code, or health/life safety deficiencies, which must be addressed at this time.

Sufficient explanation must be given to provide a clear understanding of the necessity (or desirability) of the code and accessibility issues, special features, environmental controls, and security requirements.

4. Site Requirements

Summarize the pedestrian/vehicular access, topography, soils condition, surface and subsurface drainage, vegetation, and utility system requirements

that impact the cost or design of the project. This information may be summarized from the Long-Range Facilities Master Plan.

5. Equipment Requirements

Briefly summarize the fixed and movable equipment to be relocated, replaced and purchased for occupancy of the new facility. List each new movable equipment item having a unit cost in excess of $50,000. Movable equipment items, which are desirable, but not essential to current program accreditation, shall be so identified.

6. Acquisition of Real Property

Lease-purchase agreements to acquire real property from state appropriated moneys, or funds donated for that acquisition purpose, are subject to legislative authorization by a separate bill enacted by the General Assembly (24-82-102, C.R.S.).

~~7. Existing Facilities~~

~~If the project includes expansion or remodeling of an existing facility, include diagrammatic floor plans of the facility (Appendix: CCHE Condition Survey Guideline for Existing Buildings/Renovation of Facilities or facility audit summary). Provide a description of the general condition of the facility. Locate on diagrammatic floor plan(s) any existing fire safety, ventilation hazards, or handicap access deficiencies, etc.~~

~~8. Previous Improvements~~

~~If the project includes expansion or remodeling of an existing facility, describe major prior capital construction and controlled maintenance improvements.~~

~~Indicate which controlled maintenance projects are included within the scope of this capital improvements project. (Appendix: CCHE Schedule C Building Cost Record)~~

4.01.02 Project Description

1. A statement of the intended facility improvements resulting from implementation of the Facility Program Plan, stated in terms of specific CCHE space utilization criteria and applicable codes and standards.

Develop scope of work statements for the physical systems and physical environment requirements to accommodate the program(s), including meeting all applicable standards and codes.

2. INCLUDE diagrammatic plans or sketches ~~may be used~~ to help describe the proposed project.

3. Project Cost Estimate

Show the estimated cost for this project, consistent with the OSPB Budget Procedures. Indicate the methods used to determine cost estimates. Document the cost estimating data source for material and labor costs.

Identify the type and estimated costs of any new and replacement movable equipment needed to operate the program(s) upon completion of this project. Identify the educational program cost effects of delaying the real property acquisition or facility construction time beyond the period considered for initial occupancy.

Identify any changes in operating budget needs resulting from the capital improvement project. Disclose the revenue sources and amounts to annually fund the changes in facility operating costs.

4. Life-Cycle Cost Analyses (when required by CCHE)

Include analyses of life-cycle owning and operating costs for all relevant alternatives considered. The analyses shall be performed according to the methods included in ASTM E917-89, Standard Practice for Measuring Life-Cycle Costs of Buildings and Building Systems. Include all costs for each alternative, not just cost differentials. Show all interest rates, unit costs, terms, capital repair cycles, etc., in sufficient detail to clearly show all assumptions.

5. Financial Analysis

Describe source(s) of funds including capital construction appropriations, cash funds, bond proceeds, gifts or bequests, or lease/purchase arrangements.

For projects that are self-funded, revenue bonded, lease purchased, or lease financed, provide a financial analysis, including interest rates, length of term(s), repayment schedule(s), and source(s) of repayment funds. The analysis also shall include a discussion of the institution's debt structure and the impact of this project on that structure.

If the project is a Cash Funds financed facility or financed through the Colorado Postsecondary Educational Facilities Authority, a financial analysis is necessary, pursuant to CCHE Policies for Self-Funded Capital Construction (Section III, Part Q).

If the project includes receipt of gifts and bequests of money or property which directly or indirectly involves significant ongoing expenditures (23-5-112 C.R.S.), an endowment sufficient to fund such expenses may be required; consult with CCHE for approval of an exception.

It is recognized that program plans are early conceptual solutions to the problems described in the plan. In that context, the final cost estimate after completion of construction documents may be within 10 percent of the cost estimate in the program plan.

At the time the program plan is submitted for funding, all capital construction budget request documents must be completed. See the annual instruction for capital construction budget requests.

6. Project Schedule

Identify the project's relation to or dependence upon other current or future master plan designated capital improvement projects.

Identify the relative urgency for funding the project. Describe the consequences of delayed spending authorization and provide documentation as applicable. This should include a risk management analysis, if applicable.

Estimate the schedule to complete the physical planning, bidding construction, and equipment phases for occupancy. Describe the construction management process that impacts project phasing.

4.01.03 Relation to the Master Plan/Other Projects

Describe the relation of the project to the Facilities Master Plan, academic use zones, space inventory, and space projections. References should be made to the pertinent portions of the master plan. Describe any programmatic elements or space allocations that are at variance with the current Facilities Master Plan.

Describe the appropriateness, necessity, and sufficiency of the implementation of this project on the achievement of specific Institutional Master Plan policy objectives.

Describe how this project relates with other current or previous five-year capital investments in the same programmatic area. Describe how this project fits into the five and/or ten-year capital project projections.

If the educational program to be accommodated is now in a facility proposed to be vacated, briefly discuss plans for that facility and any resultant series of relocations. The proposed reuses or new uses of each facility affected by the educational program should be summarized, including the relationship of such uses to the Facilities Master Plan. When programming an initial portion of a new facility, the basic phasing concept should be explained here. Additionally, provide a conceptual cost estimate for the subsequent series of relocations or proposed reuses.

4.01.04 Facilities Alternatives

Summarize alternate facilities solutions considered, including (as appropriate) lease/rent, real property acquisition, construction, and relocation, with cost analysis conclusions, indicating the best use of institutional or community shared resources. Operating costs, as well as space efficiency, should be considered. Explain contingency plans for operating the program in the event that capital construction funds are not approved.

Construction of a new facility in excess of 20,000 gross square feet should include costs analyses of phased construction, including assumptions about projected cost increases.

4.01.05 Appendices

Other supporting data should be included in the appendix. A map should be included to indicate the locations of the project.

1. Append such supporting documents, as appropriate, to establish approvals from other federal, state, or community agencies having jurisdiction over any aspects of the project. Examples may include hazardous waste management, hazardous emissions, ditch company easements, zoning authorities, etc.

2. Master Space Scheduling Guidelines, Policies, and Procedures (Complete this section if significant additional classroom space will result from construction).

3. Room Utilization Addendum

   This section should detail room scheduling and station utilization rates, by course, as they relate to the facility being programmed. Data showing room

sizes, weekly room contact hours, hourly room use, average section sizes, and percent of station use should be appended.

4. Life-Cycle Owning and Operating Cost Analyses

This section should include the detailed life-cycle cost analyses for all alternatives considered for the project if required by CCHE.

5. Library Projects

For projects exceeding $650,000, additional information is required for the expansion, construction, or the remodeling/renovation of functionally obsolete library space. (Reference CCHE Library Space Planning Tables L-1 through L-9 for analysis format and content.

6. Independent Third-Party Review

Include the report from the independent third-party review required by CRS 24-30-1303(1)(r). This review **MUST** be completed before final governing board approvals of the program plan.

7. Student Demographics (may not be required for projects under $2,000,000 if described in Section 2)

- Enrollment Trends for campus and institution
- Class/Lab Information

4.02 PROGRAM INFORMATION – RENOVATION, REMODEL PROJECTS

1. DESCRIPTION OF BUILDING CONDITION

PRIOR TO THE APPROVAL OF ANY RENOVATION, REMODEL PROJECT, THE INSTITUTION SHALL SUBMIT AN EXISTING CONDITION SURVEY ASSESSMENT COMPLETED BY A QUALIFIED THIRD-PARTY ARCHITECT OR ENGINEER NOT DIRECTLY EMPLOYED OR RELATED TO THE INSTITUTION FOR ANY EXISTING BUILDINGS AFFECTED.

2. EXISTING CONDITION SURVEY ASSESSMENT

WITHIN OR AS AN ATTACHMENT TO THE CONCEPT PAPER OUTLINED BELOW IN SECTION XX.X OF THIS POLICY, INSTITUTIONS SEEKING FUNDING FOR REMODEL/RENOVATION PROJECTS SHOULD INCLUDE AN EXISTING CONDITIONS SURVEY THAT FULLY ASSESSES THE FOLLOWING ISSUES. NOTE, THIS IS A BASIC LIST, AND SHOULD BE MODIFIED AND/OR ENHANCED TO ENSURE FULL DISCOVERY OF THE SPECIFIC BUILDING.

OVERALL SITE SURVEY

INCLUDE ANY EXISTING HISTORIC SITE ELEMENTS TO BE SAVED. LIST ANY SITE CONDITIONS THAT CONTRIBUTE TO THE EXISTING STABILITY OF THE BUILDING AND/OR THAT MIGHT AFFECT THE PROPOSED BUILDING ADDITION. NOTE ANY POSSIBLE ADDITIONAL SUPPORT OR SHORING REQUIREMENTS NECESSARY DURING CONSTRUCTION PROCESS.

BUILDING ENVELOPE

NOTE THE CONDITION AND POSSIBLE RESTORATION NECESSARY FOR THE FOLLOWING: EXTERIOR WALLS, WINDOWS, DOORS, ROOFING, WATERPROOFING SYSTEM AND FOUNDATIONS. IF ANY OF THESE ELEMENTS ARE TO BE PRESERVED AND RE-USED, DESCRIBE THE METHODS NECESSARY TO PRESERVE THEIR CONDITION DURING CONSTRUCTION.

STRUCTURAL SYSTEM

COMPLETE DISCOVERY IS NECESSARY TO DOCUMENT THE EXISTING STRUCTURE. IF NO HISTORIC CONSTRUCTION DOCUMENTS ARE AVAILABLE, AN ENGINEER SHALL REVIEW THE EXISTING STRUCTURE AND ESTIMATE POSSIBLE LOADING CONDITIONS AND THE POSSIBILITY OF THE APPROPRIATENESS FOR THE PLANNED USES FROM A CODE STANDPOINT. IF THE EXISTING STRUCTURAL SYSTEM IS NOT VIABLE, OUTLINE THE BEST METHOD FOR AN ACCEPTABLE SYSTEM (ADDING TO OR REPLACING THE EXISTING SYSTEM). THIS OVERVIEW SHALL INCLUDE A REVIEW OF ALL EXISTING INTERIOR STRUCTURAL ELEMENTS – FLOOR/ROOF SYSTEMS, BEARING WALLS, FOUNDATIONS AND VERTICAL SUPPORT SYSTEMS.

BUILDING SYSTEMS

AN ENGINEER SHALL PERFORM AN EXISTING SYSTEMS OVERVIEW TO EVALUATE THE NEED FOR FULL OR PARTIAL SYSTEMS REPLACEMENT. A COMPLETE SURVEY WITH SUGGESTED ALTERNATIVE SOLUTIONS APPROPRIATE FOR THE PLANNED NEW FUNCTIONS SHALL BE INCLUDED IN THE REPORT, AND SHALL REVIEW ALL SYSTEMS INCLUDING MECHANICAL, ELECTRICAL, PLUMBING, FIRE ALARM AND ANY EXISTING TECHNOLOGY.

INCLUDE DRAWINGS AND PHOTOGRAPHS AS NECESSARY TO FULLY DOCUMENT EXISTING CONDITIONS.

3. PROGRAM PLAN FOR BUILDING RENOVATIONS

SUBMIT A BRIEF CONCEPT PAPER FOR ANY PROJECT THAT INCLUDES MAJOR REMODELING, INCLUDING EXPANSIONS AND/OR ADDITIONS INVOLVE AN EXISTING STRUCTURE THAT INCLUDES THE FOLLOWING SUMMARY INFORMATION:

- AN OUTLINE OF THE ACADEMIC PROGRAM USING THE FACILITY AND ITS INTEGRATION WITH THE INSTITUTION'S ACADEMIC PLAN;
- WHETHER RENOVATION SCOPE INCORPORATES INTERIOR STRUCTURAL CHANGES;
- WHETHER RENOVATION ENCOMPASSES EXTERIOR-INTERIOR SPACE ADDITIONS;

- WHETHER ANY ACADEMIC PROGRAM EXPANSION IS CONTEMPLATED;
- WHETHER ANY NEW ACADEMIC USES ARE CONTEMPLATED;
- WHETHER OFFICE/SERVICE SPACES ARE FOR THE SPECIFIC PROGRAM OR FOR GENERAL CAMPUS USES;
- THREE POTENTIAL OPTIONS AVAILABLE TO THE INSTITUTION TO RESOLVE THE PERCEIVED FACILITY NEED. THESE SHALL BE CLEAR, CONCISE AND PROBABLE;
- WHETHER THE EXISTING MASTER PLAN CONTEMPLATES THE PROJECT AND WHICH NEEDS THE PROJECT WILL MEET WITHIN THE MASTER PLAN DOCUMENT;
- A COPY OF THE FACILITY AUDIT ON RECORD WITH THE OFFICE OF STATE BUILDINGS INDICATING THE FACILITIES CONDITION INDEX OF EACH BUILDING INVOLVED;
- A LIST OF ALL CURRENT CONTROLLED MAINTENANCE PROJECTS OF RECORD WITH STATE BUILDINGS DEPARTMENT FOR THE BUILDING IN QUESTION, INCLUDING AN OUTLINE OF COSTS AND CURRENT PRIORITIES FOR FUTURE PROJECTS AS THEY ARE RECORDED WITH STATE BUILDINGS THAT INDICATES HOW THE CAPITAL PROJECT WILL SAVE OR NOT SAVE IN CM FUNDING. INCLUDE A 10 YEAR HISTORY OF ALL CM EXPENDITURES FOR THE FACILITY;
- POSSIBLE AREAS PHYSICALLY IMPACTED BY ANY PROPOSED REMODEL, RENOVATION OR DEMOLITION AND AN ASSESSMENT OF WHETHER ANY RELOCATION COSTS WILL BE INCORPORATED IN THE PROJECT AS IT PROCEEDS FOR EXISTING OCCUPANTS;.
- IF PROJECT ANTICIPATES TOTAL RE-SURFACING OF AN EXISTING BUILDING OR RESTORATION AN HISTORIC STRUCTURE, SUBMIT AN OUTLINE SUMMARY OF PROPOSED BUILDING MATERIALS;
- A DESCRIPTION OF THE PROCESS DECISIONS BY THE INSTITUTION AND THE GOVERNING BOARD THAT ASSURE THE PLAN IS APPROPRIATE TO CURRENT INSTITUTIONAL AND GOVERNING BOARD MISSION AND INSTITUTIONAL MASTER PLANNING ASSUMPTIONS.
- A PRELIMINARY INVENTORY LIST OF PLANNED SPACES, AND A BASIC DESCRIPTION OF TECHNOLOGIES TO BE INCLUDED AND HOW THEY RELATE TO THE TECHNOLOGY MASTER PLAN.

4. FINANCIAL REPORT SUBMISSION

IN CONJUNCTION WITH THE CONCEPT PAPER, THE INSTITUTION SHOULD SUBMIT A PRELIMINARY PROJECT COST ESTIMATE THAT INCORPORATES ITS REQUEST FOR THE TOTAL PROJECT BASED ON THE BUILDING CONDITION AND ITS ESTIMATED ARCHITECTURAL AND ENGINEERING COSTS FOR THE TOTAL PROJECT. INCLUDE PROJECTED SOURCES OF FINANCING – INCLUDING FUND-RAISING POTENTIAL, GRANTS AND/OR GIFTS ALREADY COMMITTED. ALSO NOTE ANY POTENTIAL HISTORIC PRESERVATIONS FUNDS AND/OR WHY SUCH FUNDING HAS OR HAS NOT BEEN INCLUDED AS A POTENTIAL SOURCE.

5. CONTINUITY OF PROJECT CONSULTANTS

CONSULTANTS SELECTED FOR THIS INITIAL PHASE SHOULD BE CONSISTENT THROUGHOUT THE PROJECT CONTINGENT UPON A POSITIVE PERFORMANCE EVALUATION BY THE INSTITUTION AT THE END OF THE PHASE I PROCESS. THE CONCEPT OF CONTINUITY IS IMPORTANT TO ALLEVIATE DUPLICATION, CREATE MORE OWNERSHIP IN THE PRELIMINARY ASSESSMENT PROCESS, AND REDUCE THE POTENTIAL FOR ADDED COSTS RESULTING FROM DIFFERENT PROJECT VISIONS FROM ONE PHASE TO ANOTHER. IF THE INSTITUTION CHOOSES NOT TO FOLLOW THIS PROCEDURE, AN EXPLANATION SHOULD ACCOMPANY THE CONCEPT PAPER.

Note: No changes in the remainder of this policy are proposed with the exception of renumbering should the above changes be approved, so the remainder of the policy is not printed.

TOPIC: **REVISIONS TO SECTION III, PART D, GUIDELINE FOR LONG-RANGE FACILITIES MASTER PLANNING**

PREPARED BY: **JEANNE M. ADKINS, GAIL A. HOFFMAN AND JEFF RICHARDSON**

I. SUMMARY

Commission staff is forwarding these policy changes to Section III, Part D, Guideline for Long-Range Facilities Master Planning, and the proposed Technology Master Plan policy addition to the Commission for discussion and possible action in April.

The suggested revisions are intended to accomplish the following:

- Better integrate facilities master planning with academic and information technology planning;
- Better integrate facilities master planning with governing board plans;
- Remove all references to enrollment maximums at institutions due to statutory changes;
- Require institutions to draw conclusions from the institutional data that will guide facilities master planning;
- Emphasize the need to improve space utilization before new buildings can be planned;
- Encourage institutions to better maintain and update existing buildings over building new ones when it makes economic sense; and
- Remove outdated references, such as those concerning comparative costs for building multilevel and ground parking lots in 1973.

The revisions are being proposed as a result of staff review of several master plans since 1999. Staff discovered that the master plan documents resulting from the current guidelines failed to indicate the conclusions institutions drew from the compilation of institutional data. The plans also failed to show how facilities plans responded to annual academic updates and information technology planning. In addition, the plans seldom made any reference to how the facilities planning implemented goals and priorities of the governing boards.

Viewed in one way, the Guideline for Long-Range Facilities Master Planning can be seen as advocating construction of new facilities over better utilization and updating of existing facilities. The revisions attempt to correct this by emphasizing better utilization of existing buildings and continued upkeep and updating of existing facilities (when it makes economic sense) before recommending new facilities.

This does not foreclose new construction, but places decision-making on new construction within the broader context of governing board academic objectives and institutional objectives. It balances the need to address new program needs with the state's interest in protecting its existing facility investments.

Other changes are to update the guideline itself, which was last revised in 1987. Therefore, outdated references to the relative costs, circa 1973, of building surface parking lots versus multilevel parking structures were removed, as well as references to maximum enrollments at each institution. Maximum enrollments were removed from statute some time ago.

II. BACKGROUND

The intent of the policy changes was listed in a memorandum given to all representatives at the January 29, 2001, Capital Construction Advisory Committee meeting. Institutional representatives were asked at the meeting to review the master planning guideline and recommend other ways the guideline can be revised to make the resulting facilities master plans more useful to the institutions and to CCHE. To date, no comments have been received.

While the master planning guidelines were being revised, an addition to CCHE policies, on Information Technology Strategic Planning, was being developed. That policy addition, **27.00 - Information Technology Strategic Planning**, also will be before the Commission for action in April.

III. STAFF RECOMMENDATION

That the Commission consider the draft policy changes for possible approval at the April 2001 meeting.

Appendix A

STATUTORY AUTHORITY

The statutory authority for the Commission action in this area is located in 23-1-106 (3) and (4) which read:

> *(3) The commission shall review and approve master planning and program planning for all capital construction projects of institutions of higher education on state-owned or state-controlled land, regardless of the source of funds, and no capital project shall commence except in accordance with an approved master plan, program plan and physical plan.*
> *(4) The commission shall ensure conformity of facilities master planning with approved educational master plans and facility program plans with approved facilities master plans.*

SECTION III

PART D GUIDELINE FOR LONG-RANGE FACILITIES MASTER PLANNING

1.00 Scope of a Long-Range Facilities Master Plan

If a long-range facilities master plan is to be a really useful document, it must be prepared in adequate depth to assure its validity and understandability. Anything less runs the grave risk of having been based upon insufficient knowledge, hasty or FAULTY decisions, and of being so general in nature that incomplete information is presented. Shallow planning is hardly appropriate when one considers the magnitude of tax dollars to be spent on the planning and construction of educational facilities. ~~in the rather immediate future.~~

The following outline presents the basic contents of a comprehensive long-range facilities master plan. Such a plan is divided into two distinct sections--INSTITUTIONAL DATA and the FACILITIES MASTER PLAN. Since educational facilities exist to serve educational need, it is logical that much data about the institution MUST be assembled ~~prior to~~ BEFORE beginning to plan the campus and facilities to be placed on it.

I. Institutional Data

A. General
1. Role
2. History
3. Relationships
a. state system for higher education
b. community or service area
c. GOVERNING BOARD

B. Service Area
1. Geographic
a. boundaries
b. characteristics
2. History
3. Population--present and projected
a. size
b. racial characteristics
c. socio-economic characteristics
4. Economic basis
5. Climate (temperature ranges, precipitation, etc.)

6. Transportation systems
7. Education
   a. Need
   b. Systems existing (PUBLIC AND PRIVATE)
   c. ACADEMIC PLAN AND ITS IMPLICATIONS FOR FACILITY PLANNING

8. DESCRIPTION OF SATELLITE* CAMPUSES
   a. Enrollment—FTE and Headcount
   b. Programs Offered
   c. Locations

   *SATELLITE CAMPUSES ARE THOSE LOCATED OUTSIDE THE TOWN WHERE THE MAIN CAMPUS IS LOCATED

C. Policies
1. Admissions
2. Academic program
   a. general content
   b. degrees
   c. organizational structure (colleges, divisions, schools, department, etc.)
3. Calendar Structure (quarters, semesters, etc.)
4. Community programs
5. Ancillary programs
6. Housing
7. Student services
8. Automobile use and storage
9. Athletics
10. CLASS AND LABORATORY SCHEDULING
11. MAINTENANCE OF EXISTING FACILITIES
12. Other

D. Enrollment Size and Distribution Data (Current~~,~~ AND Phased Growth~~, Maximum~~)
1. Basic enrollment
2. Enrollment distribution by organizational unit
3. Enrollment distribution by local residence

E. Faculty and Staff Size and Distribution Data (Current~~,~~ AND Phased Growth~~, Maximum~~)
1. By functional area
2. By organizational unit

F. Curriculum and Student Load Projections for First Phase

1. Student-credit projections by organizational unit
2. Contact-hour projections by organizational unit and course

G. Building Space Projections by Functional Use Classification and PHASED Enrollment ~~to Maximum~~
   1. Resident Instruction
      a. Classroom and classroom service space
      b. Instructional laboratories and service space
      c. Physical education facilities and service space
      d. Other teaching facilities and service space
      e. Instructional faculty offices and related secretarial, clerical, and office service space
      f. Other instructional space
   2. Organized activities related to instruction
   3. Research
      a. Research faculty offices and related secretarial, clerical and office service space
      b. Other research space
   4. Extension and Public Service
      a. Office space
      b. Other extension and public service space
   5. Library
   6. Administration and General
      a. Office space
      b. Other administration and general space
   7. Physical plant service
   8. Auxiliary enterprises
   9. Non-institutional agencies

H. Outdoor Site Facilities Projections by Functional Use Classification and PHASED Enrollment ~~Phase to Maximum~~
   1. Physical education
   2. Recreation
   3. Intercollegiate athletics
   4. Physical plant
   5. Automobile parking
   6. Other

I. Inventory of Existing Facilities
   1. Campus site
      a. location
         1) in service area
         2) in community
      b. environs
         1) land use, zoning

2) access via transportation networks
3) visual

c. boundaries
d. number OF acres
e. topography
f. subsurface soils conditions
g. building locations[1]
h. circulation systems[1]
i. utility systems[1]
j. landscaping[1] or natural plant growth
k. sign systems[1]
l. outdoor site facilities by functional use classification[1]
1) physical education
2) recreation
3) intercollegiate athletics
4) physical plant
5) automobile parking
6) other

2. Building data by functional use classification[1]
a. diagrammatic floor plan
~~b. exterior photograph~~
c. physical description
d. space inventory by functional use classification, room type, and organizational unit

J. INFORMATION TECHNOLOGY PLAN AND ITS IMPLICATIONS FOR FACILITY PLANNING

K. Recommended Use or Removal of Existing Facilities by Enrollment Phase ~~to Maximum~~ [1]

L. Recommended Construction of New Facilities by Enrollment Phase ~~to Maximum.~~

M. Recommended Construction of New Facilities by Enrollment Phase ~~to Maximum~~

N. CONCLUSIONS FROM INSTITUTIONAL DATA

II. Facilities Master Plan

A. Planning Concepts

[1]Generally not required when planning new institutions.

1. Ideal functional diagrams
    a. nature and relationships of land zones
    b. functional relationships within land-use zones
    c. utilizing the topography
    d. utilizing the subsurface soils conditions
    e. flexibility for growth
2. Land coverage decisions
    a. building density (height and land coverage) with building zones
    b. parking facilities
        1) surface
        2) structures

B. Campus Plans and Supporting Data by Enrollment Phase to Maximum
1. Land perimeter
2. Land use
3. Circulation systems and Vehicle Storage
4. Utility systems
5. Building location
6. Topography
7. Landscape concept
8. Facility staging plan

C. Facilities Construction Time Schedule

D. Facilities Construction Economic Studies and Overall Estimates of Costs

E. Summary

III. Appendix

2.00 Publication of a Long-Range Facilities Master Plan

Since each of the institutions of higher education will ultimately possess completed long-range facilities master plans, the format of the final printed pages should be standardized generally using the outline presented on pages D-1 through D-4, including the lettered and numbered prefixes.

It is suggested that final reports consist of two basic types of volumes:

The FINAL REPORT should be developed for ~~rather~~ wide distribution. It should contain all the basic master plan data including summary tables taken from the WORKING PAPERS. This book should be considered a presentation document and should be designed and printed in a well-organized and usable manner. It should identify in the preface all volumes constituting the WORKING PAPERS.

The WORKING PAPERS should be published in one or more volumes as the supporting documentation in the FINAL REPORT. These papers will be made up of the detailed computations and tables primarily related to the following:

Student-credit production
Contact-hour computations
New building space computations
Inventory of existing facilities

The WORKING PAPERS are intended for limited distribution at the institution and among the approval agencies. They need not be designed and printed at the higher quality level of the FINAL REPORT. Each volume of the WORKING PAPERS should identify in the preface the FINAL REPORT of which it is a part.

Use and storage of the published documents would be enhanced if they were 8-1/2" X 11" in size, bound in three-ring binders. ~~It is suggested that the FINAL REPORT be bound with Plastic bindings and that WORKING PAPERS volumes be bound with "Acco" type fasteners.~~ THREE-RING BINDERS ~~bindings~~ will permit insertion or removal of pages, if necessary, as the campus plan is modified due to its dynamic nature.

3.00 Approvals of a Long-Range Facilities Master Plan

During the preparation of the long-range facilities master plan, informal review and approval sessions are suggested. These reviews should be made by the CCHE staff on the basis of draft material. Reviews should be as follows:

Review 1.

A. General Information
   1. General Role Identification
   2. Admission Policies
   3. General Academic Program Descriptions and Objectives

B. Enrollment Size Determination

1. Phases
2. ~~Maximum~~ (OPTIMUM)

Review 2.

A. Student & Facility Projections and Policies
   1. Enrollment Distribution (and Summaries)
   2. Faculty & Staff Distribution (and Summaries)
   3. Curriculum and Student Load Projections

C. Review 3. Space Need Determination

D. Review 4. Space Need/Space Available Match

E. Review 5. Physical Facilities Master Plan

These information actions will permit planning to be coordinated between the institutional governing board and the commission and will assist in the avoidance of wasted effort since each planning stage may proceed with relative assurance of having a sound and acceptable basis.

The final published document must have the following formal approvals IN THIS ORDER BEFORE ~~prior to~~ becoming official:

- Institution
- Governing Board*
- Commission on Higher Education

FORMAL APPROVAL OF THE FACILITY MASTER PLAN WILL NOT BE SCHEDULED BEFORE THE COMMISSION UNTIL THE PLAN HAS BEEN APPPROVED AT BOTH THE INSTITUTIONAL AND GOVERNING BOARD LEVELS.

*The district community colleges must obtain the approval of the State Board for Community Colleges and Occupational Education.

4.00 Periodic Updating of a Long-Range Facilities Master Plan

A long-range facilities master plan must be developed as a FLEXIBLE framework for campus growth. Its concept must recognize the dynamic nature of education. As enrollments grow and/or as academic programs become more comprehensive to serve the increasing complexity of our society, it is inevitable that campus facilities must change. The long-range master plan must be capable of meeting these changing circumstances. Thus, ABOUT EVERY SIX YEARS ~~at appropriate intervals~~, the long-range plan for each campus must be UPDATED ~~re-evaluated and revised~~ in order to KEEP IT CURRENT ~~maintain it in a current status~~. Minor changes that are

necessary between major revisions might be accommodated through amendment. MINOR CHANGES ARE THOSE NEEDED DUE TO THE REMOVAL OR ADDITION OF ONE OR TWO CAPITAL CONSTRUCTION PROJECTS BECAUSE OF CHANGES IN PROJECTIONS FOR STUDENT ENROLLMENT, FACULTY/STAFF, STUDENT-CREDIT, AND CONTACT-HOUR. Each revision or amendment must receive the approval of the ENTITIES ~~bodies~~ enumerated above.

5.00 Relation to Statewide Plan

The institutional master plan should relate to and be compatible with the Colorado Statewide Master Plan for Postsecondary Education. If the institution should desire to deviate in any way from provisions contained in the state plan, concurrence should be obtained from the Commission at an early point in the institutional master planning effort.

6.00 Institutional Data

~~"A long range facilities master plan should "be started at the beginning."~~ It is necessary for an institution to undergo a complete analysis of its present and future mission, programs, and goals prior to making any attempt to master plan its physical facilities. After all, the facilities must serve the program of the institution. ~~How can they be properly designed before that program is clearly identified?~~ Thus, it is necessary to generate much institutional data at the BEGINNING OF THE FACILITIES MASTER PLANNING PROCESS ~~very outset~~. The general scope of that data is described in a previous section of these guidelines. In following sections, specific table and schedules will be presented to assist in the preparation and presentation of institutional data. As the full range of planning activities is carried out, revisions in these data no doubt will be made. Comprehensive planning should be an interactive process and no data should be prepared which cannot be changed after further analytical work in other areas is carried out. Gathering institutional data is not enough. CONCLUSIONS ABOUT THE INSTITUTIONAL DATA SHOULD BE INCORPORATED. THESE CONCLUSIONS WILL GUIDE THE OTHER MAJOR PART OF THE PLAN, THE FACILITIES MASTER PLAN.

7.00 RELATIONSHIP TO GOVERNING BOARD

EACH GOVERNING BOARD NOT ONLY MUST APPROVE EACH FACILITY MASTER PLAN OF INSTITUTIONS UNDER ITS JURISDICTION THAT IT THEN FORWARDS TO CCHE, BUT IT MUST DO SO BY STATING HOW A FACILITY MASTER PLAN MEETS SPECIFIC GOALS OF THE GOVERNING BOARD AND HOW THE FACILITY MASTER PLAN IS OR IS NOT IN COMPLIANCE WITH THE GENERAL DIRECTION SET FOR THE INSTITUTION BY THE

GOVERNING BOARD. THE GOVERNING BOARD LONG-RANGE PLAN FOR THE INSTITUTION SHOULD BE SUMMARIZED IN THE FACILITY MASTER PLAN, AS WELL AS A BRIEF DESCRIPTION OF HOW THE INSTITUTION'S ACADEMIC OFFERINGS FIT WITH THOSE OF OTHER INSTITUTIONS OPERATING UNDER THE GOVERNING BOARD.

8.00 Academic, Facility, And Information Technology Planning

ACADEMIC, FACILITY, AND INFORMATION TECHNOLOGY PLANNING SHOULD BE REGARDED AS THREE IMPORTANT PARTS OF INSTITUTIONAL PLANNING. STATE-SUPPORTED INSTITUTIONS SUBMIT ANNUAL UPDATES OF ACADEMIC INITIATIVES ANNUALLY TO CCHE. CCHE REQUIREMENTS FOR INFORMATION TECHNOLOGY PLANNING ARE FOUND IN SECTION XX OF THIS POLICY. EACH FACILITY MASTER PLAN SHOULD THEREFORE REFER TO BOTH THE ACADEMIC UPDATE AND THE INFORMATION TECHNOLOGY MASTER PLAN, AND EXPLAIN HOW BOTH IMPACT FACILITY MASTER PLANNING. IN SOME INSTANCES, INFORMATION TECHNOLOGY MASTER PLANS MAY REDUCE THE NEED FOR NEW PHYSICAL FACILITIES BECAUSE OF THE POTENTIAL FOR STUDENTS TO ACCESS CLASSES VIA THE INTERNET OR OTHER MEANS OF DISTANCE EDUCATION. THE LINKAGES AMONG ACADEMIC, INFORMATION TECHNOLOGY, AND FACILITY PLANNING SHOULD BE THOROUGHLY DISCUSSED IN THE FACILITIES MASTER PLANS.

9.00 Tables

Much of the institutional data are to be compiled and presented in a series of tables WITHIN THE WORKING PAPERS SEGMENT OF THE PLAN. The suggested format of each table is established in these guidelines. It should be noted that the sequence of these tables relates to the outline scope of a long-range facilities plan established on Pages D-1 through D-4 of the guidelines. Data contained in each table must be coordinated with data in all other tables so the entire long-range plan will "track from beginning to end." Obviously, data will not necessarily be generated in the specific order of presentation of the tables. Thus, it will be necessary in some instances to prepare tables appearing well into the study in order to complete earlier tables. As an example, it will be necessary to establish the full curriculum by organizational unit including assignment of credit values prior to completing Table B2-c which deals with distribution of the total enrollment (FTE) among the organizational units of the institution.

10.00 Planning Criteria

Presented in Section F are detailed planning criteria to be utilized in the planning process. These criteria are not all together complete and, in some instances, might not exactly "fit" all institutions. They should be adhered to rather literally at the site selection and master planning phases (to the extent of their coverage). Adequate opportunity exists at the program planning phase for refinement and, if necessary, justification of deviation from the guidelines.

11.00 Campus Population

Campus population -- along with educational programs and institutional policies -- is a powerful force in ~~the generation of the form of~~ campus facilities growth. The base population of a campus is the sum of the number of students, faculty, staff, and visitors. This section of the guidelines is directed toward projecting the elements of campus population.

12.00 Enrollment

~~Maximum enrollments have been established for each institution of higher education in Colorado. These figures are contained in Part F of these guidelines. Master plans should be directed toward the ultimate accommodation of these enrollment maximums.~~

~~Some institutions are relatively close to achievement of their enrollment maximums. Most, however, look toward many years of growth before reaching this target. For the growing institutions, it is necessary to project enrollment at several phases between the present and the time when maximum enrollment is attained~~. ~~It is suggested that~~ The first ENROLLMENT PROJECTION interval of the FACILITIES MASTER PLAN, PHASE 1, SHOULD OUTLINE THE EXPECTED ENROLLMENT OVER THE THREE YEARS FOLLOWING THE TIME OF THE YEAR OF THE MASTER PLANNING STUDY. ~~be that which will be achieved over the five years following the time of the year of the master planning study.~~ THE succeeding interval~~s~~, PHASE 2, should be the next three years. THE ENROLLMENT PROJECTION SHOULD TAKE INTO ACCOUNT ~~selected on the basis of appropriate enrollment levels beyond the first five years~~, ~~the particular levels to be selected after evaluation of such factors as~~ (a) the size of the institution, AND (b) the expected ~~rapidity of~~ growth of the institution. ~~, and (c) the maximum enrollment which has been established for the institution. For those institutions that expect to experience a very slow growth, the selection of specific phases should be primarily a function of time (in this case, it is suggested there be three phases--out five years, out ten years, and maximum). Those institutions which expect a more rapid growth should establish specific phases on the basis of enrollment growth primarily, with increments of 2,000 students for institutions with a maximum enrollment~~

~~under 10,000, 3,000 for institutions with a maximum enrollment of 10,000 to 14,999, and 4,000 for institutions with a maximum enrollment of 15,000 or more.~~

Tables B2-a through B2-d presented on the following pages should be adequate to provide needed enrollment data.

13.00 Faculty and Staff

Tables B2-e and B2-f should be used to present summary data on faculty and staff projections. These basic tables should be supplemented with more detailed tables together with appropriate descriptive material that will explain the exact methodology employed in making the projections. The planner will find it helpful to consult the most recent budget recommendations of the CCHE for guidance in making projections. The CCHE budget recommendations contain a great many statistics on college and university staffing which are useful for planning purposes.

TABLE B2-a ENROLLMENT SUMMARY

Maximum Term Enrollment Category	Present Year ___	Phase 1 Year___	Phase 2 Year ___
Headcount:			
Total Headcount			
Full-Time Equivalent: Day: Evening:			
Total Full-Time Equivalent			

NOTES:

a. Maximum Term Enrollment is usually the fall student enrollment due to normal attrition during the academic year. If other than fall figures are used, provide backup data.

~~b.~~ Phase 1 enrollment is normally the projection of enrollment for ~~five~~ THREE years after the year indicated as "present". Phase 2 adds the selected increment of students to Phase 1. ~~and so on until "maximum" enrollment is reached.~~

~~c. Maximum enrollments for the several institutions may be found in Part F.~~

TABLE B2-b HEADCOUNT ENROLLMENT BY ORGANIZATIONAL UNIT AND GEOGRAPHIC ORIGIN
(Associate Degree Level, Baccalaureate Level, Master's Level, Doctoral Level)

Organizational Unit	Present			Phase 1			Phase 2		
	In-State	Out-of State	Total	In-State	Out-of State	Total	In-State	Out-of State	Total
Totals									

NOTES:
a. Data presented in this table should be on the basis of the major field of study of students.
b. One table should be prepared for each degree level offered by the institution.

TABLE B2-c FTE ENROLLMENT BY ORGANIZATIONAL UNIT (PRESENT AND PHASED~~, AND MAXIMUM~~)

Organizational Unit	FTE Students				Student Credit Hour Production														
	Total		Day	Eve	Total			Non-Credit			Lower Division			Upper Division			Graduate (Note c)		
	No	%			Tot	Day	Eve	Tot	Day	Eve	Tot	Day	Eve	Tot	Day	Eve	Tot	Day	Eve
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
Totals		100%																	

NOTES:

a. Organizational unit denotes college, division, school, department, etc. The organizational units presented here should be carried through the departmental level, except in those instances when a college, division, or school is not departmentalized.

b. Data on this table must track with data on Table B2-a. For example, the total of column M on Table B2-b divided by 15 should be the same as lower division day FTE students shown on Table B2-a.

c. Combine Beginning Graduate and Advanced Graduate in the Graduate columns.

d. FTE students equal student credit production divided by 15 in each category (See Section D2).

e. This table must be developed for each enrollment phase indicated in Table B2-a.

TABLE B2-d HEADCOUNT ENROLLMENT DISTRIBUTION BY LOCAL RESIDENCE[a]

Maximum Term Enrollment Category	Present Year	Phase 1	Phase 2
Head Count Distribution			
Single Men:			
College Housing[b]			
Commuting[c]			
Total			
Day[d]			
Evening[d]			
Single Women:			
College Housing[b]			
Commuting[c]			
Total			
Day[d]			
Evening[d]			
Married Students:			
One Student Per Family:			
College Housing[b]			
Commuting[c]			
Total			
Day[d]			
Evening[d]			
Two Students Per Family:			
College Housing[e]			
Commuting[c]			
Total			
Day[d]			
Evening[d]			
Total Head Count			

NOTES:

a. Data in this table must track with data in Table B2-a. This table must be developed for each enrollment phase indicated in Table B2-a.
b. "College Housing" describes those students residing in on-campus housing facilities.
c. "Commuting" describes those students residing in off-campus housing.
d. The total of day and evening students should equal the total of college-housed and commuting students.
e. The count here should be the total number of students. Thus, if the count here is 200, this figure will be interpreted to mean that 100 housing units will be required to accommodate the students.

TABLE B2-e FACULTY AND STAFF BY FUNCTIONAL AREA

Staff Category	Present Year			Phase 1 Year			Phase 2 Year		
	Total	Day	Eve.	Total	Day	Eve.	Total	Day	Eve.
RESIDENT INSTRUCTION									
Faculty and Academic Administrators									
Headcount									
Full-Time Equivalent[a]									
Non-Student Support Personnel (HC)									
RESEARCH									
Faculty and Academic Administrators									
Headcount									
Full-Time Equivalent									
Total									
Requiring Laboratory Space[b]									
Not requiring Laboratory Space									
Non-Student Support Personnel (HC)									
ORGANIZED ACTIVITIES RELATED TO INSTRUCTION[c]									
Professional Personnel (HC)									
Non-Student Support Personnel (HC)									
LIBRARY									
Professional Personnel (HC)									
Non-Student Support Personnel (HC)									
EXTENSION AND PUBLIC SERVICE[d]									
Professional Personnel (HC)									
Non-Student Support Personnel (HC)									
ADMINISTRATION AND GENERAL									
Professional Personnel (HC)									
Non-Student Support Personnel (HC)									
PHYSICAL PLANT OPERATION AND MAINTENANCE									
Professional Personnel (HC)									
Non-Student Support Personnel (HC)									
AUXILIARY ENTERPRISES[e]									
Professional Personnel (HC)									
Non-Student Support Personnel (HC)									
NON-INSTITUTIONAL AGENCIES (HC)									

a. Coordinate with data on Table B2-f. ~~; see student/faculty ratios in Section F.~~
b. This category should be further sub-divided according to the academic discipline categories shown under "Other Research Space" in Section F.
c. This category should be further sub-divided according to individual organized activity.
d. Only those personnel who are located on campus should be listed here.
e. This category should be further sub-divided according to enterprise; i.e., housing, food service, ~~student union~~ etc.

13.00 Visitors

While definitive projections of the number of visitors who can be expected on a campus are hardly feasible, the matter is of consequence and deserves more than passing consideration. Provisions must be made for routine day-to-day visitors who may be expected at many of the facilities on campus. Obviously, there will be need for automobile parking facilities, information centers, waiting areas, etc., for these people. When special events involving visitors as participants or spectators are held on campus, demand for facility provisions may be rather substantial. Athletics events, performing arts, etc., will all contribute to this area of facility demand.

Certainly, policy decisions regarding elements which relate to campus visitors must be obtained by the campus planner prior to making any attempt to determine the scope of on-campus vehicle circulation and storage facilities, as well as other facilities.

14.00 Building Space Projections--Total

The assignable area in square feet (ASF) of building space needed on a campus may be determined based upon the number of people to occupy the facility and the functions which they undertake while there. Assignable area may then be converted to gross area in square feet (GSF) through the use of appropriate conversion factors (See Part F).

Building space needs for the various structures on a campus AT THE TWO growth phases ~~to maximum growth~~ are an essential element of the long-range campus master plan.

15.00 New Campuses

Unless new campuses make use of existing facilities for the purposes of the institution, the projection of building space involves the consideration of new facilities only. In that instance, it is necessary to make use of the data in this section of the guidelines without consideration of the effects of continued use of existing building space.

16.00 Campuses with Existing Facilities

On existing campuses, or new campuses which will make use of some existing buildings, the procedure ~~of~~ FOR determining the construction of new building space and the use of existing building space is a more complex operation. In this instance, the following steps are logical:

A. Building Space Projections

Total building space needs must be projected at the TWO ~~several~~ phases of campus growth. ~~to maximum growth~~. Procedures for making these projections are described in this section of the guidelines.

B. Inventory of Existing Facilities

An inventory must be made describing ALL existing facilities, REGARDLESS OF FUNDING SOURCE, establishing their present use and condition, as well as stating their appropriateness for continued use and life expectancy.

C. Use of Existing Facilities

Prior to recommending construction of new facilities, appropriate steps must be taken to assure the highest possible effective utilization of existing facilities with due consideration of operating costs. Greater utilization of capital resources should not be planned if inordinately high operating inefficiencies result. Utilization through Phase 1 should be PROJECTED IN GREATER DETAIL ~~established on a higher detailed basis~~. FOR PHASE 2, ~~where as for phases after Phase 1,~~ a more generalized approach should be taken. If it is possible to ascertain that certain facilities will be removed ~~at a point in time~~ beyond Phase 1 development, this information should be incorporated in the plan. RENOVATING AND REMODELING EXISTING FACILITIES SHOULD BE THE PREFERRED OPTION OVER BUILDING NEW FACILITIES WHEN DOING SO IS LESS COSTLY IN THE LONG TERM THAN BUILDING NEW FACILITIES.

D. Construction of New Facilities

After space provided in existing facilities is deducted from total space needs at the TWO ~~several~~ enrollment growth phases, ~~to maximum,~~ the remainder of space needs MAY ~~must~~ be met through the construction of new buildings. EXTENDING THE HOURS AND DAYS OF WEEK CLASSES AND LABORATORIES ARE TAUGHT SHOULD BE EXPLORED BEFORE NEW INSTRUCTIONAL FACILITIES ARE PROPOSED. SUBSTANTIAL INSTITUTIONAL ATTAINMENT OF CCHE SPACE UTILIZATION GUIDELINES OUTLINED IN PART F SHOULD BE THE GOAL BEFORE NEW FACILITIES ARE PROPOSED. IF CCHE SPACE UTILIZATION GUIDELINES

CANNOT BE MET, A RATIONALE FOR CONSTRUCTING NEW FACILITIES MUST BE PRESENTED.

17.00 Building Space Projection Categories

Space projections shall be grouped into the following categories:

A. Resident Instruction
   1. Classroom and classroom service space
   2. Instructional laboratories and service space
   3. Physical education facilities and service space
   4. Other teaching facilities and service space
   5. Instructional faculty offices and related secretarial, clerical, and office service space
   6. Other instructional space

B. Organized activities related to instruction

C. Research
   1. Research faculty offices and related secretarial, clerical, and office service space
   2. Other research space

D. Extension and Public Service
   1. Office space
   2. Other extension and public service space

E. Library

F. Administration and General
   1. Office space
   2. Other administration and general space

G. Physical plant service

H. Auxiliary enterprises

I. Non-institutional agencies

It is intended that this general listing will cover all facility types on a campus.

Various space standards and criteria relating to the above are presented in Part F. These standards should be followed wherever appropriate and any deviation from them should be justified in the planning documents.

18.00 Instructional Spaces

Projection of needs for instructional spaces at Phase 1 of campus growth (three years FROM ~~form~~ present), or at PHASE 2 (THREE YEARS LATER) ~~maximum enrollment if final growth will be reached in five years or less,~~ shall be based upon highly detailed data involving specific curriculum content, etc. Space projections of the ~~five~~ THREE-year (Phase 1) data as related to enrollment growth~~,~~ are adjusted to reflect predictable changes in space utilization as the size of the student body changes.

An estimate of the complete fall term (semester or quarter) curriculum at Phase 1 ~~(or maximum enrollment if final growth will be reached in five years or less)~~ shall be made on forms similar to Table C-7 assigning credit-hour values to each course and estimating enrollment in each course. The total student-credit-hour production for the institution must develop FTE student numbers THAT ~~which~~ concur with those projected at this enrollment period in Table C-3 and the FTE student numbers in each organizational unit must concur with those shown in Table C-2. In SOME ~~most~~ institutions, day enrollments in relation to day hours available will exceed evening enrollment loads in relation to evening hours available. ~~and, these, facilities needs will be based upon day schedules with the knowledge that evening classes, if any, will have more than adequate space.~~ IN OTHER INSTITUTIONS, ~~–most likely at urban institutions–~~evening enrollments may be greater in relation to evening hours available than daytime enrollments are to daytime hours available and may become the basis for the programming of some or all instructional space needs. If this is the case, adjustments may be~~come~~ necessary in the tables~~ and in utilization standards~~. These adjustments should be reviewed in depth with CCHE staff at an early point in the planning process.

"Present year" data as presented on Table B3-a should be presented on a course-by-course basis. The planner may find it helpful to group like-type courses within given organizational units for projection to subsequent phases. Such groupings should then be carried through Tables B3-b and B3-c. Care should be taken to ENSURE that the grouping of courses honors the credit value of courses, the level of courses, the number of room contact hours in classrooms, the number of room contact hours in a given type of laboratory, and the appropriate section size. For example, a "Type 1" history course may be a lower level course with a credit value of three which meets three hours per week in a classroom and which can accommodate 40 students in each section. The typing~~,~~ should be done on the basis of a consideration of all resource requirements, not just space requirements.

Next, on Table B3-b credit hours for each course are converted to contact hours, optimum section sizes are established, the number of sections

required are calculated, and the room-contact hours per week are established. Some courses require several kinds of spaces (i.e., classroom and laboratory or several classroom size configurations for lecture and subsequent discussion groups, etc.). This is taken into account by the table.

On Table B3-c, room-contact hours for all sections (transferred from Table B3-b) are converted to the number of rooms required for each room type. Then, using appropriate standards, the size of each room is computed.

As has been pointed ~~up~~ OUT previously, projections ~~of space requirements~~ for Phase 1 development should be ~~made on a~~ MORE detailed ~~basis~~, whereas a more generalized approach can be taken for ~~purposes of projecting to~~ PHASE 2. ~~subsequent phases of development.~~ ~~It is suggested that~~ Phase 1 projections MAY be used as a basis for calculating average assignable square feet per full-time-equivalent student in various space categories (or similar averages) and the averages then applied to projected FTE students as set forth in Table B2-c. Such generalized projections should be made with some care, however, since certain spaces may be incorporated in Phase 1 planning which will not need to be expanded in direct proportion to expansion of students. For example, a laboratory may be incorporated in Phase 1 planning (and thus in the averages) which will not be fully utilized at that level and which can accommodate additional students beyond Phase 1.

Table B3-c should be prepared on a simulated basis, without reference to existing space. After all space projections have been made as per B3-c, B3-d, ~~and~~ OR similar types of tables ~~which the planner may devise,~~ the projections should be related to existing space.

Table B3-d should be used to show projections of faculty and staff office space NEED. Data presented in this table should be based on projections of faculty and staff for resident instruction and research as presented in Table B2-e.

19.00 Research Space

Table B3-e has been prepared to serve as a guide in projecting research space other than office space for research personnel. Projections should be made for (a) individual work space for faculty/professional research personnel and graduate students engaged in research, including related service space, and (b) space for large-scale specialized equipment and technical services used in supporting research programs.

THE INSTITUTION SHOULD OUTLINE FOR THE COMMISSION THE ASSUMPTIONS IT MAKES TO CALCULATE RESEARCH SPACE NEEDS AND WHY IT SELECTED THOSE ASSUMPTIONS.

~~Included in Section F are criteria which can be used in calculating space requirements for individuals engaged in research. These criteria are typical, and should not be followed literally in all cases. They were developed on the basis of a principle that the amount of bench space or work area a person can utilize effectively is a function of the physical limitations that characterize all individuals. Wherever the individual is not the dominant element in the research environment, as is the case in certain engineering research or large animal studies, the development of research space estimates cannot be based on criteria that are oriented towards human characteristics alone.~~

SPACE REQUIREMENTS FOR Research facilities NEEDING SPECIAL PURPOSE ~~not directly related to individual work area requirements should be dealt with separately with~~ space SHOULD BE ~~requirements~~ determined by the nature of the facility. ~~Examples would be cyclotrons, wind tunnels, and the like.~~

20.00 Library Space

Projection of library space needs shall be based upon the institution's library collection goals and service delivery strategies. Describe the existing and proposed functions of the campus library information network and the spatial distribution of campus library services. For decentralized library networks, describe the collection and services available at each branch library. THE INSTITUTION SHOULD INTEGRATE ITS TECHNOLOGY PLANS WITH ITS INFORMATION STORAGE AND ACCESS PLAN FOR ITS LIBRARY SERVICES.

The institution's collection development policy should be compatible with the institution role and mission, academic programs, and research programs. It should also provide resources for state-recognized centers of excellence.
The collection development policy should include the following information, as applicable.

A. Library role and mission statement.
B. Clientele to be served, both institution and non-institution.
C. General subject boundaries of the collection.
D. Academic programs and user needs supported (instruction, research, reference, recreation, etc.).
E. Library resource selection priorities
   1) Collection breadth and depth of subject coverage.
   2) Continuing financial support for strong collections.
   3) Forms of materials collected or excluded.
   4) Languages and geographical areas collected or excluded.
   5) Chronological periods collected or excluded.

6) Other exclusions.
7) Duplication of materials.

F. National, regional, and local co-operative collection agreements which complement or otherwise impact the institution's collection development policy.

The size of the institution's library collection is based upon the size of the existing collection plus the institution's net annual acquisition rate (See Section F: Space Planning Criteria for Libraries - Collection Size.)

Describe the historical acquisition trends for the past five years. Note any trends in short-term funding and special funding that have affected past acquisitions. Explain how the proposed annual acquisition rate relates to academic program goals and to governing board operating budget goals.

Discuss the de-selection (weeding) policy for the institution including the management of out-dated materials, damaged materials and multiple copies. Describe the institution's policies for reallocating library resources to respond to new programs, discontinued programs, research efforts and relocation of programs to other campuses.

Discuss the institution's access to non-campus collections and computer databases through contracts, library access agreements and inter-library loan agreements. Describe ~~the recent~~ ALL INFORMATION (ACCESS, STORAGE, DELIVERY) technologY~~ical advancements which~~ THAT will be integrated into the library system.

Describe the types of collection materials that must remain in on-campus storage and those that may appropriately be stored in off-campus facilities. Provide a cost/benefit analysis of compact storage and remote storage options including: accessibility, personnel costs, turnaround time, frequency of use, transportation, environmental controls, fire safety, and general suitability.

The percentage of student FTE to be provided with study stations is limited to a maximum of 20 percent for community colleges and 25 percent for four-year colleges and universities. (Specialized libraries such as medical and law libraries are not subject to these maximum percentages.) The percentage of student FTE with study stations must be justified on the basis of:

- Program and/or educational level
- Characteristics of the users (user survey; elements of the survey should be discussed with CCHE staff prior to data collection)
- Residential or commuter campus setting
- Delivery of materials

- Use of materials (use survey)
- Alternative study areas
- Others, as applicable.

Document and justify any need for additional study stations required for faculty or community users and describe the methods used to quantify this need. The percentage of the study stations that must be electronically equipped shall be based upon academic program delivery, campus layout and facility locations. Describe the spatial distribution of study stations around the campus.

Describe the level of services to be provided by library staff. Translate this level of service into an institutional student FTE/library staff FTE ratio. (The ratio should include all staff administrators, departmental heads, librarians, support staff, student assistants, etc.) This ratio should be used in the projection of future staffing levels.

Table B3-f, or an adapted version of same, should be used to show projections of library space requirements. Space utilization criteria to be used in master planning for library space are included in ~~Section~~ PART F.

21.00 Other Space

No illustrative tables are being presented at this time for purposes of showing space projections for other areas. However, the planner should systematically develop space projections for each area in addition to those previously covered and should present those projections in appropriate formats similar to those shown in this section. For example, in the area of administrative and general office space, Table B3-d can be adapted for purposes of showing space projections for each organizational unit.

TABLE B3-a ENROLLMENTS & STUDENT CREDITS

Organizational Unit	Course Number	Brief Course Description	Course Type	Course Credits	Level of Course (Lower, Upper, etc.)[a]	Present Year				Phase 1 Year			
						Fall Enrollment		Student Credits		Fall Enrollment		Student Credits	
						Day	Eve	Day	Eve	Day	Eve	Day	Eve
A	B	C	D	E	F	G	H	I	J	K	L	M=ExK	N=ExL

[a]Courses within an organizational unit should be arranged with non-credit or remedial courses first, lower level courses second, etc. Use "N" to designate non-credit, "L" for Lower, "U" for Upper, "G1" for Graduate 1, and "G2" for Graduate 2. Data in columns G through N should be totaled for each level within each organizational unit. These totals should track with data presented on Table B2-c.

TABLE B3-b ROOM CONTACT HOURS AND STUDENT CONTACT HOURS BY COURSE[a]

Organizational Unit:

Course Number	Day Enroll-ment at Phase 1[b]	Classroom 1								Instructional Laboratory/Classroom 2							
		Room Contact Hours per Section	Total Student Contact Hours	Section Size			No. Sections Required	Total Room Contact Hrs. per Week	Est. Avg. Sec. Size	Room Contact Hours per Section	Total Student Contact Hours	Section Size			No. Sections Required	Total Room Contact Hrs. per Week	Est. Avg. Sec. Size
				Min	Opt[c]	Max						Min	Opt[c]	Max			
B	C	D	E=CxD	F	G	H	I	J=DxI	K=CxL	T	U=CxT	V	W	X	Y	Z=TxY	AA=CxY

a. Courses should be listed on this table in the same order as presented on Table B3-a.
b. Enrollments as reported in this column should be the same as enrollments reported in Column J of Table B3-a.
c. The section size most desirable for teaching purposes.

NOTE: "Classroom 1" and "Classroom 2" designations shown in this table are to make it possible to calculate space requirements when two different classroom settings are required for the same course; e.g., a course which meets one day a week in a large lecture setting and two days a week in a small discussion setting.

TABLE B3-c CLASSES SCHEDULED INTO _____ FACILITIES[a]

Room Identification	Room Guidelines					Planned					Schedule of Classes			
	Sq. Ft. Prime Space	Stations		Service Space		Sq. Ft. Prime Space	Stations		Service Space		Organiza-tional Unit	Course No.	Section Size	Room Contact Hours
		No.	Sq. Ft. Per Sta.[b]	Sq. Ft.	% of Prime Space		No.	Sq. Ft. per Sta.[b]	Sq. Ft.	% of Prime Space				

[a.] A separate table should be prepared for (a) classrooms, (b) instructional laboratories, (c) physical education facilities, and (d) other teaching facilities. If a service area is being planned to serve more than one classroom, lab, or physical education space, the rooms being served should be listed consecutively with the service area being identified with the room it would serve. Any significant deviation from the guidelines contained elsewhere in this publication should be explained and justified in supplementary narrative. Existing spaces should be presented first in this table, with proposed new spaces following.

[b.] Include circulation space within the room.

TABLE B3-d PROJECTIONS OF INSTRUCTIONAL AND RESEARCH FACULTY OFFICES AND RELATED SECRETARIAL, CLERICAL, OFFICE SERVICE SPACE

Staff Category	Present Year			Phase 1			Phase 2		
	Number Stations	Sq. Ft. per Station	Sq. Ft.	Number Stations	Sq. Ft. per Station	Sq. Ft.	Number Stations	Sq. Ft. per Station	Sq. Ft.
State-Funded Instruction:									
Academic Vice-President, Dean of College									
Department Chairman, Associate Dean of College									
Faculty Requiring Studio Offices (Art/Music)									
Other Faculty									
Graduate Assistants									
Secretarial and Clerical									
Sub-Total State-Funded Instruction									
Sponsored Instruction:									
Faculty Requiring Studio Offices (Music/Art)									
Other Faculty									
Graduate Assistants									
Secretarial and Clerical									
Sub-Total State-Funded Instruction									
State-Funded Research:									
Faculty Requiring Studio Offices (Music/Art)									
Other Faculty									
Graduate Assistants									
Secretarial and Clerical									
Sub-Total State-Funded Instruction									
Sponsored Research:									
Faculty Requiring Studio Offices (Music/Art)									
Other Faculty									
Graduate Assistants									
Secretarial and Clerical									
Sub-Total State-Funded Instruction									
Total Office Space									
Office Service:									
% of Office Space									
Total Sq. Ft.									
Conference Rooms									
File/Storage Rooms									
Other: _____ _____ _____									
Grand Total Offices and Office Service Space									

TABLE B3-e PROJECTIONS OF RESEARCH SPACE OTHER THAN OFFICES

Organizational Unit:

	Present Year			Phase 1			Phase 2		
	No. Requiring Research Space	Sq. Ft. per Station	Sq. Ft.	No. Requiring Research Space	Sq. Ft. per Station	Sq. Ft.	No. Requiring Research Space	Sq. Ft. per Station	Sq. Ft.
Stations for Researchers:									
Primary Space:									
State-Funded:									
Faculty and Professional									
Graduate Students									
Sub-Total State-Funded									
Sponsored Research:									
Faculty and Professional									
Graduate Students									
Sub-Total Sponsored									
Sub-Total Primary Space									
Service Space:									
% of Primary Space									
Square Feet									
Total Primary and Service Space									
Other Research Space (Identify):[a]									
Primary Space:									
_____									
_____									
_____									
_____									
Sub-Total Other									
Service Space:									
% of Primary Space									
Square Feet									
Total Primary and Service Space									
Grand Total Research Space									

[a.] Included here should be space to house large scale specialized equipment and technical services used in supporting research programs.

TABLE B3-f PROJECTIONS OF LIBRARY BOOKS AND SPACE

Category	Existing			Planned		
	Number	Conversion Factor per Volumes, Student or Sq. Ft.	Total AFS	Number	Conversion Factor per Volumes, Student or Sq. Ft.	Total AFS
Stack Space: Total Volumes TOTAL STACK SPACE		.10 or .08[a] --			.10 or .08[a] --	
Reader Space: Total FTE Students* *Regular Station *Electronic Station TOTAL READER SPACE		 6.25 or 5[b] 7.50 or 6[c] --			 6.25 or 5[b] 7.50 or 6[c] --	
TOTAL STACK AND READER SPACE	--	--		--	--	
Service Space: Under 40,000 ASF 40,000 ASF or Over TOTAL SERVICE SPACE		 .25[d] .19[e] --			 .25[d] .19[e] --	
TOTAL ASF	--	--		--	--	

a. 0.10 per ASF per volume for first 300,000 volumes, then 0.08 ASF per volume for larger collections.
b. 6.25 for universities and four-year colleges; 5 for community colleges;
c. 7.50 for universities and four-year colleges; 6 for community colleges;
d. 25% of Total Stack and Reader Space.
e. 19% of Total Stack and Reader Space.

22.00 Inventory of Existing Physical Plant

For existing institutions which will continue to occupy part or all of their present facilities or for new institutions INTENDING TO ~~which will~~ convert buildings or other facilities already existing into educational facilities, it is necessary to generate and present a substantial amount of data about the existing physical plant. These data shall--in a single, well-prepared package--present a comprehensive overview of the entire facilities of the institution including the amount and nature of its land holdings, the surface and subsurface development of its land, and much information about its buildings. It shall include all facilities which now exist and/or for which construction funds have been provided. Any facilities for which physical planning funds have been appropriated should be included to the depth that available information will permit. This will provide the institution an effective and immediately accessible document which reports on physical plant in adequate detail.

The following data are essential elements of the inventory of existing physical plant:

A. Campus Site or Sites

A diagrammatic map showing the boundaries of the institution's service area and the location of the institution's main campus and other land holdings. Identify whether land holdings are owned, leased, rented, etc.

B. Main Campus or Campuses

A diagrammatic map showing the location of the main campus and other major permanent facilities or campuses in the city or community within which the main campus is located (e.g., at CSU, the Main Campus, the Foothills Campus, AND THE SOUTH CAMPUS; at UNC, the three major campus areas). Include rented facilities (with special identification) if it is anticipated that such rental will be ~~on a~~ long-term (FIVE YEARS OR MORE) ~~basis~~.

C. Environs

Diagrammatic maps and written descriptions of the environs of the main campus or campuses including zoning, land use, access networks, visual characteristics, utility systems, etc.

23.00 Main Campus or Campuses

Detailed campus maps and/or written description of the following:

A. Boundaries and Restrictions

Provide a boundaries map based upon current abstracts of all land holdings. Provide accurate information on all such restrictions as easements, rights-of-way, restrictive conditions imposed upon use of lands (i.e., restrictions imposed upon use of land by the donor of the land, etc.).

B. Topography and Drainage

Provide a topographic map or maps of all campus land holdings which are either already developed or will be considered for development within the time span of this master plan. Normally, topography based upon the aerial photography method will be sufficiently accurate but, in special cases, land surveys may be required. In most instances, the aerial topography method will prove to be the least costly and will generally be adequately accurate for raw land. In many instances, topography obtained for this facilities inventory will also be suitable for use in the physical planning of actual projects. At other times, more accurate data may be necessary. These matters should be discussed and determined for each campus prior to undertaking a topographic survey. At this time, such matters as contour interval will be determined. Any surface drainage problems should be identified and described.

C. Subsurface Soils Conditions

Adequate data must be obtained regarding the ability of subsurface soils conditions of land holdings to accept campus development. This includes the ability of soils to economically support building foundation loads and to be contoured as required. Subsurface water, if any, should be indicated. On raw land, it will probably be necessary to drill an appropriate number of test holes in order to determine subsurface conditions. On developed land, it is likely that investigations and reports already exist and may be used as a basis for a general summary statement.

D. Surface Land Development

Provide a map or maps indicating locations of all surface development including buildings, streets, sidewalks, parking lots, paved courts, fields, general location and type of landscape elements, air or surface utilities, etc. These maps may be combined with topographic maps if desired.

E. Underground Utilities

Provide a map or maps showing size, approximate or actual location, depth, etc., of all underground utilities systems.

24.00 Buildings

A. Key Map

Provide a key map identifying each building by name and the code numbers used in the room inventory.

B. Each Building

For each building shown on the key map, provide the following:

1) THE FACIILTIES CONDITION INDEX. ~~Exterior photograph of major façade.~~
2) A SUMMARY OF THE NUMBER OF ROOMS, THEIR FUNCTIONAL USE, THE STUDENT-STATION CAPACITYOF STUDENT SPACE AND THE AGGREGATE ALLOCATION OF NON-STUDENT SPACE. ~~Diagrammatic floor plans at small scale identifying each room at room number, functional use, room type, number of stations, and area as indicated in the room inventory.~~
3) A general building description, INCLUDING ITS DESCRIPTION, per Table B4-a ~~(no sample format provided)~~.
4) GROSS SQUARE FOOTAGE AND ASSIGNABLE SQUARE FOOTAGE BY USE TYPE WITHIN THE BUILDING ~~Space summary per Table B4-b.~~

25.00 Automobile Parking Facilities

When land-use patterns on almost every campus are examined, it becomes evident that the storage of parked automobiles has rapidly become one of the several major functions ~~which~~ THAT consumes campus land. Actually,

the automobile at best takes up more space than that needed for the housing of a single student. In the square footage occupied by twenty automobiles, three hundred students could be given instruction. Thus, the matter of programming facilities for automobile parking is of considerable importance.

A. Key Map

Provide a key map identifying each automobile parking facility by type (surface lot, structure, or on-street) and capacity, and code number used in the parking facility inventory forms. On relatively simple campuses, this key map may be combined with the key map for buildings.

B. Each Parking Facility

Using Tables B4-c through B4-e, provide data for each parking facility.

~~27.00 Automobile Parking~~
27.00 Determining Parking Need

Demand for automobile parking facilities is shaped by many influences--enrollment, policy, physical characteristics of the campus, off-campus provisions, economic considerations, habits of automobile users, availability of mass transit, and a number of other things. These influences will vary broadly from campus to campus.

Generally, parking facilities will be required for students, faculty, staff and visitors. Policy decisions will be required for each category of user.

Analyses of the need (demand) for automobile parking facilities should be based upon information gathered from a series of questions similar to the following:

A. Policy

1. Will limitations be imposed upon the use of automobiles by students, faculty, staff and/or visitors? If so, what will they be?

2. Will parking fees be charged? If so, what will be their approximate amount by classification of user?[2]

[2]Present policy provides that appropriated state funds will provide for facilities for parking of state-owned vehicles only.

3. Will restrictions be placed upon which parking facility may be used by the several classifications of auto user?

4. Will registration of vehicles be required?

5. Will curb parking be permitted on the campus street network? If so, will parking be regulated?

6. Will curb parking be permitted on the street network surrounding the campus? If so, will parking time be limited?

7. For whom and for what types of on-campus activities or functions will visitor parking facilities be provided? Parking demand by visitors can range from limited need at such visitor used buildings as the administration building, union, library, etc., to vast need at spectator facilities for the performing arts, athletic events, and other such affairs.

B. User Preference and Habits

1. What proportion of the students, faculty, staff and/or visitors presently drive an automobile for or on the campus? Daily or less frequently? If less than daily, how often?

2. How many passengers are there in the car on an average basis?

3. How far is the user in each classification willing to walk from his parked automobile to his destination?

4. Would the user be willing to pay a parking fee? If this fee were to vary depending upon distance between parking facility to destination, would this affect the selection of the location of the facility used?

5. Would the use of mass transit be appealing if the price were considered reasonable? Is mass transit available or likely to be available in the area of the campus?

After adequate data related to policy, user preferences and habits have been generated, the number and kinds of parking spaces required to serve the several user categories may be estimated. Such estimates may be made upon a population served basis or by relationship to land uses. For the first method, determine the present ratios of automobiles to campus population

and project that factor (weighted if necessary to reflect changing circumstances) over the several phases of enrollment growth. For the second method, determine how many vehicles are GENERATED ~~attracted~~ by each type of campus land use. Estimate future land-use requirements and, in turn, future parking loads. Perhaps, the two methods will be used in combination. Actually, conditions at the various campuses in Colorado vary so widely that a specific forecasting procedure will likely have to be developed for each campus.

29.00 Existing Parking Facilities

On campuses where parking facilities already exist, they must be inventoried and evaluated to determine their suitability for continuing use for short-range or long-range time frames. The facilities which will be used must be deducted from total demand in order to determine the scope of new facilities.

30.00 New Parking Facilities

Having identified quantity of parking spaces for the several user categories, it is necessary to consider the types and location of new parking facilities.

The availability and cost of land will bear heavily upon the type of parking facilities to be constructed. Surface parking lots including paving, curbing, stripes, and lighting may BE ~~cost only $200.00[3] or so per space to construct, but they are~~ capable of accommodating only 125 to 140 automobiles per acre. Multi-level parking structures are far more costly to build~~, --say from $2,000.00[3] to $4,000.00[3] per parking lots relates to the price of land.~~ but can accommodate more vehicles per acre than surface lots. ~~When land values range over $150,000.00 to $175,000.00 per acre, it becomes economical to construct structured parking.~~ A~~nother~~ criterion for DECIDING WHETHER TO BUILD SURFACE LOTS OR MULTI-LEVEL PARKING STRUCTURES ~~this decision~~ relates to the ability to finance parking facilities without imposing undue FINANCIAL strain on the ~~pocketbook of the~~ userS.

~~On some campuses, a great portion of the auto parking is accommodated at the curbs of that campus street network. Frequently, this is an ugly and dangerous answer to the problem.~~

Location of parking facilities should be determined in large measure on the basis of the destination of the driver. Other factors which should be considered are campus policy and many aspects of general campus layout

[3] In 1973 dollars, not including cost of land.

including the pattern of the street network, building location, location of available open land areas, contour of terrain, etc.

It might well be noted that, in some instance, parking facilities for visitors who are spectators at large public events on campus are sometimes provided on grass field areas used for physical education or as environmental green spaces. Frequently, this practice results in damage to such areas which is costly to repair. A decision to follow this practice should be carefully made.

When land for parking facilities is simply not available on campus, remote parking lots may be workable using a system of shuttle buses to reach the campus destination.

31.00 Student Demand

Calculating the need or demand for parking facilities is difficult. Most methods of measuring demand are so time consuming and complete that they are by-passed in favor of the somewhat arbitrary method of present parking usage on campus and projecting this historical data into the future, weighing it to reflect probable trend changes.

A study of vehicle registration will frequently produce the number of vehicles registered to each category of user (resident students, non-resident students, etc.). The CAR OWNERSHIP RATIO (COR) may be computed for each user classification through the following formula:

$$\text{COR} = \frac{\text{Total Population (Resident Student)}}{\text{No. of vehicles registered (resident students)}}$$

The CORs developed for each user classification may be weighed and applied against population projections to compute future student parking demand.

The number of students in class during the maximum class hours of the week is used with the CORs to determine how many student vehicles are on campus during the maximum hour (or time of peak usage). The number of resident-student vehicles in the parking lots will probably remain about constant during the week, as will faculty-staff requirements. However, non-resident student requirements will vary considerably during the day and this is the reason the peak class hour is used.

An examination of the general trend of car ownership, using the past and present CORs for each category of parkers, will establish appropriate ratios for future years. It is expected that, with car ownership on the rise throughout the nation, and certainly with young people, these ratios will be

no larger than the present CORs found and will probably be smaller. All future constraints should be taken into account. For instance, it should be recognized that, if the current administration's policy is not to build new dormitories and not to restrict enrollment, student enrollment increases will occur within the non-resident body. Therefore, very little, if any additional resident student parking will need to be provided. However, under these circumstances, non-resident student parking may quickly become critical.

32.00 Faculty-Staff Demand

The car ownership ratios for faculty and staff are used in conjunction with the maximum expected numbers of faculty and staff members on campus at any one time in order to determine the number of faculty-staff vehicles on campus. By using historical and current car ownership ratios, projections of the expected number of vehicles on campus, given the future number of faculty-staff members, can be made.

33.00 Turn-Over

The actual capacity of campus parking facilities must exceed the number of vehicles to be accommodated in order to permit turn-over of spaces between peak load periods ONLY if the peak load periods occur back-to-back. In other words, if two peak load periods occur back-to-back, it would not be possible for sufficient parking spaces to be vacated and new vehicles accommodated within the time period available between classes.

TABLE B4-b BUILDING SPACE SUMMARY BY TYPE OF SPACE[a]

Function or Room Type	Function Code	Room Type Code	Total Square Feet
Resident Instruction:	10		
Classroom	10	110	
Classroom Service	10	115	
Etc.			
Organized Activities:	15		
Classroom	15	110	
Classroom Service	15	115	
Etc.			
Research:	20		
Faculty Offices	20	311	
Etc.			
TOTAL			

[a] Include all assignable and non-assignable room areas.

TABLE B4-c SURFACE PARKING LOT INVENTORY

Note: This questionnaire pertains only to surface parking lots used daily for normal campus activities. Omit special-use facilities used only for athletics or other spectator events, etc. A scale diagram of the lot may accompany this form if desired.

1. KEY NUMBER ON SITE PLAN

2. NUMBER OF SPACES PROVIDED

3. GENERAL USE DATA

a.	Is use restricted?	Yes _____	No _____
	If so, to whom?	Students	_____
		Faculty	_____
		Staff	_____
		Visitors	_____
b.	Are spaces reserved?	Yes _____	No _____
c.	Are control devices used?	Yes _____	No _____
	If so, what type?	Special permits	_____
		Parking meters	_____
		Cashier	_____
		Automatic gates	_____
		Other methods (Explain)	_____
d.	Is parking lot related by location or use to a specific building or building group?	Yes _____	No _____
	If so, state building function (academic, residence hall, etc.)		

4. GENERAL FACILITY DATA

Describe scope of facility

a.	Asphalt or concrete paving	Yes _____		No _____
b.	Painted stripes	Yes _____		No _____
c.	Concrete or asphalt curbs, bumpers, etc.	Yes _____		No _____
d.	Lighting	Yes _____		No _____
e.	Describe condition of facility (explain if necessary)	Good _____	Fair _____	Poor _____

TABLE B4-d PARKING STRUCTURE INVENTORY

Note: This questionnaire pertains only to parking structures used daily for normal campus activities. Omit any special-use facilities used only for athletics or other spectator events, etc. A scale diagram of each floor of this facility must accompany this form.

1. KEY NUMBER OF AREA ON SITE PLAN

2. NUMBER OF SPACES PROVIDED

3. GENERAL USE DATA

   a. Is use restricted? Yes _____ No _____

      If so, to whom?
      Students _____
      Faculty _____
      Staff _____
      Visitors _____

   b. Are spaces reserved? Yes _____ No _____

   c. Are control devices used? Yes _____ No _____

      If so, what type?
      Special permits _____
      Parking meters _____
      Cashier _____
      Automatic gates _____
      Other methods _____
      (Explain)

   d. Is parking structure related by location or use to a specific building or building group? Yes _____ No _____

      If so, state building function (academic, residence hall, etc.)

4. GENERAL FACILITY DATA

   Describe scope of facility

   a. Number of stories, including ground level

   b. Type of construction (concrete, steel, etc.) Yes _____ No _____

   c. Is facility above or below grade?

   d. Is facility lighted? Yes _____ No _____

   e. Describe condition of facility (explain if necessary) Good _____ Fair _____ Poor _____

TABLE B4-e ON-STREET (CURB) PARKING INVENTORY

Note: This questionnaire pertains only to on-street (curb) parking spaces used daily for normal campus activities. Omit any special-use spaces. Provide a site plan identifying location of curb parking area.

1. KEY NUMBER OF AREA ON SITE PLAN

2. NUMBER OF SPACES PROVIDED

3. GENERAL USE DATA

a.	Is use restricted?	Yes _____	No _____
	If so, to whom?	Students Faculty Staff Visitors	_____ _____ _____ _____
b.	Are spaces reserved?	Yes _____	No _____
c.	Are control devices used?	Yes _____	No _____
	If so, what type?	Special permits Parking meters Other methods (Explain)	_____ _____ _____
d.	Is on-street (curb) parking related by location or use to a specific building or building group?	Yes _____	No _____
	If so, state building function (academic, residence hall, etc.)		

4. GENERAL FACILITY DATA

Describe scope of parking

a.	Marking of spaces	Parallel _____ Diagonal _____	
b.	Is street paved?	Yes _____	No _____

TABLE B4-f AUTOMOBILE PARKING FACILITY INVENTORY - SUMMARY

Note: On this form, enter data which have been set forth in detail on Tables B4-c, B4-d, and B4-e.

1. SURFACE PARKING LOT SPACES

   a. Number of unassigned spaces _____

   b. Number of assigned spaces _____

      Students _____
      Faculty _____
      Staff _____
      Visitors _____
      Total _____

   c. Total surface parking lot spaces _____

2. PARKING STRUCTURE SPACES

   a. Number of unassigned spaces _____

   b. Number of assigned spaces _____

      Students _____
      Faculty _____
      Staff _____
      Visitors _____
      Total _____

   c. Total parking structure spaces _____

3. ON-STREET (CURB) SPACES

   a. Number of unassigned spaces _____

   b. Number of assigned spaces _____

      Students _____
      Faculty _____
      Staff _____
      Visitors _____
      Total _____

   c. Total on-street (curb) spaces _____

4. TOTAL PARKING SPACES _____

26.00 Other Surface Development

A. Key Map

Provide a key map identifying significant surface development of campus land for other than buildings or automobile parking facilities. (example: paved courts for physical education, athletics, or recreation; grandstand; grass fields for physical education, athletics, or recreation; etc.) On relatively simple campuses, this key map may be combined with key maps for buildings and parking facilities. Identify each surface development included on the key map with the code number and use described in the inventory.

B. Each Facility

Provide adequate descriptions of each facility including use, size, condition, etc.

27.00 INFORMATION TECHNOLOGY STRATEGIC PLANNING

27.01 Objectives

The objectives of information technology (IT) strategic planning are to ensure that cost-effective IT resources are in place to support the institutions' roles and missions, that higher education governing boards and institutions have planning processes in place, that they are utilized in decision-making, and that State, commission and system goals are achieved. In addition, IT planning enables the forecasting of areas in which new policy or funding initiatives are desirable.

27.02 Statutory Authority

23-1-108 C.R.S. provides general duties and powers of the commission with regard to systemwide planning, specifically, "(a) for the best use of available resources," which is interpreted to include IT resources.

23-13-104 C.R.S. provides statewide expectations and goals for higher education, including "(1) (d) technology integration to lower the institution's capital and administrative costs and improve the quality and delivery of education and provide effective stewardship of existing assets, recognizing that all technology changes may not result in lower costs in the academic arena. To meet this goal, each institution shall: (I) Integrate technology to reduce the institution's cost per unit of education; (II) Integrate technology to improve the marketability of graduates in the workplace; (III) Improve student access and continuing education through increased distance learning; (IV) Improve learning productivity."

27.03 Governing Board and Institutional Planning

27.03.01 Planning Process

Each higher education governing board shall ensure that all institutions under its authority have appropriate planning processes established, that governing board planning priorities and criteria, as appropriate, have been observed, that institutions have developed planning documents, and that incentives have been established for USING ~~placing~~ the planning documents ~~into use~~. The planning documents shall be used to guide institutions' IT decisions for ensuring adequate and cost-effective IT assets (infrastructure, technology and applications) are in place with appropriate support for their effective use.

27.03.02 IT Master Plan

Each governing board shall submit an IT master plan every four years commencing January 1, 2002.

The plan shall encompass the institution(s) under its authority or be comprised of the plans of individual institutions. An IT master plan requires input from the breadth of institutional governance groups. A plan shall be adjusted as necessary but is expected to guide major IT initiatives through its four-year life.

IT master plans provide a context for individual initiatives, funded either by the institutions or through the State, and do not comprise detailed commitments for initiatives.

IT master plans shall include high-level descriptions of key goals, strategies, initiatives, and resources required. Major initiatives identified in the master plan shall require additional detailed planning. An IT master plan shall provide information that is useful in understanding the context for any funding request to the institution, governing board, or the State.

27.03.03 Expected Elements of an IT Master Plan

The plans shall provide the following information:

1. A restatement of the GOVERNING BOARD and institutional missions.
2. A vision statement related to the role and opportunities of IT to support academic and administrative goals
3. A summary of prior initiatives and accomplishments

4. A summary of the current status of IT operations, initiatives, resources, and key issues
5. A statement of major goals and objectives for IT support and investments
6. A summary of strategic issues and barriers or obstacles to successfully fulfilling academic or administrative goals
7. A description of the PROPOSED strategies ~~which are proposed~~ for achieving the goals along with a statement of rationale
8. A description~~, for~~ of each major planned initiative within the coming four years, to include: recommendation, rationale, current status and discussion, steps, required involvement, expected costs, sources of funding, and timing.
9. A financial summary keyed to the resources required to implement the major planned initiatives.

27.04 Commission Planning

27.04.01 IT Vision for Higher Education

The commission shall maintain a high-level vision for IT that is reviewed annually and updated with appropriate input from the governing boards. The governing boards' IT master plans shall take this high-level vision into account in their planning activities.

27.04.02 CHIEF INFORMATION OFFICERS (CIO) Council

A CIO Council shall meet regularly to provide an ongoing forum for communication, coordination, and collaboration among the commission, higher education governing boards, and the State CIO regarding the strategic use of information systems to achieve the mission of higher education, both academic and administrative. The council shall not be a policy-making or rule-formulating body. It~~s~~ purpose shall be to facilitate the policy-making responsibilities of its member institutions through awareness, analysis, and discussion.

The council shall be comprised of CEO-designated representatives from each governing board, the CCHE CIO, a representative from the State CIO, and other members as may be appropriate.

27.04.03 Annual IT Report

An annual report shall be prepared that summarizes State, commission, and governing board IT strategic planning, focusing on the ways in which IT planning has been implemented in the context of the commission's IT vision for higher education.

Through ~~a~~ review OF available information, including the governing board's IT master plans, any IT program plans submitted for capital assets, the IT components of academic and facilities master plans, the proceedings of the CIO Council, on-site visits ~~at~~ to the campuses, and other useful sources of information, the report shall describe how governing board and institutional planning and resulting actions have helped to achieve system-wide goals of high quality, access, diversity, efficiency and accountability, and, in what ways planning may not have achieved desired results.

The report also shall describe any further steps that need to be taken to ensure that State, commission, and system goals are achieved. The report shall describe ways in which governing board and institutional planning efforts and the utilization of plans have demonstrated the need for new state-level policy or funding initiatives.

The report shall be written with consultation from the CIO Council.

The report shall be submitted for commission review and approval in June of each year.

27.04.04 IT Benchmarks

The commission may adopt and revise from time to time a compilation of IT benchmarks as a guide to what technologies, systems, applications, and levels of service are currently considered best practice. These benchmarks may be tied in general to institutional size, role and mission. The benchmarks are intended to provide guidance to the governing boards regarding the commission's priorities with regard to the IT systems and plans. Benchmarks shall be developed with input from the CIO Council.

Benchmarks may be developed in the following areas, including but not limited to: computers for faculty, students and administration, student computing labs, networking (residential networking, remote access, on-campus access, telephony, wireless, Internet access), servers, user support, technology-equipped classrooms and technology-enhanced instruction, access for those with disabilities, library systems, administrative and student information systems, staffing and personnel, and distance education.

27.05 Relationship of IT Planning to Academic Planning

Goals and objectives for IT shall follow academic and institutional goals. Academic and institutional goals shall drive priority setting and investments for IT. Linkages between IT and academic program initiatives shall be documented in the IT master plans.

27.06 Relationship of IT Planning to Capital Construction Planning

Governing boards, INSTITUTIONS, OR BOTH may CONTINUE TO request State capital construction funding through the commission in balance with the capital construction needs of their institutions. Such requests shall be submitted in accordance with CCHE policy and guidelines for capital construction requests. All capital funding requests subsequent to January 1, 2002, must cite a current IT master plan. **(Jeff—Any thoughts about guidelines for IT capital construction requests—i.e., state funding for infrastructure, but not for instructional technology, or what?)**

27.07 Relationship of Higher Education IT Planning to State IT Planning

State-level IT plans and initiatives shall be factored into the strategic IT planning process for the commission and each institution. The CCHE CIO shall participate in and be informed of the activities in State IT planning forums, including the State CIO Forum, the Information Management Commission, and other appropriate venues.

The commission's annual IT report shall serve as a document for discussion with the Office of Innovation and Technology, the Information Management Commission, and the Office of the State CIO to seek mutually beneficial collaboration and coordination for IT initiatives.

III. LONG-RANGE FACILITIES MASTER PLANNING APPENDIX SUPPORTING DATA FORMATS

Forms III, A through C were adopted in 1982 as part of the CCHE Statewide Postsecondary Education Master Planning Manual.

These facilities data summaries have been moved from CCHE Policy Manual Part B (Institutional Master Planning Guidelines) to Part D (Long-Range Facilities Master Planning Guidelines)

FORM III: Facilities Data Summary

PART A: Room Utilization
PART B: Building Inventory
PART C: Construction and Utilization Summary

FORM III - PART A

FACILITIES DATA SUMMARY - ROOM UTILIZATION[1]

INSTITUTION:_____

CODE	ROOM USE CATEGORIES	TOTAL ASSIGN SQ FT[2] (1)	INSTRUCTION PROGRAM (2)	ORGANIZED RESEARCH (3)	PUBLIC SERVICE (4)	ACADEMIC SUPPORT (5)	STUDENT SERVICES (6)
100	Classroom Facilities						
210	Class Laboratory						
220	Special Class Laboratory						
230	Individual Study Lab						
250	Nonclass Laboratory						
300	Office Facilities						
400	Study Facilities						
500	Special Use Facilities						
600	General Use Facilities						
700	Supporting Facilities						
800	Health Care Facilities						
900	Residential Facilities						
	Total Facilities in Use						
000	Unclassified Facilities						
	Total Assignable Area						

1. This data should be derived from the most recent available version of the institution's Facilities Inventory (A-1) report.
2. The total represents the sum of columns (2) through (9).

FORM III - PART A (Continued)

CODE	ROOM USE CATEGORIES	INST. SUPPORT (7)	INDEPENDENT OPERATIONS (8)	UNASSIGNED (9)	LIBRARIES[3] (10)	TEACHING HOSPITAL[3] (11)	ACAD ADM/ PERSON DEV[3] (12)
100	Classroom Facilities						
210	Class Laboratory						
220	Special Class Laboratory						
230	Individual Study Lab						
250	Nonclass Laboratory						
300	Office Facilities						
400	Study Facilities						
500	Special Use Facilities						
600	General Use Facilities						
700	Supporting Facilities						
800	Health Care Facilities						
900	Residential Facilities						
	Total Facilities in Use						
000	Unclassified Facilities						
	Total Assignable Area						

3. Included as part of Academic Support.

FORM III - PART A (Continued)

CODE	ROOM USE CATEGORIES	INTER-COLL ATHLETICS[4] (13)	HEALTH SERVICES (14)	STUDENT HOUSING SER[4] (15)	PHYSICAL PLANTS (16)	FACULTY/STAFF HOUSING SER[5] (17)
100	Classroom Facilities					
210	Class Laboratory					
220	Special Class Laboratory					
230	Individual Study Lab					
250	Nonclass Laboratory					
300	Office Facilities					
400	Study Facilities					
500	Special Use Facilities					
600	General Use Facilities					
700	Supporting Facilities					
800	Health Care Facilities					
900	Residential Facilities					
	Total Facilities in Use					
000	Unclassified Facilities					
	Total Assignable Area					

4. Included as part of Student Services.
5. Included as part of Institutional Support.

FORM III - PART B
FACILITIES DATA SUMMARY - BUILDING INVENTORY[1]
INSTITUTION:_____

DATA CATEGORY	ASSIGNABLE AREA SQ. FT.	GROSS AREA SQ. FT.
CONDITION Satisfactory Remodeling A Remodeling B Remodeling C Demolition Termination Sub-Total		
OWNERSHIP Owned Fee Simple Institution Amortizing Holding Company Amortizing Leased or Rented Nominal Rate Not Owned, Shared Non-Postsecondary Not Owned, Shared Other Postsecondary Sub-Total		
YEAR OF CONSTRUCTION Pre-1900 1900-1930 1931-1950 1951-1960 1961-1970 1971-1980 1981-~~Present~~1990 1991-2000 2000-PRESENT Sub-Total		
TOTAL		

1. Data derived from Part A of CCHE Facilities Inventory (A-1) Report.

FORM III - PART C
FACILITIES DATA SUMMARY - CONSTRUCTION AND UTILIZATION SUMMARY
INSTITUTION:_____

Error! Bookmark not defined.PLAN SUMMARY	Total ASF	Classroom & Service 100 Series	Laboratory & Service 200 Series	Office & Service 300 Series	Library & Study 400 Series	Special Use 500 Series	General Use 600 Series	Support Services 700 Series	Student Services 900 Series
1. Space Available									
2. Space Required									
3. Surplus/(Deficit)									
4. Plan Recommendation: Net Space to be Removed Space to be Used (No or Minor Remodeling) Net Space to be added (New Construction)									
Final Space Configuration of Plan									

TOPIC: **REPORT ON OUT-OF-STATE INSTRUCTION**

PREPARED BY: **ANDREW BRECKEL III**

I. SUMMARY

The Commission holds statutory responsibility to approve instruction offered out-of-state beyond the seven contiguous states. By action of the Commission in 1986 the Executive Director may act for the Commission to approve or deny requests from governing boards for approval of courses and programs to be offered by their institutions. This agenda item includes additional instruction that the Executive Director has certified as meeting the criteria for out-of-state delivery. It is sponsored by the Trustees of The State Colleges and the Board of Regents of the University of Colorado.

II. BACKGROUND

Prior to 1983, instruction out-of-state was offered at will by Colorado institutions, primarily through the Extended Studies Program, but an Attorney General opinion of July 3, 1980, concluded that there was no authorizing legislation and out-of-state programs were discontinued. In 1983, the General Assembly enacted legislation that authorized non-state-funded out-of-state instruction but also required governing board approval. When the instruction is beyond the contiguous states, Commission approval is required as well.

At its meeting of May 2, 1986, the Commission delegated authority to the Executive Director to determine when out-of-state instruction beyond the contiguous states complies with statutory requirements. In June 1986, the Commission received the first notification of out-of-state instruction certified by the Executive Director. Additional approved out-of-state instruction is reported to the Commission as it is received and reviewed.

III. ACTION

The Executive Director has approved the following out-of-state instruction.

The Trustees of The State Colleges has submitted a request for approval of a course to be delivered by Adams State College:

ED 589: Land of the Maya: Examining Culture and Ethnomathematics to be delivered from March 7 through April 18, 2001, in Yucatan, Mexico.

The Board of Regents of the University of Colorado has submitted a request for approval for a course to be delivered out-of-state by the University of Colorado at Colorado Springs.

National Soccer Coaches Association of America (NSCAA) National and Advanced diploma courses to be offered at various locations within the United States beginning January 2001**.**

SPED 595-2/SPED 495-2, Reaching the Tough to Teach Summer Institute, A series of workshops offered in Texas, Michigan, Florida, Tennessee, Georgia and Virginia during a one-year period.

APPENDIX A

STATUTORY AUTHORITY

The Commission is given responsibility for approval of out-of-state instruction beyond the contiguous states in C.R.S. 23-5-116.

TOPIC: **CONCEPT PAPERS**

PREPARED BY: **WILLIAM G. KUEPPER**

I. SUMMARY

This agenda item presents the concept paper(s) submitted to the Commission during the past month:

M.S. in *Recording Arts at the University of Colorado at Denver*
B.S. in *Liberal Studies at the University of Southern Colorado*

This report includes a summary of the issues identified by CCHE staff and a copy of the concept paper. No action is required of the Commission at this time, but if the Commission wishes to have additional issues addressed or questions answered in the full proposal, these can be added to those in the staff report.

II. BACKGROUND

Approval by the Commission of a new degree program proposal is a two-stage process. The governing boards submit a concept paper to the Commission that provides an opportunity for the Commission to identify potential state issues prior to developing the full proposal. In contrast, the full proposal includes details about curriculum, financing, capital construction needs, and other implementation details.

Stage 1: Concept Paper

Before an institution develops a full proposal, the governing board or its staff shall submit a short concept paper to CCHE that outlines the proposed program goals, the basic design of the program, the market it plans to serve, and the reasons why the program is appropriate for the institution and its role and mission. CCHE policy does not require the governing board to approve the concept paper.

After the Commission staff reviews the concept paper, a staff member meets with representatives of the governing board to discuss issues and concerns related to the proposed degree. The staff presents the issues that need to be addressed in the full degree program proposal. A concept paper may be submitted by the governing board at any time and may be included on any Commission agenda.

Stage 2: Full Degree Proposal

The full proposal for a new degree program reaches the Commission only after undergoing review by, and receiving approval from, the governing board. The request for new degree approval must include:

- A complete degree program proposal as defined by the governing board policy.
- The institution's responses to the peer review comments.
- Tables of enrollment projections, physical capacity estimates, and projected expense and revenue estimates.
- An analysis by the governing board of the potential quality, capacity, and cost-effectiveness of the proposed degree program.
- The governing board's response to the issues identified in the Commission's review of the concept paper.

In addition, graduate degree programs require review by an external consultant. The Commission staff selects and contacts the external consultant; the governing board staff reviews the list of potential reviewers.

Once the governing board approves a proposal, the Commission staff prepares an analysis of the proposal, an institutional profile giving additional context for the institution's capacity and market demand, and a recommendation based on the statutory criteria.

The Commission only considers degree proposals at its January or June meetings. This provides the Commission an opportunity to examine the proposals in the context of statewide need.

TOPIC: **CONCEPT PAPER: MASTER OF SCIENCE (M.S.) IN RECORDING ARTS AT THE UNIVERSITY OF COLORADO AT DENVER**

PREPARED BY: **WILLIAM G. KUEPPER**

I. BACKGROUND

The University of Colorado at Denver has submitted a concept paper for a Master of Science (M.S.) degree in Recording Arts. The proposed degree is "designed to prepare students for audio applications to the field of mass communications, education, arts and the entertainment industries. It will contain a core curriculum, several specializations or focus areas, and have both a thesis and non-thesis or portfolio option. The graduate program will build on the university's undergraduate emphasis in Music Technology and Sound Synthesis started in 1974, one of the first such programs in the United States. It will utilize UC-Denver's considerable physical resources in audio engineering. The M.S. in Recording Arts has been included as a priority in UC-Denver's academic planning report.

The concept paper points out the expanding use of "technically complex" audio applications in science film, broadcasting, education, and performance and the need for an increased level of training for people entering the field. It also notes that the Denver Metropolitan area is an important "center of activity in cable television, media production, performing arts, film and broadcast production, and audio research and manufacturing." This would appear to provide not only important resources, e.g., internships and adjunct faculty, to the program but employment opportunities for program graduates.

Mission and program duplication do not appear to be issues with the proposed degree. The mission of the University of Colorado at Denver includes providing "selected professional programs and such graduate programs at the master's and doctoral level as will serve the needs of the Denver Metropolitan area. It is the only institution on the Auraria campus authorized to offer graduate work. Further, within its undergraduate degree program in music, UC-Denver already has large and growing specializations in Music Industry Studies and Music Engineering
No institution in Colorado currently offers a graduate program in this field, and no other has indicated an intention to do so in its current academic planning report.

II. ISSUES TO BE ADDRESSED IN PROPOSAL

After discussions between Commission staff and representatives of the governing board and the institution, it was agreed that the following would be included in a full proposal for a Master of Science degree in Recording Arts.

1. The specific advantages in the job market someone holding the Master's degree would have over those holding only a baccalaureate degree in this field.

2. Data supporting the contention that there is a significant demand for the new degree, especially in the light of very few such programs in the U.S.

3. How the proposed program will meet identifiable needs of the modern technologically oriented society.

4. The nature and extent of "financial participation" of commerce and industry in support of the program

5. Elaboration of the "core" curriculum and the several specializations in the program.

6. The nature and significance of internships in the program.

7. A description of procedures to be used in evaluating program quality and assessing student learning outcomes.

8. Further discussion of the faculty resources needed for the program, including the projected use of adjunct or part-time faculty.

9. Facilities needed for the program, their availability on the Auraria campus, and any consideration being given to locating the program at the Lowry camppus.

III. INFORMING THE GOVERNING BOARD

Following this meeting, the Commission shall inform the governing about the above matters, and any additional issues that the Commission may raise about the proposed Master of Science in Recording Arts at the University of Colorado at Denver.

TOPIC: **CONCEPT PAPER: BACHELOR OF SCIENCE IN LIBERAL STUDIES AT THE UNIVERSITY OF SOUTHERN COLORADO**

PREPARED BY: **JOANN EVANS AND WILLIAM G. KUEPPER**

I. BACKGROUND

The University of Southern Colorado (USC) has submitted a concept paper for a Bachelor of Science (B.S.) degree in Liberal Studies. The proposed degree is "designed to address the needs of elementary education preservice teachers," and to "meet all mandates of SB154 and the Performance-Based Standards for Colorado Teachers." The four basic goals of the program are the acquisition, construction, communication, and application of knowledge. Although its fundamental purpose is the education of teachers, the program will have a track available for students wishing to do a broad-based liberal arts degree.

The curriculum will have four components: General Education (35 hours); Liberal Studies Core (33 hours); Liberal Studies Area of Concentration (12 hours); and Elementary Education or Disciplinary Minor (40 hours). The 68 credits required in general education and the liberal studies core are all taken in specified courses, almost all at the lower level, so that students going through the program will have a substantial common content knowledge base.

If the proposed program is approved, it will replace other degree programs currently enrolling students seeking elementary certification. Approximately 200 students are currently enrolled in teacher education courses at USC, and the institution estimates that 250 freshmen and sophomores are interested in elementary education.

Mission and program duplication do not appear to be issues with the proposed degree. The statutory mission of the University of Southern Colorado includes offering a "limited number of … education programs, and traditional liberal arts and sciences." CCHE is reviewing all teacher education programs and has recently completed a site visit to USC. At present, the site team's report is being developed. Commission staff view this type of program as a logical response to changes being made in teacher education requirements.

The B.S. in Liberal Studies is included in the academic priorities in USC's academic planning report, a report approved by the State Board of Agriculture.

II. ISSUES TO BE ADDRESSED IN PROPOSAL

After discussions between Commission staff and representatives of the governing board and the institution, it was agreed that the following would be included in a full proposal for a Bachelor of Science in Liberal Studies.

1. How the program will relate to and serve the region in which the university is located.
2. How the proposed curriculum takes advantage of the particular strengths of the institution.
3. Evidence of the alignment of the curriculum with K-12 content standards.
4. An explanation of why almost all of the credits required in general education and the liberal studies core are in lower division courses.
5. Clarification of the use of the term "minor" for the 40 credits of required education courses or the required disciplinary emphasis.
6. An example of the third and fourth year curriculum to be followed by students taking the program as a liberal arts degree.
7. Explain why the proposed program leads to a B.S. rather than a B.A.
8. Scheduling of the field experiences and how they will be integrated with content knowledge.
9. Additional information on the assessment of learning outcomes, including the assessment of students in their field experiences and assessment of those students not pursuing certification.
10. Points of admission, criteria for admission, and how students will be screened for admission to the program.
11. The advising process and how it assures that students will have a clear understanding of program expectations.
12. The future of those programs currently being used to prepare students for elementary certification.

III. INFORMING THE GOVERNING BOARD

Following this meeting, the Commission shall inform the governing board about the above matters, and any additional issues that the Commission may raise about the proposed Bachelor of Science in Liberal Studies at the University of Southern Colorado.