

CCHE Agenda  
May 2, 2002  
[University of Colorado Health Sciences Center](#)  
Anschutz Outpatient Pavilion, Room 2005-2006, Fitzsimons Campus  
Denver, Colorado  
10:00 a.m.

I. Approval of Minutes

II. Reports

- A. Chair's Report - Lamm
- B. Commissioners' Reports
- C. Advisory Committee Reports
- D. Public Comment

III. Consent Items

- A. Report on Low Enrollment Programs - Samson

IV. Action Items

- A. Resolution of Dispute Among Community College of Denver, Metropolitan State College of Denver, and University of Colorado at Denver - Kieft (30 minutes)
- B. Adoption of Criteria for "State Guaranteed" General Education Courses – Samson (20 minutes)
- C. Colorado/New Mexico Reciprocity Agreement - Kuepper (10 minutes)

V. Items for Discussion and Possible Action

- A. Remedial Plan Amendments and Revisions - Samson (15 minutes)
- B. Overview of FY 2002-2003 JBC Budget Recommendation for Higher Education - Burnett (10 minutes)
- C. CCHE-Technology Advancement Group Program Funding for 2002-2003 - Hum (15 minutes)
- D. Colorado State University (CSU) Student Housing Project – Johnson (30 minutes)

VI. Written Reports for Possible Discussion

- A. Report on Reciprocity Agreements - Kuepper
- B. Report on Out-of-State Instruction - Breckel
- C. Concept Papers - Kuepper
  - 1. Master of Computer Science at Colorado State University - Kuepper

Colorado Commission on Higher Education (CCHE)

May 2, 2002

Agenda Item II, A

**TOPIC: CHAIR'S REPORT**

**PREPARED BY: PEGGY LAMM**

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)  
May 2, 2002  
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)

May 2, 2002

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)  
May 2, 2002  
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: REPORT ON LOW DEMAND PROGRAMS**

**PREPARED BY: SHARON M. SAMSON**

**I. SUMMARY**

CCHE’s Low Demand Policy empowers the governing boards to take action on those degree programs that do not demonstrate sufficient student demand -- requiring governing board action after a program is three consecutive years on the low demand list. Depending on the size of the institution, the policy allows the governing board to exempt a limited number of undergraduate degree programs that are central to the institution’s role and mission. During 2002, the governing boards took several actions pertaining to low demand degree programs, ranging from discontinuing a degree program to changing the number of exemptions.

Table 1: Status of Degree Programs 2002 summarizes the current status of low demand programs at each institution by size of institution. Table 2: 2002 Status Report on Low-Demand Degree Programs (attached) provides detailed information on the degree programs that have been identified as low demand.

Table 1: Status of Degree Programs 2002 Offered by Four-year Institutions

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>INSTITUTION</b>	<b>LOW DEMAND PROGRAMS</b>	<b>NUMBER EXEMPT</b>	<b>NUMBER OF ALLOWABLE EXEMPTIONS</b>	<b>NON-EXEMPT LOW DEMAND (GB action by 2003 or 2004)</b>	<b>NUMBER OF APPROVED DEGREES</b>
ASC	6	5	5	1	23
CSM	6	2	5	4	51
FLC	6	4	5	2	26
MESA	1	0	5	1	36
UCCS	3	2	5	1	45
UCD	4	4	5	0	80
UCHSC	0	0	5	0	28
USC	5	3	5	2	32
WSC	2	2	5	0	23
<b>Large Institutions – Enrolling &gt; 5,000 undergraduate FTE</b>					
CSU	5	4	3	1	166
METRO	5	3	3	2	49
UCB	5	2	3	3	152
UNC	4	4	3	0	89

Column 2 includes the total number of active programs that are identified as low demand (sum of column 3 and 5). Column 3 lists the number of exempt low demand undergraduate programs. Column 4 lists the allowable number of exemptions. Column 5 lists the number of non-exempt degree programs operating below the benchmark, specifically those that need governing board action in 2003 or 2004. Column 6 lists the total number of approved degree programs. Column 2 is the most important column for governing boards of large institutions to monitor.

In summary, it appears that the governing boards are actively involved in the activities of their respective low demand degree programs. No Commission action is needed in 2002. It is noted, however, the governing boards of large institutions will be facing significant decisions in 2003 if the non-exempt low demand degree programs fail to meet the low demand benchmark next year.

## **II. BACKGROUND**

CCHE policy empowers governing boards to intervene and take action on low demand degree programs. To support the governing boards, CCHE staff provided data on low demand degree programs in February. The February agenda item gives public notice of degree programs that need action. The Commission expects each governing board to take the appropriate action prior to April 1. In February, the Commission received the data on low-demand degree programs, i.e., those that failed to meet the minimum graduation benchmarks as defined in policy.

In 2001, the low demand review identified six degree programs that are operating below the benchmarks. CCHE policy defines a low demand undergraduate degree as a degree program that fails to graduate at least 10 students in the current year or a total of 20 students in the past three years. The benchmark for masters' degree programs is three graduates per year or a total of five in the past three years. The doctoral program benchmark is one graduate per year or a total of three in the past three years. Each institution may exempt up to five undergraduate degree programs that are central to the institution's role and mission (Attachment A). In 2002, the low demand review identified an additional degree programs that are operating below the benchmarks.

The public notice also encouraged governing boards of large institutions (i.e., those with undergraduate FTE enrollment greater than 5,000) to make decisions in the context of moving toward three exemptions. In the context of this policy, the large institutions include Colorado State University (CSU), Metropolitan State College of Denver (Metro), the University of Colorado at Boulder (UCB), and the University of Northern Colorado (UNC). Currently, UCB, UNC and CSU have exempted four and Metro has three exempt degree programs. The governing boards of these institutions pledged to move voluntarily to three exemptions for these institutions.

### **III. STAFF ANALYSIS**

The governing boards have been actively involved in those degree programs that exhibit low demand. Institutions that have discontinued low demand degree programs have filed reports regarding the transition strategies, primarily regarding informing currently enrolled students and offering courses so that these students can graduate expeditiously. The statute allows an institution to phase-out a degree program during a four-year period, but they may not admit students to the degree during the phase-out.

#### **THE BOARD OF TRUSTEES FOR THE UNIVERSITY OF NORTHERN COLORADO**

The UNC Board of Trustees has modified its list of exemptions by removing German from the exemption list (it currently meets the graduation benchmark) and adding Physics, BA. The faculties of the respective departments, the Dean of the College, and the Provost UNC have reviewed the four low-demand degree programs. Physics has undergone a full program review. In notifying CCHE of the new exemption, UNC provided a rationale for why it decided to retain this degree as central to its role and mission.

The exempted programs include:

- Mexican American Studies, BA
- French, BA
- Physics, BA
- Africana Studies, BA

The UNC Trustees will need to reduce the number of exemptions to three in the near future.

#### **THE STATE BOARD OF AGRICULTURE**

The governing board did not take action or modify its exemptions in 2002. It was not required to act on any degree programs in 2002.

CSU's exempted programs include:

- Bio-Agricultural Science, BS
- Bio-resource/Agricultural Engineering, BS
- Consumer & Family Studies, BS
- Engineering Science, BS

CSU has exercised four exemptions although one of its exemptions – Bio-resource/ Agricultural Engineering has met the graduation benchmark and could be removed from the list if the governing board so chooses.

CSU's non-exempt degree programs that are operating below the benchmark include:

- Botany, BS. Governing board action by 2004.

#### **FORT LEWIS COLLEGE**

FLC's exempted programs include:

- Economics, BA
- Philosophy, BA
- Physics, BA
- Southwest Studies, BA

FLC's non-exempt degree programs that are operating below the benchmark include:

- Music, BA. Governing board action by 2004.
- Theatre, BA. Governing board action by 2004.

#### **UNIVERSITY OF SOUTHERN COLORADO**

USC's exempted programs include:

- Business Economics (BS/BA)
- History, BA
- Physics, BS

USC's non-exempt degree programs that are operating below the benchmark include:

- Mathematics, BS. Governing board action by 2004.
- Electronics Engineering Tech, BS. Governing board action by 2004.

#### **THE TRUSTEES FOR THE COLORADO SCHOOL OF MINES**

The governing board did not take action in 2002. It was not required to act on any degree programs in 2002.

CSM's exempted programs include:

- Geological Engineering, PE
- Geophysical Engineering, PE

CSM's non-exempt degree programs that are operating below the benchmark include:

- Chemistry, MS. Governing board action by 2004.
- Physics, MS. Governing board action by 2004.
- Geological Engineering, Ph.D. Governing board action by 2004.
- Geochemistry, Ph.D. Governing board action by 2004.

## **THE TRUSTEES FOR THE STATE COLLEGES**

### **ADAMS STATE COLLEGE**

On February 8, the Stat Trustees modified ASC's list of exempted degree programs to include:

- Chemistry, BA/BS
- Geology, BA/BS (new exemption)
- Music, BA
- Spanish, BA
- Speech-Theatre, BA

With this action, ASC has exercised its full five-exemptions.

ASC non-exempt degree programs that are operating below the benchmark include:

- Mathematics (BA/BS). Governing board action by 2004.

### **MESA STATE COLLEGE**

Mesa State College has one degree program operating below the benchmark

- Mathematics, BS. Governing board action by 2004.

It has not exercised any of its five allowable exemptions.

### **METROPOLITAN STATE COLLEGE OF DENVER**

The Trustees did not modify the list of Metro's exempt degree programs. They include:

- Chicano Studies, BA
- Surveying & Mapping, BS
- Physics (BA/BS)

Metro is within the three-exemption mark for institutions that enroll a large number of undergraduate students. However, it has one additional degree program that is under a three-year extension.

Metro’s non-exempt degree programs that are operating below the benchmark include

1. Music (BA/BFA). Governing board action by 2004.
2. African American Studies (3-yr. Extension with annual progress reports). Extension expires 2004.

In 2000 the Commission modified its policy to allow Metro to exempt its African American Studies degree. The former exemption criterion required at least one graduate in the current year. The current exemption criterion requires at least three graduates in the past three years. The policy action responded to Metro’s appeal in April 2000 that it would have exempted African American Studies but the degree program had not graduated any students in the most recent year. Metro’s African American Studies degree program graduated a total of three students in fiscal years 1997, 1998, and 1999, making it eligible for exempt status under the new policy. As a result, the Trustees for the State Colleges designated African American Studies as one of Metro’s five exemptions in 2000. However, in 2001, the degree became ineligible since only two students graduated in the past three years. The program lacked sufficient graduates for exemption status.

<b>AFRICAN AMERICAN STUDIES B.A.</b>	<b>FY 1996</b>	<b>FY 1997</b>	<b>FY 1998</b>	<b>FY 1999</b>	<b>FY 2000</b>	<b>FY 2001</b>	<b>3 Yr Total</b>
Enrollment				6	10	12	
Degrees Granted	3	2	1	0	1	2	3

In 2001, CCHE staff recommended approving the governing board’s request for a three-year extension, with the understanding that the (1) Metro provide the requested data before the April Commission meeting; and (2) the third year of the extension is contingent upon Metro’s degree program demonstrating reasonable progress in enrolling and graduating a sufficient number of students. The Commission pledged to monitor the graduation progress of African American Studies program annually. Based on the data, CCHE staff recommend continuing African American Studies’ exemption status.

**WESTERN STATE COLLEGE**

The Trustees removed Economics, BA from the list of exempt degree programs (it exceeded the minimum graduation criteria graduating 16 students in 2001). Western’s exempt low-demand degree programs include:

- Chemistry, BA
- Music, BA

Western is within its five-exemption mark.

## **REGENTS OF THE UNIVERSITY OF COLORADO**

### **UNIVERSITY OF COLORADO AT BOULDER**

On February 13, the Regents reduced UCB's list of exempted degree programs to two, including:

- Asian Studies, BA
- Italian, BA

With this action, UCB is within the three-exemption mark for institutions that enroll a large number of undergraduate students.

UCB non-exempt degree programs that are operating below the benchmark:

1. Distributive Studies, BA (action by Spring 2004)
2. Comparative Literature, MA (action by Spring 2004)
3. Communications, MA (extension to Spring 2003)

In April 2000, the Regents of the University of Colorado, on behalf of the University of Colorado at Boulder, filed an appeal for a one-year extension for UCB's Communication M.A. degree. In April 2001, the Commission approved a two-year extension for the Communications program based in part on the commitment of the CU system and UCB that they would voluntarily discontinue this program in 2003 if it does not achieve the minimum graduation numbers -- 3 graduates per year or 5 in the most recent three years reported. UCB will need to graduate at least two students to demonstrate that a masters' degree in Communication has sufficient demand to sustain the degree program. Typical with a research university, the students pursue a doctorate in Communication. Until recently, the masters' degree was conferred only if a student did not meet the graduation requirements of the doctoral degree program.

<b>COMMUNICATION MA</b>	<b>FY 1996</b>	<b>FY 1997</b>	<b>FY 1998</b>	<b>FY 1999</b>	<b>FY 2000</b>	<b>FY 2001</b>	<b>3 Yr Total</b>
Enrollment	0	0	0	1	5	5	
Degrees Granted	3	2	1	0	1	2	3

### **UNIVERSITY OF COLORADO AT COLORADO SPRINGS**

No change in two designated exemptions.

UCCS's Allied Health baccalaureate degree program is operating below the undergraduate degree program benchmark. The governing board must take action by Spring 2003.

While eligible for five exemptions, UCCS has exempted two degree programs.

### **UNIVERSITY OF COLORADO AT DENVER**

No change in four designated exemptions. UCD's Vice-Chancellor for Academic Affairs has a memorandum of understanding with the French, German and Geology departments that their low demand undergraduate degrees will be granted exemptions only until 2003. UCD is discussing the possibility of creating a coordinated Physics degree with Metropolitan State College. The discussions appear to be stalled at the faculty level. In the meantime, UCD will keep its Physics degree on the exempt list. Because of institutional actions, there is no required governing board action.

While eligible for five exemptions, UCD has exempted four degree programs.

In summary, the following six institutions are within the policy exemption limit, including potentially exempting a non-exempt low demand undergraduate program in the future: Mesa, UCCS, UCD, UCHSC, USC, and WSC. Seven institutions will need to take some action in the near future if there is no change in graduation rates: ASC, CSM, FLC, CSU, METRO, UCB, and UNC. CSM, CSU, and UCB have graduate programs that are below the benchmark and may not exempt these degrees. CSU, METRO and UNC will need to reduce the number of exemptions to 3.

### **III. STAFF RECOMMENDATION**

No Commission action needed.

**Appendix A**

**STATUTORY AUTHORITY**

C.R.S. 23-1-107 (2) reads:

- a) The commission shall establish, after consultation with the governing boards of institutions, policies and criteria for the discontinuance of academic or vocational programs. The commission shall direct the respective governing boards of institutions, including the board of regents of the university of Colorado, to discontinue an academic or vocational degree program area, as program area is defined in commission policies.
- b) The governing board of a state-supported institution of higher education directed to discontinue an academic or vocational degree program area pursuant to this subsection (2) shall have not more than four years to discontinue graduate and baccalaureate programs and not more than two years to discontinue associate programs following the commission's directive to phase out said program area.
- c) If the commission directs the governing board of an institution to discontinue an academic or vocational degree program area, and the governing board refuses to do so, the commission may require such governing board to remit to the general fund any moneys appropriated for such program area.
- d) Each governing board of the state-supported institutions of higher education shall submit to the commission a plan describing the procedures and schedule for periodic program reviews and evaluation of each academic program at each institution consistent with the role and mission of each institution. The information to be provided to the commission shall include, but shall not be limited to, the procedures for using internal and external evaluators, the sequence of such reviews, and the anticipated use of the evaluations.
- e) Prior to the discontinuance of a program, the governing boards of state institutions of higher education are directed, subject to commission approval, to develop appropriate early retirement, professional retraining, and other programs to assist faculty members who may be displaced as a result of discontinued programs.
- f) The commission shall assure that each institution has an orderly process for the phase-out of the programs.

**Table 1: 2002 Status Report on Low-Demand Degree Programs**

<b>INSTITUTION</b>	<b>EXEMPTED PROGRAMS</b>	<b>2001 STATUS</b>
Adams State College	Chemistry, BA/BS Geology, BA/BS Music, BA Spanish, BA Speech-Theatre, BA	Exempt
	Mathematics, BA	Below benchmark (Action by Spring 2004)
Colorado School Of Mines	Geophysical Engineering, PE Geological Engineering, PE	Exempt
	Chemistry, BS Physics, MS Geological Engineering, Ph.D Geochemistry, Ph.D	Below benchmark (Action by Spring 2003).
Colorado State University	Bio-Agricultural Science, BS Bio-resource/Agricultural Engineering, BS Consumer & Family Studies, BS Engineering Science, BS	Exempt
	Design & Merchandising, MA	Closed June 2001.
	Botany, BS	Below benchmark (Action by Spring 2004)
Fort Lewis College	Economics, BA Philosophy, BA Physics, BA Southwest Studies, BA	Exempt
	Music Theatre	Below benchmark (Action by Spring 2004)
Mesa State College	Mathematics	Below benchmark (Action by Spring 2004)
	Selected Studies	Closed Spring 2001
Metropolitan State College of Denver	African American Studies, BA	THREE-YEAR EXTENSION (Spring 2004)
	Surveying and Mapping, BS Chicano Studies, BA Physics, BA/BS	Exempt
	Music/Music Performance, BA/BFA	Below benchmark (Action by Spring 2004)
University of Colorado at Boulder	Asian Studies, BA Italian, BA	Exempt
	Distributive Studies Comparative Literature	Below benchmark (Action by Spring 2004)
	Communications MA	Two-Year Extension (Spring 2003)

University of Colorado at Colorado Springs	Physics, BS Spanish, BA	Exempt
	Allied Health, BS	Below benchmark (Action by Spring 2003)
University of Colorado at Denver	French, BA German, BA Geology, BS Physics, BS	Exempt
University of Northern Colorado	Africana Studies, BA French, BA Mexican American Studies, BA Physics, BA	Exempt German removed from exemption list Spring 2002
University of Southern Colorado	Business Economics, BS/BA History, BA Physics, BS	No change
	Recreation, BS	Closed October 2001
	Electronics Engineering Tech, BS Mathematics, BS	
Western State College	Chemistry, BA Music, BA	Exempt Economics removed from exemption list Spring 2002
	Physics, BA	Closed

**TOPIC: RESOLUTION OF DISPUTE AMONG THE COMMUNITY COLLEGE OF DENVER, METROPOLITAN STATE COLLEGE OF DENVER, AND THE UNIVERSITY OF COLORADO AT DENVER**

**PREPARED BY: RAY KIEFT**

**I. BACKGROUND**

During its April 5, 2002 meeting, the Commission heard testimony from the Auraria Higher Education Center (AHEC) Board chair Spaulding, Board of Trustees of the State Colleges in Colorado (SC in C) chair Mingilton, President May of the Community Colleges of Colorado (CC of C), President Johnson of the Community College of Denver (CCD), President Kaplan of Metropolitan State College of Denver (MSCD), and Chancellor Lesh-Laurie of the University of Colorado at Denver (UCD). Their testimonies focused on the dispute over which institution should retain the revenue from the tuition paid by MSCD and UCD students who enroll in basic skills courses taught by CCD. The testimonies included such propositions as: (1) there is no dispute to be resolved, (2) status quo should be continued, (3) if there is a dispute, it should be resolved by the AHEC Board and not the Commission, (4) CCD should withdraw from the current inter-institutional registration agreement, (5) 100% of the revenue should be retained by CCD, and (6) the retention of the revenue should be retroactive for FY 2001-02. At the conclusion of the testimony, Commissioners urged the parties involved in the dispute to commit to resolving the dispute among themselves and to accomplish the resolution prior to the May 3, 2002 meeting of the Commission. If resolution was not reached, Commissioners indicated that the Commission intended to impose a resolution consistent with its statutory authority to resolve disputes at Auraria (CRS 23-70-106.5). This resolution would be one that would (1) be in the best interests of students, (2) guarantee the permanency of the inter-institutional agreement, and (3) clarify certain aspects of the dispute that had been misrepresented in testimony (e.g., tuition isn't cash, institutions can't or won't serve as fiscal agents for other institutions).

Staff has reviewed the oral and written testimony given to the Commission, considered enrollments associated with inter-institutional registration among the three institutions, examined state, OSPB, and JBC fiscal rules and procedures, reviewed tuition rates of the three institutions, and examined institutional policies and procedures related to inter-institutional registration among the three institutions. Staff did not examine the status of the implementation of a common assessment instrument by the three institutions. Such an examination will be forthcoming as a separate agenda item. Related to this examination will be a review of the reasons for the large decrease in MSCD students registering for CCD basic skills courses during AY 2001-02 as compared to AY 2000-01.

Staff believes that:

1. A dispute among the three Auraria institutions does exist which the Commission has the statutory responsibility and authority to resolve.
2. The *Auraria Memorandum Of Agreement* (1989) agreement, among the three Auraria institutions, AHEC, CC of C, and the Commission, should be changed and submitted to the Commission for approval.
3. Student interests must prevail over institutional interests in any resolution of this dispute.
4. Students of any one of the three Auraria institutions should not pay a tuition rate greater than the tuition rate for the course in which they enroll.
5. The resolution reached by the Commission should be retroactive for FY 2001-02.
6. There are no state, OSPB, or JBC fiscal rules or procedures prohibiting a governing board or institution serving as a “fiscal agent” for another governing board or institution.
7. Contrary to a statement made to the Commission, tuition revenues are cash funds as defined in the state’s fiscal procedures.

## II. STAFF ANALYSIS

### Student Interests and Institutional Interests

The Commission seeks to adopt policies, procedures, and practices that support its intent to give highest priority to advancing the interests of students. When such policies, procedures, and practices coincide with governing board and institutional interests, usually no conflict arises in the context of decisions by the Commission. However, when student interests and governing board or institutional interests differ, conflict often is inherent in the decisionmaking process of the Commission.

Staff believes that the resolution of the issue of the retention of tuition revenue associated with basic skills courses taught by CCD for MSCD and UCD students places student interests at odds with institutional interests. For example, as their preferred resolution, President Kaplan and Chancellor Lesh-Laurie proposed status quo with no changes to the inter-institutional agreement:

*The Metropolitan State College of Denver and the University of Colorado at Denver together are asking the AHEC board to affirm that “Inter-institutional registration” on the Auraria Campus represents a reasonable balance of interests among MSCD, UCD, and the Community College of Denver and that “Inter-institutional registration” has served well and continues to serve well the thousands of students enrolled at the three Auraria institutions (memorandum from Sheila Kaplan and Georgia Lesh-Laurie to the AHEC Board of Directors, March 25, 2001, page 1).*

*Be it resolved that the Board of Directors of the Auraria Higher Education Center supports the continuation of the current voluntary inter-institutional agreement at Auraria (memorandum from Sheila Kaplan and Georgia Lesh-Laurie to the AHEC Board of Directors, March 25, 2001, PROPOSED RESOLUTION).*

While apparently in the interests of MSCD and UCD, this proposed resolution is not in the interests of students since it does not recognize that MSCD and UCD students are paying more in tuition than CCD charges for its basic skills courses. MSCD and UCD students are, in essence, being overcharged:

- CCD charges \$180.15 in resident tuition for a 3-credit course
- MSCD resident students pay \$229.80 for a 3-credit CCD course
- UCD resident undergraduate students pay \$405 for a 3-credit CCD course.

A second resolution proposed by President Kaplan and Chancellor Lesh-Laurie is withdrawal by CCD from the inter-institutional agreement, even though such a withdrawal would result in what President Kaplan and Chancellor Lesh-Laurie recognize "...would create myriad problems for students":

*MSCD and UCD further agree that CCD can collect tuition for its students who take basic skills courses at CCD by withdrawing from the voluntary inter-institutional agreement. Such action would create myriad problems for students, who would have to register at more than one institution and whose financial aid might be adversely affected, to mention but a few of the negative downsides for students. It would create administrative duplication among the Auraria institutions. And it would contravene the inter-institutional "Spirit of Auraria" that has well-served students for some 30 years (memorandum from Sheila Kaplan and Georgia Lesh-Laurie to the AHEC Board of Directors, March 25, 2002, p. 3&4)*

This proposed resolution is, obviously, not in the best interests of students.

#### Cost of Services to Students

In a letter to President Johnson, President Kaplan and Chancellor Lesh-Laurie state that retention of tuition by MSCD and UCD is necessary to cover the costs of services provided by MSCD and UCD to their students:

*...The home institution provides myriad services to students even when they take classes at another Auraria institution. Hence, the home institution retains the tuition to cover the costs of those services (letter to from Sheila Kaplan and Georgia Lesh-Laurie to Christine Johnson, October 22, 2001, p.1).*

A non-exhaustive list was included in the letter to serve as an example of these services. Staff believe that many of these services are not services provided only because MSCD or

UCD students enroll in a CCD basic skills course. Many services provided in the context of the recruitment, admission, and advisement of new MSCD or UCD students even before the semester begins and certainly before the MSCD or UCD student enrolls in a CCD basic skills course (e.g., processing students' application for admission, evaluating high school/GED transcripts, sending letters of acceptance, evaluating college transcripts, sending transfer evaluations, processing financial aid and scholarship applications, sending replies for financial aid and scholarship applications; sending students registration permit information and class schedules, sending department information, sending orientation information and providing orientation, etc.). These are services provided all new students in advance of the beginning of semester courses.

MSCD students are also limited in the number of credits which they can register for via inter-institutional registration. Only one-half of their total course credits can be in courses taken via inter-institutional registration with a maximum of 6 credits. Thus, whatever is the cost of services provided by MSCD to its students, a significant portion of those costs are not attributable to inter-institutional registration. Adding the fact that the costs of many of the services have little to do with inter-institutional registration, it seems logical to assume that the true cost to MSCD of inter-institutional registration for its students taking CCD basic skills courses is minimal. A similar level of actual costs seems likely to apply to UCD for its students.

#### Governing Boards and Institutions Serving As "Fiscal Agents"

Neither state, OSPB, or JBC fiscal rules or procedures prohibit a governing board or an institution serving as a "fiscal agent" for another governing board or institution. Nevertheless, President Kaplan and Chancellor Lesh-Laurie, in their testimony to the Commission, stated that neither MSCD nor UCD would serve as a "fiscal agent" for CCD. It is unclear to staff whether President Kaplan and Chancellor Lesh-Laurie believe there are prohibitions against institutions serving as "fiscal agents" for each other or if both are unwilling to do so as a matter of principle.

Governing boards already serve as "fiscal agents" for institutions. With no prohibition on serving as a "fiscal agent" for each other, staff believe that the respective governing boards of the three Auraria institutions could serve as "fiscal agents" with each other in terms of the transfer among each other of tuition revenue associated with MSCD and UCD students enrolling in CCD basic skills courses if any institution refused to serve as a "fiscal agent".

#### Credit Hours Produced and Dollars Involved

Total fall and spring semester undergraduate resident and non-resident credit hours produced for the past two academic years by MSCD and UCD students enrolled in CCD basic skills are displayed in Table 1.

TABLE 1

	MSCD		UCD	
	Resident Credit Hrs.	Non-Resident Credit Hrs.	Resident Credit Hrs.	Non-Resident Credit Hrs.
Fall 2001	1,595	113	209	23
Spring 2002	992	41	121	7
<b>AY 2001-02</b>	<b>2,587</b>	<b>154</b>	<b>330</b>	<b>30</b>
<hr/>				
Fall 2000	3,051	99	140	21
Spring 2001	2,380	103	112	12
<b>AY 2000-01</b>	<b>5,431</b>	<b>202</b>	<b>252</b>	<b>33</b>

For AY 2001-02, the credit hours resulted in MSCD collecting \$198,164 in tuition from its resident students and \$49,319 from its non-resident students. If these resident students had paid CCD tuition rates instead of MSCD tuition rates for the CCD courses, \$155,349 would have been collected from resident students and \$44,860 from non-resident students. UCD collected \$44,550 for its resident students and \$22,020 for its non-resident students. These figures compare, respectively, to \$19,817 and \$8,739 if these UCD students had paid the CCD tuition rate. Thus, MSCD students paid \$47,274 more in tuition than if they had paid tuition at CCD rates. Similarly, UCD students paid \$38,014 more.

The reason(s) for the large decrease in the credit hours produced in academic year 2001-02 as compared to academic year 2000-01 ( 51% decrease) by MSCD students enrolling in CCD basic skills courses was not examined by staff. Staff felt that such an examination could not be accomplished in the time afforded to this agenda item but should be accomplished at a later date in the context of monitoring the implementation of a common assessment instrument among the Auraria institutions. A future agenda item will report on this activity.

Proposed Resolution

1. Staff rejects the resolution proposed by MSCD and UCD that CCD withdraw from the inter-institutional agreement. To the contrary, staff believes that student interests would be better served if the 1989 *Auraria Memorandum Of Agreement* was changed. The statute states that a resolution by the Commission is binding on the governing boards and institutions. A resolution by the Commission that includes making changes to the *Auraria Memorandum Of Agreement* would mean that if any of the governing boards or institutions wished to again change it or withdraw from it, they would have to obtain prior approval from the Commission.
2. **Option #1:** The current 1989 *Auraria Memorandum Of Agreement* must be modified by the three Auraria institutions to incorporate two modifications:

- (1a) MSCD and UCD students enrolled in CCD basic skills courses pay CCD tuition rates for these courses, and
- (1b) By January 15 for the fall semester and June 15 for the spring semester, MSCD and UCD remit to CCD 90% of the total revenue from the tuition paid by MSCD and UCD students who enroll in CCD basic skills courses.

This modified agreement must be committed to writing and signed by all three institutions and submitted to the Commission prior to June 1, 2002.

**Option #2:** If Option 1 is not satisfied, the resolution imposed by the Commission requires the following:

- (2a) MSCD and UCD students enrolled in CCD basic skills courses pay CCD tuition rates for these courses, and
  - (2b) By January 15 for the fall semester and June 15 for the spring semester, MSCD and UCD remit to CCD 100% of the total revenue from the tuition paid by MSCD and UCD students who enroll in CCD basic skills courses.
3. This dispute has lasted throughout much of FY 2001-02, having begun in the summer of 2001. Therefore, a resolution that is retroactive to cover the AY 2001-02 is appropriate. A resolution adopted by the Commission must include a requirement that the Trustees of the State Colleges in Colorado provide a payment of \$200,209 to SBCCOE prior to June 1, 2002. Similarly, the Regents of the University of Colorado must provide a payment of \$28,556 to SBCCOE prior to June 1, 2002. These payments reflect 90% of the revenue from tuition paid by MSCD and UCD students to MSCD and UCD that was associated with these students enrolling in CCD basic skills courses during the Fall 2001 and Spring 2002 semesters. If, however, Option #2 becomes operational, the payment is to be adjusted to reflect 100% of the revenue.

### **III. STAFF RECOMMENDATION ([Amended](#))**

**Staff recommends that the Commission exercise its authority to resolve disputes at Auraria (as described in CRS 23-70-106.5) by adopting as its resolution items 1, 2, and 3 of the section of this agenda item entitled “Proposed Resolution” and this action by the Commission be communicated by the Executive Director to the chief executive officer of each affected governing board and institution.**

**Appendix A**

**STATUTORY AUTHORITY**

23-70-106.5 CRS (1) After notification to the affected chief executive officers, which notification provides for a deadline of not more than ten days for the resolution of a dispute, the chief executive officer of any governing board at the Auraria center, including the Auraria board, may request the Colorado commission of higher education to resolve a conflict concerning an academically related issue at the Auraria center. The commission shall have the authority to make the final decision to resolve the issue presented to it or may delegate its responsibility and authority for the final decision of the issue to the Auraria board. The decision of either the commission or the Auraria board shall be binding on all of the governing boards and institutions and on the Auraria board. It is the policy of the general assembly that the commission is encouraged to delegate to the Auraria board, to as great an extent as possible, its authority for making final decisions at the Auraria center.

(2) The chief executive officer of any governing board at the Auraria center, including the Auraria board, may request the Auraria board to resolve a conflict concerning the operation, administration, or use of the physical facilities at the Auraria center. The Auraria board shall have the authority to make the final decision to resolve the issue present to it, and such decision shall be binding on all of the governing boards and institutions and on the Auraria board.

(3) All issues involving interinstitutional disputes at the Auraria center shall be considered as either academically related or operationally related, and the commission is authorized to determine whether it or the Auraria board shall have jurisdiction in regard to the resolution of the dispute.

Staff Recommendation (Amended)

Staff recommends that the Commission respond to the request made to it by the Community Colleges of Colorado for a resolution of the dispute among CCD, MSCD, and UCD by taking the following action:

1. Beginning Summer 2002, and in subsequent semesters, MSCD and UCD will transfer to CCD an amount equal to one-half of the tuition CCD charges per credit hour, times the total number of credit hours of basic skills courses that MSCD and UCD resident student take at CCD.
2. Beginning Summer 2002, and in subsequent semesters, MSCD and UCD will transfer to CCD an amount equal to the non-resident tuition CCD charges per credit hour, times the total number of credit hours of basic skills courses that MSCD and UCD non-resident students take at CCD.
3. Beginning summer 2002, and in subsequent semesters, MSCD and UCD students taking basic skills courses at CCD will be charged the tuition CCD charges per credit hour for those basic skills courses.
4. Prior to June 15, 2002, the Trustees of the State Colleges in Colorado will provide a payment of \$122,535 to SBCCOE.
5. Prior to June 15, 2002, the Board of Regents of the University of Colorado will provide a payment of \$18,647 to SBCCOE.

**TOPIC:                   ADOPTION OF CRITERIA FOR “STATE GUARANTEED”  
GENERAL EDUCATION COURSES**

**PREPARED BY:    SHARON SAMSON**

**I.       SUMMARY**

CCHE staff recommend that the Commission approve the competency criteria recommended by the GE-25 Council in Critical Thinking, Mathematics, Reading, Technology, and Written Communication. CCHE staff recommend that the Commission approve the state goals, definition and criteria recommended by the GE-25 Council in Arts and Humanities, Communications, Mathematics, Natural and Physical Sciences, and Social Sciences. This topic was discussed in greater detail at the April 2002 Commission meeting.

**II.      BACKGROUND**

The background section summarizes the mandates of HB 01-1263 and HB 01-1298. The bill numbers are referenced in ().

**2001 General Education Legislative Mandates**

Commission shall

- Adopt policies and practices as may be necessary for the implementation of general education and common course numbering (1298)
- Convene a council (1298); council goes into sunset review in 2011.
- Establish a standard of 120-hour baccalaureate degree (1263)
- Adopt policies to ensure transferability of courses (1263)
- Develop a plan to implement a core course concept that includes general education course guidelines for all public institutions (1263).
- Submit to Education Committees and JBC progress reports before March 31, 2002 (1298)
- Document students’ success in transferring (1298)
- Design and implement a database to provisions of 1298
- Solicit grants and private donations to implement the course-numbering project and invest in fund at state treasury. All state funds shall remain in the fund and shall not revert (1298).

Governing boards shall

- Modify its existing transfer policies as necessary (1298).

Institutions shall

- Confirm their own general education core course requirements to the Commission's guidelines (1263)
- Identify the specific courses that meet the general education core course guidelines (1263).
- Review courses that correspond to Colorado's common course numbering system (1298).
- Publish and update a list of general education courses that correspond to the state's common course numbering system by fall 2003 (1298)
- Submit its general education courses, including course descriptions, for review and approval by the Commission on or before March 1, 2004 (1298)

Students will

- Receive credit for courses that they test out of free of tuition (1263).

CCHE convened the GE-25 Council in July 2001 to define guidelines for the core framework. The GE25 Committee represents a broad cross-section of higher education, including the governing boards and individual institutions, college presidents, and academic vice-presidents, faculty, and student representatives ([attached](#)). CCHE also notified all college presidents of Students' Bill of Rights. The Academic Council is consulting on a revised Transfer Policy that will reflect the bill of rights.

CCHE, in collaboration with the Western Interstate Commission on Higher Education (WICHE), received a small grant from the Ford Foundation to advance the general education initiative. In September, the GE-25 Council met to clarify the purpose of legislation and develop charges for the faculty working committees – i.e., develop the criteria for qualifying general education courses as state guaranteed transfer courses. Faculty working committees recommended the criteria to the GE-Council who reviewed and edited the suggested criteria.

### **III. STAFF ANALYSIS**

The proposed competency and content criteria were discussed at the April 2002 Commission meeting. Governing board and institutional representatives testified in support of the proposed criteria and the process for implementing the legislation. The Commission discussed the competency in oral communications and encouraged the Council to address this issue in its next deliberations. The legislation directs the Council to consider changes and enhancements to the core design annually.

The Commission indicated that it will take action at the May Commission meeting, allowing Commissioners time to review and forward any suggested changes to staff.

**IV. STAFF RECOMMENDATION**

**That the Commission approve the competency criteria recommended by the GE-25 Council in**

**Critical Thinking**  
**Mathematics,**  
**Reading**  
**Technology, and**  
**Written Communication.**

**That the Commission approve the state goal, definition, and criteria recommended by the GE-25 Council for each of the following:**

**Arts and Humanities,**  
**Communication**  
**Mathematics**  
**Natural and Physical Sciences**  
**Social Sciences.**

**Appendix A**

**Statutory Authority**

**23-1-125. Commission directive - student bill of rights - degree requirements - implementation of core courses - on-line catalogue - competency test. (1) Student bill of rights.** The general assembly hereby finds that students enrolled in public institutions of higher education shall have the following rights:

(c) Students have a right to clear and concise information concerning which courses must be completed successfully to complete their degrees;

(d) Students have a right to know which courses are transferable among the state public two-year and four-year institutions of higher education;

(e) Students, upon completion of core general education courses, regardless of the delivery method, should have those courses satisfy the core course requirements of all Colorado public institutions of higher education;

(f) Students have a right to know if courses from one or more public higher education institutions satisfy the students' degree requirements;

(g) A student's credit for the completion of the core requirements and core courses shall not expire for ten years from the date of initial enrollment and shall be transferrable.

(3) **Core courses.** The commission, in consultation with each Colorado public institution of higher education, is directed to outline a plan to implement a core course concept, which defines the general education course guidelines for all public institutions of higher education. The core of courses shall be **designed to ensure that students demonstrate competency in reading, critical thinking, written communication, mathematics, and technology.** The core of courses shall consist of at least thirty credit hours, but shall not exceed forty credit hours.

Individual institutions of higher education shall conform their own core course requirements with the guidelines developed by the commission and shall identify the specific courses that meet the general education course guidelines. If a statewide matrix of core courses is adopted by the commission, the courses identified by the individual institutions as meeting the general education course guidelines shall be included in the matrix. The commission shall adopt such policies to ensure that institutions develop the most effective way to implement the transferability of core course credits.

**23-1-108.5.** (b) The council shall recommend to the commission a statewide articulation matrix system of common course numbering to which the general education courses for each higher education institution may be mapped.

(c) (I) On or before October 1, 2002, the council shall recommend to the commission a list of general education courses to be included in the course numbering system. In identifying said general education courses, the council shall review the course descriptions, and may request summaries of course syllabi for review, focusing first on lower division general education courses. The commission shall review the council's recommendations and adopt a statewide articulation matrix system of common course numbering for general education courses, including criteria for such courses, on or before January 1, 2003.

(II) The council shall annually review the list of general education courses and the course numbering system, including the criteria, adopted by the commission and recommend such changes as may be necessary to maintain the accuracy and integrity of the course numbering system. The council's annual review shall include consideration of the course descriptions, and the council may request summaries of course syllabi for further review.

## **GE-25 Council – General Education Coordinating Council**

Governing Boards		8
Dave Clark (CSU)		
Russ DeVriendt (Aims)		
Lee Halgren (State Colleges)		
Jack Burns (CU)		
Sandra Flake (UNC)		
Nigel Middleton (CSM)		
Bob Spuhler (CMC)		
Mary Beth Susman (CC)		
College Presidents		4
Betsy Hoffman (CU)		
Christine Johnson (CCD)		
Tom Gonzales (Front Range CC)		
College Academic Vice-Presidents		7
ASC	David Svaldi	
FLC	Steve Roderick	
MESA	Sam Gingerich	
UCB	Phil DiStefano	
UCCS	Tom Bellamy	
USC	Barb Montgomery	
METRO	Cheryl Norton	
Curriculum & Assessment		1
METRO	Frieda Holley	
Faculty Representatives		5
Sue Ellen Charlton		
John Lanning		
Lana Carter		
Joan Clinefelter		
Gayla Jo Slauson		
Student Representatives		3
CU rep.	Rachel Brown	
CSA rep.	Ryan McMaken	
CC rep.	Ron Greenwell	3

## **COMPETENCY: CRITICAL THINKING**

### **General Education**

Guiding Principle: The goal of instruction in “critical thinking” is to help students become capable of critical and open-minded questioning and reasoning. An understanding of argument is central to critical thinking.

Definition: Critical Thinking competency

Ability to examine issues and ideas and to identify good and bad reasoning in a variety of fields with differing assumptions, contents and methods

Criteria

1. Information Acquisition:
  - Identify questions, problems, and arguments.
  - Differentiate questions, problems, and arguments.
2. Application
  - Evaluate the appropriateness of various methods of reasoning and verification.
  - State position or hypothesis, give reasons to support it and state its limitations.
3. Analysis
  - Identify stated and unstated assumptions.
  - Assess stated and unstated assumptions.
  - Critically compare different points of view.
4. Synthesis
  - Formulate questions and problems.
  - Construct and develop cogent arguments.
  - Articulate reasoned judgments.
5. Communication
  - Discuss alternative points of view.
  - Defend or criticize a point of view in view of available evidence.
6. Evaluation
  - Evaluate the quality of evidence and reasoning.
  - Draw an appropriate conclusion.

04/24/2002

The above bullets represent the full spectrum of criteria that may define this competency. For the purposes of qualifying a state-guaranteed general education course that requires this competency, the institution must demonstrate that the course substantively addresses most, not necessarily all, of the stated criteria.

## **COMPETENCY: MATHEMATICS**

### **General Education**

(Defines criteria for mathematics competency across the curriculum. See mathematics content for course-specific criteria.)

#### **Definition:**

Ability to use mathematical methods, reasoning and strategies to investigate and solve problems.

#### **Criteria**

- 1. Information Acquisition:**
  - Select data that are relevant to solving a problem.
- 2. Application**
  - Use several methods, such as algebraic, geometric and statistical reasoning to solve problems.
- 3. Analysis**
  - Interpret and draw inferences from mathematical models such as formulas, graphs, and tables.
- 4. Synthesis**
  - Generalize from specific patterns and phenomena to more abstract principles and to proceed from abstract principles to specific applications.
- 5. Communication**
  - Represent mathematical information symbolically, graphically, numerically and verbally
- 6. Evaluation**
  - Estimate and verify answers to mathematical problems to determine reasonableness, compare alternatives, and select optimal results.
  - Recognize that mathematical and statistical methods have limitations.

05/01/2002

The above bullets represent the full spectrum of criteria that may define this competency. For the purposes of qualifying a state-guaranteed general education course that requires this competency, the institution must demonstrate that the course substantively addresses most, not necessarily all, of the stated criteria.

## **COMPETENCY: READING**

Criteria apply to all general education courses that develop reading competency  
(not course specific)

### Guiding Principle:

The ability to read critically is developed as students process visual information and apply the information to real problems across the curriculum.

### Definition:

The ability to read critically and thoughtfully.

### Criteria

1. Information Acquisition
  - Recognize the different purposes and types of writing (e.g., descriptive, persuasive, narrative, imaginative, technical).
2. Application
  - Read newspapers and journals to track current events and issues.
  - Extract main points from texts and presentations.
  - Research topics using the web and other technologies.
  - Demonstrate comprehension of material by applying it to a written report, oral presentation, or group discussion.
3. Analysis
  - Summarize or interpret an author's point of view in written or oral format.
4. Synthesis
  - Interpret material by connecting own experiences to what is read in written or oral format.
5. Communication
  - Use logic, reasoning, content analysis, and interpretative skills when reading printed or published materials.
  - Convey the essence of read material to others by paraphrasing or citing in written or oral format.
6. Evaluation
  - Select texts that are credible and appropriate sources for written or oral case building.

04/24/2002

The above bullets represent the full spectrum of criteria that may define this competency. For the purposes of qualifying a state-guaranteed general education course that requires this competency, the institution must demonstrate that the course substantively addresses most, not necessarily all, of the stated criteria.

- Identify common fallacies (e.g., fact, logic, and relationships) in presentations and written texts.
- Compare the value or relevance of information obtained from different sources.

04/24/2002

The above bullets represent the full spectrum of criteria that may define this competency. For the purposes of qualifying a state-guaranteed general education course that requires this competency, the institution must demonstrate that the course substantively addresses most, not necessarily all, of the stated criteria.

## **COMPETENCY: TECHNOLOGY**

### **General Education**

#### Guiding Principle:

The integration of appropriate technology competencies and skills support the mastery of content of general education. The use of technology should never suppress content or diminish the rigor of general education courses.

#### Definition of technology competency:

Ability to select and apply contemporary forms of technology to solve problems or compile information

#### Criteria

1. Information Acquisition:
  - Conceptually understand available networking tools (e.g. web search engines, web sites), select, discriminate and evaluate sources for credibility and appropriateness.
2. Application:
  - Achieve a familiarity with contemporary technology that allows a student to identify which technologies are useful and/or appropriate.
3. Analysis:
  - Use appropriate technology to analyze information or data as required in a field of study.
4. Synthesis:
  - Integrate information or data from a variety of sources to form a position or present a point of view.
5. Communication:
  - Use current technology as a venue for information sharing (e.g. post a web page).
6. Evaluation:
  - Determine which technologies apply to the task, understand the limitations of those technologies and know how to combine technologies effectively.

04/24/2002

The above bullets represent the full spectrum of criteria that may define this competency. For the purposes of qualifying a state-guaranteed general education course that requires this competency, the institution must demonstrate that the course substantively addresses most, not necessarily all, of the stated criteria.

## **COMPETENCY: WRITTEN COMMUNICATION**

Criteria apply to all general education courses that develop written competency  
(not course specific)

### Guiding Principle:

Learning to write is a complex process that takes place over time with continued practice and informed guidance. While qualified writing professionals help students learn writing skills and knowledge of writing conventions, written communication competency is developed as students apply this knowledge across the curriculum. The statements below describe the level of competency in expository writing that students develop and refine in the general education curriculum.

### Definition:

The ability to write clearly and concisely.

### Criteria

1. Information Acquisition
  - Find, select, and synthesize information from appropriate primary and secondary sources.
2. Application
  - Apply knowledge of syntax, grammar, punctuation and spelling in writing assignments.
  - Use appropriate vocabulary, formats, and documentation for different writing tasks.
3. Analysis
  - Critique own and others' work.
4. Synthesis
  - Integrate own ideas with those of others.
5. Communication
  - Convey a primary theme or message in a written text.
  - Use a variety of research tools, including current technological resources.
6. Evaluation
  - Clarify ideas and improve the quality of a written paper by using feedback.

See Communication Content Criteria for course-specific criteria.

04/24/2002

The above bullets represent the full spectrum of criteria that may define this competency. For the purposes of qualifying a state-guaranteed general education course that requires this competency, the institution must demonstrate that the course substantively addresses most, not necessarily all, of the stated criteria.

**CONTENT AREA: ARTS & HUMANITIES**  
**General Education**  
“Guaranteed Transfer” Course Criteria

State-level Goal:

Collectively, the general education requirement in art and humanities is designed to help students:

- recognize the different ways in which humans have perceived their world.
- deepen their understanding of how social, cultural, linguistic, religious, philosophical, and historical circumstances shape the human environment.
- enhance their appreciation of the creative world.
- explore fundamental questions of value, meaning, and modes of expression and creativity.
- investigate the cultural character and literatures of the human experience.
- learn to approach problems with greater awareness of their moral dimensions and ethical consequences.

Criteria for Designating a Humanities Course as State Guaranteed:

The content of a “state guaranteed” humanities course shall be designed to provide students experiences either to:

1. Respond analytically and critically to cultural artifacts, including literature, music, and works of art by:
  - a. Describing the basic elements and their effects on meaning in a work of art.
  - b. Relating the effects of geography, economics, politics, religion, philosophy and science on the values of a culture and the stylistic features of its arts.
  - c. Determining how a work reflects or rejects the major values or concerns of a historical era or culture.
  - d. Interpreting themes or major concepts.

OR

2. Compare and contrast attitudes and values of specific eras (e.g., past to the present), or cultures (e.g., non-Western to Western culture).

OR

3. Understand ways of thinking, including logic and ethics, or obtain a broad understanding of the different questions dealt with by leading philosophers and their positions on those questions.

AND

4. Competency in critical thinking.
5. Competency in written communication
6. Develop competency in reading or technology

Maximum number of Arts & Humanities course credits that will be guaranteed to transfer  
6 credit hours, addressing different content criteria

Suggested Disciplines Include:

Humanities; Foreign Languages; Literature; Philosophy; Cultural and Area Studies; or non-studio Theatre, Art and Music classes.

**CONTENT: COMMUNICATION**  
**General Education**  
“Guaranteed Transfer” Course Criteria

State-level Goal:

The general education requirement in communication is designed to help students:

- To develop the ability to use the English language effectively.
- To read and listen critically.
- To write with thoughtfulness, clarity, coherence, and persuasiveness.

Criteria for Designating a Communications Course as State Guaranteed:

The **content** of a “state guaranteed” communication course shall be designed to:

1. Develop rhetorical knowledge, including:
  - a) Focus on a purpose.
  - b) Use voice, tone, format and structure appropriately.
  - c) Write and read texts written in several genres and for multiple discourse communities.
2. Experience in writing processes:
  - a) Use multiple drafts.
  - b) Develop strategies for generating, revising, editing, and proofreading.
  - c) Learn to critique own and other’s work.
  - d) Use a variety of technologies (writing and research tools).
3. Develop mastery of writing conventions
  - a) Select appropriate format for different writing tasks.
  - b) Apply genre conventions ranging from structure and paragraphing to tone and mechanics.
  - c) Use specialized vocabulary, format and documentation appropriately.
  - d) Control features such as syntax, grammar, punctuation, and spelling.
4. Demonstrate student’s comprehension of content knowledge through effective communication strategies, including:
  - a) Ability to compose messages for specific purposes (e.g., expository, persuasive, technical, etc.).
  - b) Ability to communicate to a variety of audiences.
  - c) Ability to adapt content and style to respond to the needs of different audiences and different rhetorical situations.

AND

5. Competency in critical thinking.
6. Competency in written communication (must meet all competency criteria).
7. Competency in reading communication.

Maximum number of credits in communications courses that will be **guaranteed** to transfer 6 credit hours in writing courses

Disciplines Included:

Writing or English writing courses

**CONTENT: MATHEMATICS**  
**General Education**  
“Guaranteed Transfer” Course Criteria

State-level Goal:

Collectively, the general education requirement in mathematics is designed to help students:

- develop understanding of fundamental mathematical concepts and their applications.
- develop a level of quantitative literacy that would enable them to make decisions and solve problems and which could serve as a basis for continued learning.

Criteria for Designating a Mathematics Course as State Guaranteed:

1. The **content** of a “state guaranteed” mathematics course shall be designed to provide students experience to know how to:
  - a) Select data relevant to for solving a problem.
  - b) Interpret and draw inferences from mathematical models such as formulas, graphs, and tables.
  - c) Represent mathematical information symbolically, visually, numerically, and verbally.
  - d) Use several methods, such as algebraic, geometric, and statistical reasoning, to solve problems.
  - e) Estimate and verify answers to mathematical problems in order to determine reasonableness, identify alternatives, and select optimal results.
  - f) Demonstrate an ability to generalize from specific patterns of events and phenomena to more abstract principles, and to proceed from abstract principles to specific applications.
  - g) Recognize that mathematical and statistical methods have limitations.

AND

2. Competency in Mathematics.
3. Competency in Critical Thinking

Maximum number of credits in mathematics that will be guaranteed to transfer

1 course, ranging from 3-5 credits. Test is that the course must meet all the stated criteria.

Disciplines Include:

Mathematics

Examples of prototypical Mathematics General Education courses:

College Algebra; Mathematics for Elementary Educators; Mathematics for Secondary Educators; Calculus I, II or III; Liberal Arts Mathematics; Finite Mathematics/Business Mathematics/Financial Mathematics; Survey of Calculus; Trigonometry/Pre-Calculus; Statistics (with an introduction to Probability); any course that has one of these courses as a pre-requisite would also meet these criteria.

**CONTENT: NATURAL/PHYSICAL SCIENCES**  
**General Education**  
“Guaranteed Transfer” Course Criteria

State-level Goal:

Collectively, the general education requirement in natural and physical sciences is designed to help students master scientific **knowledge** at a level that facilitates communication in an increasingly technological society, including:

- to instill a clear understanding of the basic scientific viewpoint
- to enable students to learn and use the scientific method
- to evaluate the impacts of science and technology on society
- to increase the level of science literacy

Criteria for Designating a Science Course as State Guaranteed:

1. The content of a “state guaranteed” science course shall be designed to develop students’:
  - a) foundational knowledge in specific field(s) of science.
  - b) understanding of and ability to use the scientific method.
  - c) recognition that science as a process involves the interplay of observation, experimentation and theory.
  - d) use of quantitative approaches to study natural phenomena.
  - e) ability to identify and highlight interconnections between specific course being taught and larger areas of scientific endeavor.
  - f) ability to distinguish among scientific, nonscientific, and pseudoscientific presentations, arguments and conclusions.
2. The required laboratory component of a science course will:
  - a) develop concepts of accuracy, precision, and the role of repeatability in acquisition of scientific knowledge.
  - b) be predominately hands-on and inquiry-based with demonstration components playing a secondary role.
  - c) emphasize a student’s formulation and testing of hypotheses with scientific rigor.
  - d) stress student generation and analysis of actual data, the use of abstract reasoning to interpret these data, and communication of the results of experimentation.
  - e) develop modern laboratory skills.
  - f) emphasize procedures for laboratory safety.

AND

3. Competency in mathematics
4. Competency in critical thinking

Maximum number of science credits that are guaranteed to transfer  
Two lab-based courses (8 credits)

Suggested Disciplines Include:

Astronomy, Biology, Chemistry, Environmental Science, Geology, Physics

**CONTENT: SOCIAL SCIENCES**  
**General Education**  
“Guaranteed Transfer” Course Criteria

**State-level Goal:**

Collectively, the general education requirements in social sciences are designed to help students acquire a broad foundation in social science knowledge and ability to apply this understanding to contemporary problems and issues. Specifically the social science requirement helps students:

- Gain insight into the methods of social sciences,
- Understand historical and social frameworks,
- Understand how individuals relate to the social world, past and present.

**Criteria for Designating a Social Science Course as State Guaranteed:**

The content of a “state guaranteed” social science course shall be designed to:

1. Provide **content knowledge** in one of the following areas:
  - a) Historical, cultural, or social frameworks that explore and compare achievements, issues, and characteristics of the world and its different cultures.  
AND
  - b) United States historical framework exploring important aspects of American culture, society, politics, economics or its position in the world.  
OR
  - c) Understanding of contemporary economic or political systems  
OR
  - d) Understanding how geography creates a sense of identity, shapes a culture, and influences the economics of a region.  
OR
  - e) Knowledge of human behavior, including learning, cognition, and human development.
2. Ability to use the social sciences to analyze and interpret issues.
3. Understand diverse perspectives and groups.

AND

4. Competency in Critical Thinking
5. Competency in Written Communication or Technology.

**Maximum number of credits in social sciences that will be guaranteed to transfer**  
9 credits, one History course plus 2 courses addressing a different knowledge area criterion (1 b –e).

**Suggested Disciplines Include:**

Anthropology, Economics, Geography, History, Political Science, Psychology, Sociology

**TOPIC: COLORADO/NEW MEXICO RECIPROCITY AGREEMENT**

**PREPARED BY: WILLIAM G. KUEPPER**

**I. SUMMARY**

Colorado has negotiated bilateral reciprocity agreements with two states. Each agreement requires Commission action to continue. This agenda item outlines the rationale and request for a approving the renewal of the Colorado- New Mexico Reciprocity Agreement. At the present time, the Utah Commission on Higher Education has not responded to our inquiry whether it wishes to renew its current agreement.

Colorado and New Mexico have had a reciprocity program since 1981-82 to increase educational opportunities for students of both states. A specific number of full-time equivalent students from New Mexico may attend participating institutions in Colorado at the institutions' in-state tuition rates. Likewise, the same number of FTE Colorado students may attend specified New Mexico institutions at the in-state rate of those institutions. Participating students are treated as in-state students both for tuition and FTE funding purposes. Since the program is a reciprocal one, no state funds are exchanged between the two states. It originated because New Mexico does not participate in the Western Undergraduate Exchange (WUE) program.

The agreed upon FTE number for the current year is 300. Preliminary data indicates that approximately 285 FTE students from New Mexico are studying this year in Colorado and a comparable number of Colorado students are enrolled in New Mexico under the agreement.

The current agreement expires June 30, 2002. The proposed new agreement (Appendix A) basically is an extension of the existing agreement with three changes:

1. It adds two Colorado institutions, the University of Southern Colorado and Western State College. This would provide a wider range of educational choices for the New Mexico students, and is done at the request of New Mexico. The addition of these particular institutions would maintain the geographic integrity of limiting Colorado participation to institutions in the southern part of the state.
2. The FTE limit is raised to 320. This accommodates the new institutions as well as the increased quota requests from currently participating Colorado institutions.
3. The agreement is limited to undergraduate students.

Commission staff recommends approval of the attached Reciprocity Agreement with New Mexico.

Although no action is required at this time on either the bilateral agreements with Utah or the multi-state exchange programs administered by the Western Interstate Commission for

Higher Education, this agenda item includes brief comments about them.

## **II. BACKGROUND**

The initiation of the reciprocity agreement with New Mexico came about primarily as a result of educational needs of New Mexicans living in the northern extremities of that state. For many of these people, the nearest post-secondary institution is in Colorado. The most obvious example is the close proximity of Raton, NM to Trinidad, Colorado and its junior college while the nearest New Mexico institution is about 100 miles away.

After initiation of a limited exchange program, it became quickly apparent that many more New Mexico students were crossing into Colorado under the agreement than Colorado students going the other way. Early in 1985, a new agreement was reached between the two states that expanded the number of Colorado border institutions participating and opened up virtually all New Mexico colleges and universities to Colorado reciprocity students. At that time, the program accommodated slightly over 200 FTE students.

The agreement has remained in much the same form since that time. Currently two Colorado baccalaureate institutions, and four two-year colleges participate: Adams State College, Fort Lewis College, Lamar Community College, Pueblo Community College (at its Southwest Center), San Juan Basin Technical College, and Trinidad Junior College. All of New Mexico public colleges and universities are participants except for the University of New Mexico's Schools of Medicine and Law, and the New Mexico Military Institute. The reciprocity is essentially an undergraduate one, although about 35 Colorado residents are in graduate programs in New Mexico under the agreement.

New Mexico requested that Colorado include more institutions in the agreement, especially some offering graduate programs. Following discussions among Commission staff, with the institutions involved, and with staff of the New Mexico Commission, it was decided to include the University of Southern Colorado and Western State College in the proposed agreement. Since these additions did not significantly address New Mexico's request for more opportunities at the graduate level, it was mutually agreed that the new agreement would be at the undergraduate level only.

Table One shows recent enrollments in the program by academic year. The sharp drop in New Mexico participation in 1999-2000 and 2000-2001 is attributed substantially to the initiation of that state's "lottery" scholarships. These scholarships must be used at a New Mexico institution and must be taken up at initial enrolment following high school graduation. CCHE staff have requested New Mexico to modify scholarship eligibility requirements so as to permit students to start at a Colorado institution under the reciprocity agreement and still retain eligibility for a scholarship when continuing their education in New Mexico. Thus far that request has not been approved. Despite that, enrollments are rebounding and are projected to continue to do so.

**Enrollment in CO/NM Reciprocity  
 Table I**

<b>Year</b>	<b>Colorado</b>	<b>New Mexico</b>
1995-1996	291	268
1996-1997	298	290
1997-1998	276	272
1998-1999	271	
1999-2000	239	
2000-2001	227	
2001-2002	283	

During the past three years, each state has permitted up to 300 FTE students to enroll under the reciprocity agreement. Each participating institution in Colorado is given an FTE allocation by CCHE staff from the total FTE's. Allocations were modified a year ago to see if overall enrollment could be increased. Historically, the two institutions that are located on the Colorado-New Mexico border -- Trinidad Junior College and Fort Lewis College -- have accounted for three quarters of the overall enrollments. After a significant drop-off in enrollments at Trinidad during the 1999-2000 and 2000-2001 academic years, the allocations were adjusted. Table Two shows the preliminary allocations for 2002-2003 assuming the increase in FTE's and the addition of two Colorado institutions.

**Preliminary FTE Allocations for 2002-2003  
 Table 2**

<b>Institution</b>	<b>2001-2002 Enrollment</b>	<b>2002-2003 Allocation</b>
Adams State College	28	28
Fort Lewis College	82	84
Lamar Community College	16	22
Pueblo Community College	2	3
San Juan Basin Tech Center	25	25
Trinidad State Junior College	130	142
University of Southern Colorado	---	8
Western State College-	---	8
<b>Total</b>	<b>283</b>	<b>320</b>

### **III. STAFF ANALYSIS**

#### **A. New Mexico Reciprocity.**

The CO/NM reciprocity has been a quiet success story. Approximately three thousand students from the two states have been afforded additional educational opportunities over the twenty years the program has been in place.

While the numerical balance has not always been as close as desired, the exchange of students has remained sufficiently in balance to maintain this as a truly reciprocal program. The current and proposed agreements call for a monitoring of the enrollment balance each year and adjustment, if necessary.

The annual allocation of FTEs to the participating institutions is an important part of the strategy to keep enrollments in balance. It is important that these allocations be reviewed each year to see if adjustments are needed.

Appendix C contains tables prepared by staff of CCHE and the New Mexico CHE showing foregone tuition revenues. Of course, many of the students counted in the report would not be attending the respective institutions if it were not for the reciprocity agreement or, if attending, might be paying the Western Undergraduate Exchange tuition rate (150% of resident tuition). The data, however, do offer another comparison of how reciprocal is the agreement. The higher totals for New Mexico are due to higher tuitions at the New Mexico institutions.

The New Mexico Commission will be preparing, during the upcoming year, a report for the legislature on all of that state's reciprocity agreements and other forms of tuition waivers. They have informed CCHE staff that there is no indication that this study, or the legislative concerns which lead to it, place the CO/NM reciprocity in jeopardy. They have asked, however, that next year's agreement be a close reflection of the current one, with any major changes to be considered after completion of the study.

The relatively modest changes that we propose for the new agreement are useful ones and, in our view, should be included in the new agreement. The New Mexico Commission will be reviewing the three changes at its June meeting. Since two of the three changes originate from New Mexico, it is reasonable to assume that these will be acceptable until the Commission concludes its study. In the view of CCHE staff, should not stand in the way of concluding the agreement.

After a short lapse, this reciprocity program is receiving the appropriate amount of attention from staff at both the New Mexico and Colorado Commissions. For example, we are working on a common data reporting system. In addition, we will continue to discuss such issues as expanding the scope of the program and maintaining an enrollment balance.

In sum, Commission staff believes that the program continues to provide the educational opportunities to students of both Colorado and New Mexico that it was established to do, and that it does so in an efficient and cost-effective manner.

### **B. Utah Reciprocity**

CCHE has approved two reciprocity agreements between institutions in Colorado and Utah. In October 1996, the Commission approved an agreement between all locations of Colorado Northwestern Community College and outlying campuses of Utah State University at Logan and the Uintah Basin. A second agreement was approved in June 1998. It allowed Utah students to attend Mesa State College and Colorado students to attend the College of Eastern Utah at its campuses in Price, Moab, Blanding, and Green River. Like the agreement with New Mexico, these are based on the closest college concept, and remains limited in scope.

Both programs have shown an imbalance in participation, with more Utah students coming to Colorado. Data from Mesa State for this year show a ten to one ratio, a condition that is far from reciprocal.

CCHE staff have contacted staff at the Utah System of Higher Education to see if Utah is interested in continuing these agreements and, if so, what changes can be made to bring the enrollments into balance.

Unlike New Mexico, Utah does participate in the Western Undergraduate Exchange Program. Colorado residents may enroll at Utah institutions of higher education under this agreement.

CCHE staff is seeking direction on proceeding with the Utah Reciprocity Agreement. The primary issue related to reciprocity concerns the enrollment imbalance.

- If Utah students are disproportionately enrolling in Colorado, should Colorado pursue a Reciprocity Agreement with Utah?
- Under what conditions would a reciprocity agreement be acceptable?

### **C. WICHE Reciprocity**

Colorado is an active participant in each of the three student exchange programs administered through the Western Interstate Commission for Higher Education (WICHE). These are: the Western Undergraduate Exchange, the Western Regional Graduate Program, and the Professional Student Exchange Program. The first two are reciprocal in nature with no funds transferred between states. The third employs the use of state-funded support fees that are paid to host institutions on behalf of students enrolled in the participating professional programs. This year, close to 2000 students are studying in Colorado under the auspices of the three WICHE exchange programs, while over 1700 Colorado residents are studying in other states under these same programs. A more extensive report on the programs is contained in agenda item VI.A. Matters related to

these programs which may merit further attention by Commission staff include

- Should the state seek additional bilateral tuition agreements with other bordering states or, on the other hand, rely even more heavily on the WICHE exchange programs?
- Should the state eliminate or reduce the payback requirement in the Professional Student Exchange?
- Are there other professional areas in which Colorado should be supporting students, e.g., osteopathic medicine?
- Should the decision to exclude California WUE students be reconsidered?
- As a rapidly growing state, will Colorado face a shortage of places in post-secondary institutions, and how will this affect exchange programs?
- How will distance education impact the exchange agreements and does the tuition model employed in the Western Undergraduate Exchange have utility in determining tuition charges for on-line courses?

#### **IV. STAFF RECOMMENDATION**

**That the Commission approve the proposed Reciprocity Agreement between Colorado and New Mexico.**

**Appendix A**

**STATUTORY AUTHORITY**

Authority for the Commission to enter into reciprocal agreements is given in 23-1-112, C.R.C.

“...the commission shall identify those circumstances where the waiving of the nonresident differential in tuition rates, on a reciprocal basis with other states, would enhance educational opportunities for Colorado residents. Relative to such identified circumstances, the commission shall negotiate with the other states involved with the objective of establishing reciprocal agreements for the waiving of the nonresidential differential for Colorado residents attending state institutions of higher education in other states in exchange for Colorado state institutions of higher education waiving the nonresident differential for residents of the other states. Agreements negotiated between Colorado and other states shall provide for an equal number of resident and nonresident students to be exchanged between the states. The commission shall establish regulations for the administration of this section, based on the application of the closest college concept...”

**Attachment B**

**Colorado-New Mexico Reciprocal Agreement**

THIS AGREEMENT is made by and between the Colorado Commission on Higher Education ("CCHE"), an agency of the state of Colorado, and the New Mexico Commission on Higher Education ("NMCHE"), an agency of the state of New Mexico. The purpose of the agreement is to continue a Student Exchange Program ("Program") enabling selected students from New Mexico to enroll at designated Colorado institutions of higher education at in-state tuition rates, and to enable an equal number of selected students from Colorado to enroll at New Mexico institutions of higher education at in-state tuition rates.

Recitals

- A. The CCHE and the NMCHE desire to improve educational opportunities for the students of their respective states and have identified circumstances in which enrolling students from the other state, at resident tuition rates, would enhance such opportunities.
- B. The CCHE is authorized to enter into this agreement pursuant to 23-1-112.5, C.R.S., and the NMCHE is authorized to enter into this agreement pursuant to Section 21-1-6, NMSA, 1978.

Agreement

In consideration of the mutual promises contained herein, the NMCHE and the CCHE agree as follows:

- 1. The term of this agreement shall be for the 2001-2004 academic years and will end on June 30, 2004. A performance review by CCHE and the NMCHE shall be conducted at the end of this agreement. Either agency may terminate the Agreement at any time, provided that at least ninety (90) days prior notice is given.
- 2. Selected Colorado residents meeting the eligibility criteria established by CCHE, and selected New Mexico residents meeting the eligibility criteria established by the NMCHE, will be eligible to participate in the program.
  - a. The selected Colorado students who attend designated New Mexico institutions under terms of this agreement must be residents of Colorado, and must be enrolled in, or have applied to enroll in, a program of study leading to a certificate or an associate or baccalaureate, degree and must meet such other criteria as may be established by the CCHE.
  - b. The selected New Mexico students who attend designated Colorado institutions under terms of this agreement, must be New Mexico residents, and must be

enrolled in, or have applied to enroll in, a program of study leading to a certificate or an associate or baccalaureate degree, and must meet such other criteria as may be established by the NMCHE.

- c. The highest priority for New Mexico residents will be given to those students who will be attending the college in Colorado that is located the shortest distance by passable road from the student's place of residence, and that offers the program of study desired by the student.
3. Designated institutions in Colorado are: Lamar Community College, Pueblo Community College - Southwest Center, and San Juan Basin Area Vocational-Technical School, Trinidad State Junior College, Adams State College, Fort Lewis College, University of Southern Colorado, and Western State College.
4. Designated institutions in New Mexico are state-supported postsecondary education institutions, with the exception of New Mexico Military Institute (NMMI) and the University of New Mexico School of Medicine and School of Law which are specifically excluded from this agreement.
5. The state of Colorado will accept up to three hundred and twenty (320) undergraduate FTE students; the state of New Mexico will accept up to three hundred and twenty (320) undergraduate FTE students. An FTE student shall mean enrollment of 30 semester hours or 45 quarter hours of credit during the academic year and preceding summer.
6. No money shall be paid by either state to the other state in exchange for the waiver of the non-resident tuition differential.
7. An official designated by the CCHE or the NMCHE will annually review the Program and this agreement and recommend desirable changes to the two commissions.
8. The NMCHE and the CCHE, each, will fulfill the following requirements:
  - a. designate an official to be responsible for communication about and reporting for the program;
  - b. determine the eligibility and selection criteria to be used in determining which person, who lives in its state, may participate in the Program;
  - c. develop such rules, for selection of students for participation, as it may desire subject to the requirement that the procedures make it possible to limit the number of participants;
  - d. inform the designated institutions in their state and the other NMCHE or CCHE of program requirements in a timely manner;

- e. refrain from discrimination on the basis of race, sex, national origin, religion, age, or handicap in the administration of the Program;
  - f. designate an official, from each designated institution within their state, who has responsibility to:
    - (1) accurately evaluate students' eligibility for the program, according to the criteria specified in the Rules for this Program;
    - (2) limit the number of participants to the specified level;
    - (3) charge the selected participants the in-state tuition rate of the institution they are attending;
    - (4) maintain records of the program on their campus;
    - (5) Provide, to the Commission or CCHE, the following information on or before July 1 of this year:
      - (a) names and addressees of student participants for each academic period;
      - (b) program of study and degree objective of each student;
      - (c) number of hours attempted each academic period by each student;
      - (d) number of hours completed each academic period by each student;
      - (e) cumulative grade point average for each student.
  - g. ensure that students already in this program would be allowed to continue in the program for a reasonable time should a state wish to terminate or downsize the agreed full-time equivalent (FTE).
9. The NMCHE and CCHE will cooperate to the greatest extent possible for the effective operation of the Program.
10. Either party may withdraw and cancel this agreement at any time with or without cause upon giving reasonable notice to the other party.

IN WITNESS WHEREOF, the parties have entered into this agreement as of the \_\_\_ day of \_\_\_, 2002.

Colorado Commission on Higher Education

By:

Timothy E. Foster, Executive Director

New Mexico Commission on Higher Education

By:

Bruce D. Hamlett, Executive Director



<b>TSJC</b>								
Undergraduate								
Full-time	720.50	2,796.50	2,076		167	120,324	467,016	346,692
Part-time	56.30	213.65	157.35	947		53,316	202,327	149,011
Graduate								
Full-time								
Part-time								
Sub Total								495,703
<b>Sub Total Full-time</b>				1274	357	284,816	1,231,549	946,733
<b>Sub Total Part-time</b>						73,0178	265,742	192,664
							<b>TOTAL</b>	1,139,397

**Key:**

ASC - Adams State College

FLC - Fort Lewis College

LCC - Lamar City College

PCC - Pueblo Community College SW Center

SJBAVT - San Juan Basin Area Vo-Tech

**Tuition Savings to Colorado Students through the CO/NM Reciprocity  
 Using 2000-01 Enrollment Data and 2001-02 Tuition Rates  
 Adapted from Data Provided by New Mexico Commission on Higher Education**

	In-State Rate/Ter m	Out-of- State Rate/Term	Tuition Credit Differential /Term	Credit Hours	Full-Time Headcount (Duplicate)	Tuition Costs at In- State Rate	Tuition Costs at Out-of- State Rate	Difference between In-State and Out-of- State Tuition
<b>NMIMT</b>								
Undergraduate								
Full-time	\$911.64	\$3,761.05	\$2,849.41	n/a	32	\$29,172	\$120,354	\$91,181
Part-time	75.97	313.42	\$237.45	0	n/a	0	0	0
Graduate								
Full-time	964.07	3,976.12	\$3,012.05	n/a	0	0	0	0
Part-time	80.34	331.34	\$251.00	0	n/a	0	0	0
Sub Total				0	32	\$29,172	\$120,354	\$91,181
<b>NMSU</b>								
Undergraduate								
Full-time	1,074.00	4,578.00	\$3,504.00	n/a	90	\$96,660	\$412,020	\$315,360
Part-time	89.50	392.50	\$303.00	53	n/a	4,744	20,803	16,059
Graduate								
Full-time	1,188.00	4,710.00	\$3,522.00	n/a	0	0	0	0
Part-time	99.00	392.50	\$293.50	28	n/a	2,772	10,990	8,218
Sub Total				81	90	\$104,176	\$443,813	\$339,637
<b>UNM</b>								
Undergraduate								
Full-time	\$1,245.10	\$5,443.90	\$4,198.80	n/a	158	\$196,726	\$860,136	\$663,410
Part-time	103.76	453.66	\$349.90	148	n/a	15,356	67,142	51,785
Graduate								
Full-time	1,385.30	5,603.30	\$4,218.00	n/a	0	0	0	0
Part-time	115.44	466.94	\$351.50	0	n/a	0	0	0
Professional	2,486.90	8,994.50	\$6,507.60	n/a	2	4,974	17,989	13,015
Sub Total				148	158	\$217,056	\$945,267	\$728,211
<b>ENMU</b>								
Undergraduate								
Full-time	750.00	3,528.00	\$2,778.00	n/a	8	\$6,000	\$28,224	\$22,224
Part-time	62.50	294.00	\$231.50	6	n/a	375	1,764	1,389
Graduate								
Full-time	870.00	3,648.00	\$2,778.00	n/a	8	6,960	29,184	22,224
Part-time	72.50	304.00	\$231.50	0	n/a	0	0	0
Sub Total				6	16	\$13,335	\$59,172	\$45,837
<b>NMHU</b>								
Undergraduate								
Full-time	742.00	4,103.00	\$3,361.00	n/a	37	\$27,454	\$151,811	\$124,357
Part-time	61.83	341.92	\$280.09	9	n/a	556	3,077	2,521
Graduate								
Full-time	816.00	4,371.00	\$3,555.00	n/a	18	14,688	78,678	63,990
Part-time	68.00	364.25	\$296.25	17	n/a	1,156	6,192	5,036
Sub Total				26	55	\$43,854	\$239,759	\$195,904

	In-State Rate/Ter m	Out-of- State Rate/Term	Tuition Credit Differential /Term	Credit Hours	Full-Time Headcount (Duplicate)	Tuition Costs at In- State Rate	Tuition Costs at Out-of- State Rate	Difference between In-State and Out-of- State Tuition
<b>WNMU</b>								
<b>Undergraduate</b>								
Full-time	543.82	2,799.97	\$2,256.15	n/a	7	\$3,807	\$19,600	\$15,793
Part-time	626.22	3,128.96	\$2,502.74	14	n/a	8,767	43,805	35,038
<b>Graduate</b>								
Full-time	626.22	3,128.96	\$2,502.74	n/a	0	0	0	0
Part-time	52.19	260.75	\$208.56	0	n/a	0	0	0
Sub Total				14	7	\$12,574	\$63,405	\$50,831
<b>NMSU DA</b>								
Full-time	384.00	1,092.00	\$708.00	n/a	0	\$0	\$0	\$0
Part-time	32.00	91.00	\$59.00	25	n/a	800	2,275	1,475
Sub Total				25	0	\$800	\$2,275	\$1,475
<b>ATVI</b>								
Full-time	416.40	1,152.00	\$735.60	n/a	2	\$833	\$2,304	\$1,471
Part-time	34.70	96.00	\$61.30	25	n/a	868	2,400	1,533
Sub Total				25	2	\$1,700	\$4,704	\$3,004
<b>NNMCC</b>								
Full-time	312.00	708.00	\$396.00	n/a	10	\$3,120	\$7,080	\$3,960
Part-time	26.00	59.00	\$33.00	23	n/a	598	1,357	759
Sub Total				23	10	\$3,718	\$8,437	\$4,719
<b>SJC</b>								
Full-time	180.00	250.00	\$70.00	n/a	131	\$23,580	\$32,750	\$9,170
Part-time	15.00	20.83	\$5.83	461	n/a	6,915	9,603	2,688
Sub Total				461	131	\$30,495	\$42,353	\$11,858
<b>UNM T</b>								
Full-time	420.00	972.00	\$552.00	n/a	2	\$840	\$1,944	\$1,104
Part-time	35.00	81.00	\$46.00	0	n/a	0	0	0
Sub Total				0	2	\$840	\$1,944	\$1,104
<b>Totals</b>				<b>809</b>	<b>503</b>	<b>\$457,721</b>	<b>\$1,931,481</b>	<b>\$1,473,761</b>

Headcount is duplicated, i.e. a student on a waiver for both fall and spring terms is two headcounts.

Foregone tuition revenue is defined as the incremental difference between the resident and nonresident rates assessed by the institutions both full and part-time students, times the full-time headcount and the part-time student credit hour total for each waiver program. "Full-time" is defined as 12 credit hours and above for tuition purposes. Data are for Fall 2000 and Spring 2001 only; summer session enrollments have been excluded.

**TOPIC: REMEDIAL PLAN AMENDMENTS & REVISIONS**

**PREPARED BY: SHARON M. SAMSON**

**I. SUMMARY**

The Commission accepted the remedial plans submitted by the institutions last fall with the following two caveats:

- 1) From a student perspective, it appears that a single set of placement exams on the Auraria campus would best serve the student population. Since only CCD can deliver remedial courses, the Commission asked CCD to negotiate a common placement exam after UCD's Accuplacer pilot concludes in March 2002. A summary of the UCD pilot study is attached.
- 2) CCHE will monitor the implementation of UCB and UCCS's approach to see if it meets the statutory intent. UCB and UCCS are analyzing high school transcripts of students who score below the statewide remedial cut scores on the ACT exam (i.e., number of English classes).

In essence, the plans of these five institutions had one-year approval.

In addition, Colorado State University and Aims Community College submitted revised remedial plans. The data is insufficient to determine if UCB and UCCS's Remedial plans are achieving the statutory intent. Since CSU's plan is tied to their performance, this agenda item provides an opportunity for each institution listed to present a brief rationale to the Commission to support approval of revised plans or continuation of existing plans.

Discussion on the common assessment for the Auraria campus have been delayed by the funding negotiations nor has UCD submitted its report on the pilot year. A summary of initial findings is attached.

**II. BACKGROUND**

The statute (**C.R.S. 23-1-113.3**) defined the Commission's role and responsibilities, including to (1) design and implement statewide policies for remedial education, (2) provide the General Assembly information on the number, type, and cost of remedial education provided, (3) develop appropriate funding policies that support the institutional roles and missions, (4) ensure the comparability of these placement or assessment tests, and (5) ensure that each student identified as needing basic skills remedial course work is provided with written notification identifying which state institutions offer such basic skills courses and the approximate cost and relative availability of such courses, including any electronic on-line courses.

At its August 2000 meeting, the Commission approved a new Remedial Policy that was designed around three policy goals:

- All degree-seeking first-time students (freshmen, transfer, and non-degree seeking students changing to degree-seeking status) are prepared to succeed in college level courses.
- Students assessed as needing remedial instruction have accurate information regarding course availability and options to meet the college entry-level competencies.
- Colorado public high schools are informed about the level of college readiness of their recent high school graduate.

In March 2001 the Commission approved the revised FTE policy. The policy clearly identifies under which institutions may claim state support for remedial education and what circumstances apply.

The Commission has addressed four of its five statutory responsibilities with this action item. It has adopted a policy, developed funding policies for remedial education, developed a reporting system, and ensured the comparability of placement or assessment tests through a pre-approval process. CCHE has reviewed and pre-approved the remedial plans. The Commission's action is to formally accept the plans prior to publication in print and on-line.

The governing boards submitted remedial plans for each institution addressing (1) who will be assessed, (2) how the students will be assessed, and (3) how the institutions will advise students regarding reading, writing, and mathematics deficiencies (i.e., where the test indicates that they are performing below college level) and inform them of their available options. In this context, the assessment tools are often referred to as college basic skills tests or placement tests.

The twenty-seven public institutions that admit freshman students share a common definition of who will be assessed -- all first-time, degree-seeking students. First-time includes freshmen, transfer and those who change their enrollment status from non-degree seeking to degree-seeking regardless of the number of college credits earned. Prior enrollment as a high school concurrent student does not prevent a student from being categorized as first-time.

In general, colleges are using the ACT test either as a screening test or actual college-level basic skills test. A screening test differentiates students who demonstrate college readiness from those who need to take a specific placement test. For example, community colleges use the ACT test for screening and an Accuplacer for placement. In all plans, a student who does not meet the basic skills standards has an opportunity to retake the test or use an alternative assessment to measure college readiness. Because all incoming recent high school graduates will take the ACT test, it minimizes the testing burden on an institution.

The colleges use common cut scores for screening students with potential need for remedial instruction. A student who receives a cut score will not be required to take further placement tests.

- Mathematics: 19 or above
- Writing: 18 or above
- Reading: 17 or above

The scores were based on a study by ACT's testing staff. According to national data, 50% of the students who received these scores received a C or better in the college level course. ACT has agreed to replicate the study for Colorado students.

Students who do not score at the appropriate level on the placement test are informed of their options. In general, students have three choices (1) enroll in remedial courses offered by the college (i.e., community colleges, ASC, and MESA); (2) enroll in a course offered through the cash-funded program; and (3) enroll in an online course offered by community colleges or the Colorado Consortium (cash funded).

It is the student's responsibility to satisfy remedial needs within the first 30 credit hours. A student must earn a C or better in a remedial course to satisfy the remedial requirements.

### **III. STAFF ANALYSIS**

In compliance with the need for comparable assessment score, the Academic Council negotiated common cut scores for ACT subtests during the following month. At the conclusion of the negotiation session, the decision specified that:

A student must score a 19 or higher on the Act Math subtest to be considered college ready in mathematics (SAT equivalent of 440).

A student must score 18 or higher on the ACT English subtest to be considered college ready in writing. (SAT equivalent of 420).

A student must score 17 or higher on the ACT English subtest to be considered reading at college level. (SAT equivalent of 400).

While certain institutions are using additional assessment tools to determine the level of college readiness, the scores on these tests must correlate to the ACT subtest scores. Setting the common cut scores was critical to ensure that no student would be tested twice or receive conflicting advice regarding their need for remedial assistance.

The following students are exempt from taking a placement test in reading, writing, or mathematics. Students who have:

- earned a bachelor or associate degree.
- been previously assessed at a Colorado public college or university.

- successfully completed basic skills instruction in mathematics, writing or reading are exempt from testing in that subject area only.
- successfully completed a college-level course in English are exempt from the requirement for basic skills assessment in writing and reading.
- successfully completed a college-level course in Mathematics are exempt from the requirement for basic skills assessment in mathematics.

The cut scores were based on an analysis conducted by ACT that 50% of the students who earn a 19 or higher on the ACT Math subtest will earn a C or better in college level Math. Similarly, a student who scores 18 or higher on the ACT English subtest will earn a C or better in College Composition course. Reading did not have a similar statistic research base but the studies show that reading is closely correlated to writing skills, that is, students who did not have college level reading skills most probably will not have college level writing scores. CCHE and the institutions agreed to monitor the reading cut score.

#### Common assessment on the Auraria Campus

During 2000-01, CCD and UCD used the Accuplacer to assess students' remedial needs if the student scored below the ACT cut score. Metro designed institutional assessments for math and writing. Metro reassesses student who enroll in remedial classes at a community college. This practice appears in conflict to the intent of the statute and CCHE policy, which specifies that remedial assessment occurs at the entry point and that students should not need to undergo duplicate assessment. The table below indicates the change in remedial course enrollment patterns with the implementation of the remedial policies of these three institutions.

<b>Institution</b>	<b>2000-01</b>	<b>2001-02</b>
Metro	5,633	2,741
UCD	285	360

The number of UCD students who were advised to enroll in remedial classes increased slightly with UCD's new student success advising system. The number of Metro students who were advised to enroll in remedial classes decreased by half with the implementation of Metro's Remedial Plan.

Excerpt from UCD's report on the student advising and remedial pilot program: "New student orientations were offered several times prior to each semester. These sessions were structured to provide information about degree programs and requirements as well as general information about UCD and the Auraria campus. As part of their orientation, the **Accuplacer basic skills assessment** was offered. This instrument was used as a placement tool. **We have discovered that more accurate placement has contributed to our record retention statistics.** Larry Armenta, Director of the Pre-Collegiate program at UCD, has indicated that the students he has tracked have higher GPAs and have completed more Core coursework than previous cohorts."

Test to see if Alternative Assessment Meets the Intent of the Statute

The intent of the legislation is that all incoming students will have the reading, writing, and math skills necessary to succeed in college. The Commission accepted two remedial plans provisionally in 2001 allowing UCB and UCCS to implement an alternative assessment rather than use ACT test scores to identify remedial needs and advise students on ways to remediate academic deficiencies. This decision was based on the assumption that a student who scored one point below a cut score may demonstrate in other ways college readiness.

UCB's remedial plan indicated that it would review the transcripts of students who scored below the statewide cut scores to determine if other factors would indicate a student's readiness to handle college level writing and math assignments. It is expected that this type of analysis would differentiate the skills of transfer students but that at least 50% of students who score below the state cut scores would need some remediation.

**University of Colorado - Boulder  
 First-Time Students**

	Enrolled Students who scored below the Remedial cuts score on ACT/SAT	Enrolled Students UCB advised as Needing Remediation	Pct	Minimum	Maximum	Mean
# Writing Remediation	107	8	7%	8	17	14.4
# Reading Remediation	75	0	0%	0	0	0
# Math Remediation	173	77	45%	14	18	16.8
# Missing Data	14	0	0%			

**University of Colorado - Boulder  
 Transfer Students**

	Enrolled Students who scored below the Remedial cuts score on ACT/SAT	Enrolled Students UCB advised as Needing Remediation		Minimum	Maximum	Mean
# Writing Remediation	94	0	0%	0	0	0
# Reading Remediation	128	0	0%	0	0	0
# Math Remediation	154	4	3%	16	18	17
# Missing Data	317	0	0%			

Source: SURDS Fall 2001 Undergraduate Applicant Files

Only a small percentage of students who scored between 8 and 18 on the ACT test were advised into remedial courses. While it may be reasonable to expect that 20% of students who scores below 18 on the ACT English test do not need remediation, UCB's review of high score transcripts indicated that 91% did not need remediation.

The transfer student remedial advising numbers are still troubling given the fact that a transfer student who passed a college math or writing course is exempt from remedial

assessment. These data include students who were non-degree seeking and transferred into UCB as degree seeking students. All transfer students were judged to be college-ready.

The staff are requesting UCB to provide data on the 173 students who are identified with remedial needs – their college GPA at the end of the first term, the number who enrolled in math during the first year, the number who enrolled in freshmen writing, and the grades that they received in these courses.

**University of Colorado - Colorado Springs  
 First-Time Students**

	Enrolled Students who scored below the Remedial cuts score on ACT/SAT	Enrolled Students UCCS advised as Needing Remediation	Pct	Minimum	Maximum	Mean
# Writing Remediation	74	31	42%	11	22	16
# Reading Remediation	43	0	0%	0	0	0
# Math Remediation	152	5	3%	14	17	16.4
# Missing Data	109		0%			

**University of Colorado - Colorado Springs  
 Transfer Students**

	Enrolled Students who scored below the Remedial cuts score on ACT/SAT	Enrolled Students UCCS advised as Needing Remediation		Minimum	Maximum	Mean
# Writing Remediation	65	0	0%	0	0	0
# Reading Remediation	50	0	0%	0	0	0
# Math Remediation	131	0	0%	0	0	0
# Missing Data	278		0%			

Source: SURDS Fall 2001 Undergraduate Applicant Files

The University of Colorado at Colorado Springs data on students with identified remedial needs indicates a similar pattern. Fewer than expected numbers of students with ACT scores below the cut scores are advised into remediation. The exception is writing where 50% of the students who scores below 18 on the ACT English test were identified after a transcript review as needing remedial help.

The staff are requesting UCCS to provide data on the 152 students who are identified with remedial needs – their college GPA at the end of the first term, the number who enrolled in math during the first year, and the grade that they received in a freshmen math course.

**Colorado State University  
 First-Time Students**

	Enrolled Students who scored below the Remedial cuts score on ACT/SAT	Enrolled Students CSU advised as Needing Remediation	Pct	Minimum	Maximum	Mean
# Writing Remediation	75	44	58.7%	0	0	0
# Reading Remediation	37	42	113.5%	0	0	0
# Math Remediation	130	244	187.7%	0	0	0
# Missing Data	1,581	0	0.0%			

**Colorado State University  
 Transfer Students**

	Enrolled Students who scored below the Remedial cuts score on ACT/SAT	Enrolled Students CSU advised as Needing Remediation		Minimum	Maximum	Mean
# Writing Remediation	18	12	66.7%	0	0	0
# Reading Remediation	11	11	100.0%	0	0	0
# Math Remediation	42	28	66.7%	0	0	0
# Missing Data	1555	0	0.0%			

Source: SURDS Fall 2001 Undergraduate Applicant Files

The State Board of Agriculture adopted a new remedial plan for Colorado State University. The revised CSU plan replicates UCB's remedial plan. Because we do not have sufficient data from UCB to evaluate if the current UCB plan is meeting the intent of the statute, this question needs empirical evidence before the Commission can act on this request.

In 2000-01, CSU provided remedial assessment scores for only 9% of its freshmen, those that submitted SAT scores as part of the admission application. The interesting pattern is that CSU's math assessment exam directed more students into Remedial Math than the equivalent SAT score would identify. CSU will be submitting a revised data file prior to the next Commission meeting. With the UCB data on the performance of students who were advised based on individual judgment, this data will assist in determining if the proposed plan is aligned with the intent of the statute.

## **Appendix A**

### **STATUTORY AUTHORITY**

The policy applies to all state-supported institutions of higher education, including all four-year state-supported universities and colleges that admit freshmen, extension programs of the state-supported universities and colleges, junior and community colleges, and local district colleges. The governing boards and institutions of the public system of higher education in Colorado are obligated to conform to the policies set by the Commission within the authorities delegated to it by **C.R.S. 23-1-113.3**.

**Commission directive – basic skills courses.** (1) ON OR BEFORE SEPTEMBER 1, 2000; THE COMMISSION SHALL ADOPT AND THE GOVERNING BOARDS SHALL IMPLEMENT STANDARDS AND PROCEDURES WHEREBY BASIC SKILLS COURSES, AS DEFINED IN SECTION 23-1-113 (4) (c), MAY BE OFFERED BY STATE INSTITUTIONS OF HIGHER EDUCATION PURSUANT TO THIS SECTION.

Attachment A

The following table summarizes the institutional remedial plans accepted by the Commission October 2001, listing the placement or challenge test for each institution with the cut score following the assessment, the frequency the tests are available, institution's arrangements for providing access to remedial courses, and information notification procedures.

<b>INST</b>	<b>PLACEMENT / CHALLENGE TESTS</b>	<b>TEST AVAILABILITY</b>
CC	<b>Mathematics:</b> Accuplacer Elementary Algebra test – 72 <b>Reading:</b> Accuplacer test – 83 <b>Writing:</b> Accuplacer test in Sentence Skills -- 86	Provides assessment testing continually before and during each semester. No cost to student
AIMS	<b>Mathematics:</b> Compass 88 or Accuplacer 72 <b>Reading:</b> Compass 83 or Accuplacer -- 83 <b>Writing:</b> Compass 93-94 or Accuplacer 100	Walk in testing at Greeley; testing by appointment at Fort Lupton and Loveland
CMC	<b>Mathematics:</b> Accuplacer Elementary Algebra test – 72 <b>Reading:</b> Accuplacer test – 83 <b>Writing:</b> Accuplacer test in Sentence Skills -- 86	Provides assessment testing continually before and during each semester. No cost to student
ASC	<b>Mathematics:</b> Adams State developed a Mathematical Placement Exam based on questions developed by the Mathematical Association of America Placement Testing Program -- 19 <b>English:</b> Adams State English Placement – 46 <b>Reading:</b> CAAP Reading Test – 22	Testing is free but each enrollment in remedial course is \$50.
CSM	<b>Mathematics:</b> NA – CSM does not admit students who score below 25 on Math <b>Reading:</b> CSM developed reading test; scored by 2 readers <b>Writing:</b> CSM developed writing test; scored by 2 readers	Prior to registering for first semester courses
CSU	<b>Mathematics:</b> For students with ACT scores 19 or above -- CSU's Mathematics Placement Exam. For others: Entry Level Mathematics Exam that was written to align with high school exit standards <b>Writing:</b> CSU's Composition Placement exam with a score of 3 out of 6. Scoring guidelines parallel ACT essay guides.	Orientation sessions
FLC	<b>Mathematics:</b> FLC Mathematics Placement Exam with score of 13 <b>Reading:</b> Accuplacer test – 80 <b>Writing:</b> Accuplacer test in Sentence Skills -- 86	Tested during freshmen orientation session before registering for class. Additional test dates continuously between first day of class and census date.
MESA	<b>Mathematics:</b> Compass -- 50 <b>Reading:</b> Compass – 76 <b>Writing:</b> Challenge by writing an essay score 3 on 6 point scale. <sup>3</sup>	ACT scores are available before students register. Challenge essays may be written anytime. Compass is a computer-based assessment and scores area available immediately.
METRO	<b>Mathematics:</b> MSCD developed test -- 9 out of 15 <b>Reading:</b> Nelson Denny Form G 84 <b>Writing:</b> 30 minutes to write essay; scored by faculty using Educational Testing Service scoring guidelines. -- 3	Assessment testing by appointment

<b>INST</b>	<b>PLACEMENT / CHALLENGE TESTS</b>	<b>TEST AVAILABILITY</b>
	out of possible 6	
UCB	Alternate demonstration of college readiness: Analyze high school transcripts, including enrollment in AP courses in English or Math, four or more years in English or Math with passing grades in all courses.	Students will be advised to enroll in at a community college course during the first semester of college enrollment.
UCCS	Opportunity to retake ACT exam  Alternate demonstration of college readiness: Analyze high school transcripts, including enrollment in AP courses in English or Math, four or more years in English or Math with passing grades in all courses.	In addition to the state ACT test date, national test date, UCCS offers the ACT exam at its testing center (\$33).
UCD	<b>Mathematics:</b> Accuplacer Elementary Algebra test – 72 <b>Reading:</b> Accuplacer test – 83 <b>Writing:</b> Accuplacer test in Sentence Skills -- 86	Contracts with CCD to test transfer and freshmen without ACT scores students using the Accuplacer.
UNC	<b>Mathematics</b> Accuplacer Elementary Algebra test – 50 <b>Reading:</b> Accuplacer test – 56 <b>Writing:</b> Accuplacer test in Sentence Skills – 66	UNC offers on-line and paper versions of Accuplacer test at the Career Services Testing Center
USC	<b>Mathematics:</b> USC Placement exam scoring at Intermediate Algebra mastery level; worked with ACT on scoring guidelines <b>Reading:</b> Accuplacer test – 81 <b>Writing:</b> USC proctored 300 – 500 word essay scored by 2 faculty.	During Student orientation or by appointment at USC’s Learning Center
WSC	<b>Mathematics:</b> MAA Basic Algebra – 16 <b>Reading:</b> WSC English Placement I -- 15 <b>Writing:</b> WSC English Placement II – 18	Placement tests offered during orientation sessions.

<b>INST</b>	<b>DELIVERY</b>			<b>STUDENT INFORMED</b>	<b>INFORMATION ON REMEDIAL COURSE AVAILABILITY</b>
	<b>REGULAR COURSE</b>	<b>CASH FUNDED</b>	<b>CONTRACT WITH CC</b>		
CC	X		NA	Writing	Published in course schedule, catalog, and on web site.
AIMS	X		NA		Published in course schedule, catalog, and on web site.
CMC	X		NA		Published in course schedule, catalog, and on web site.

**2001 Activity Summary  
Academic Advising Center  
University of Colorado at Denver**

The Academic Advising Center was established in October, 2000. Several months were spent preparing the offices, setting up equipment and establishing policy for the center. At that time all students were seen by the Director (Cindy Anderson) and her Assistant (Alan Christenson.)

During the Spring 2001 semester, two advisors were hired. By July the center was staffed fully by four full-time professional advisors. Two of the advisors have Master's degrees and two are working toward completing Master's degrees. Training took place during July, 2001. Representatives from all departments that interact with advising made presentations during the training sessions.

**The AAC has adopted a developmental model of advising. Advisors work with students to help them learn how to make decisions and to set life and career goals. While advisors also assist with degree program selection and course scheduling, the primary goal is to help students grow, both academically and personally. The advisors make referrals to other professional offices on campus when appropriate.**

**Students assigned to the center include all students with fewer than 40 completed credit hours; Pre-Business and Pre-Engineering students prior to admission to the College of choice or selection of an alternative major; and CLAS Undeclared students with fewer than 80 credit hours. We encourage major declaration at 60 credit hours.**

**Beginning with fall, 2001, all students assigned to the advising center had advising flags entered on their record. They were required to visit the advising center to meet with an advisor to have the flag lifted. This was a change for many of the students but was generally well-received. By spring 2002 most students expected to appear in the advising center for an appointment with an advisor.**

In June, 2001 we negotiated purchase of an electronic advising system developed by staff at Colorado State University. The system is web-based and provides a record of all student contacts in the advising center. As more staff become trained in use of the system, we expect that communication between college advising offices to improve dramatically. We have already had an opportunity to use records to document conversations with students and what had occurred in an advising session.

The website was developed by Alan Christenson and Kelli Baldner. It provides information for students about all aspects of their educational experience. The web address (linked from the CU-Denver home page) is: [www.cudenver.edu/aac](http://www.cudenver.edu/aac).

We have had many anecdotal comments from students and staff regarding the positive impact the advising center has had on them. We hear from students that they appreciate the information and attention they receive in the center. We also believe that students appreciate the

fact that the center is open until 7:00 p.m. Monday through Thursday, which is an advantage for our non-traditional student body.

**New student orientations were offered several times prior to each semester. These sessions were structured to provide information about degree programs and requirements as well as general information about UCD and the Auraria campus. As part of their orientation, the Accuplacer basic skills assessment was offered. This instrument was used as a placement tool. We have discovered that more accurate placement has contributed to our record retention statistics. Larry Armenta, Director of the Pre-Collegiate program at UCD, has indicated that the students he has tracked have higher GPAs and have completed more Core coursework than previous cohorts. He believes that this is a reflection of the improved quality of advising available to these students.**

The new Academic Advising Center at UCD has been extremely successful. I have attached a report that includes the data we have collected. The time frame we used is September 2001 through January 2002. This is a snapshot of the number and quality of student contacts.

**TOPIC: OVERVIEW OF FY 2002-2003 JBC BUDGET RECOMMENDATION FOR HIGHER EDUCATION - REVISED**

**PREPARED BY: BRIAN BURNETT**

**I. SUMMARY**

The Joint Budget Committee (JBC) finished deliberations on the FY 02-03 spending plan for all of state government agencies on Wednesday, April 3, 2002. The state funds allocated to the capital construction program statewide have been drastically reduced from \$274 million appropriated in FY 00-01 to an estimated \$18 million in FY 02-03. The recommendation for the Department of Higher Education is for an increase in operating funding totaling \$110 million above current funding levels. This includes an across the board recommendation of a 7.7 percent increase in tuition [3 percent above inflation] with some exceptions. The General Assembly has nearly finished deliberations on the "long" bill and the recommendation for the Department of Higher Education has not to date, changed during the legislative process.

**II. BACKGROUND**

Despite the state's difficult economic situation, the Joint Budget Committee has tried to respond to the requests from the Higher Education system for additional resources to assist with additional demands on the system to accommodate more students and enhance the quality of the overall educational program. The budget recommendation for the Department of Higher Education includes some increasing investments in existing programs and some reductions in other areas of the budget.

**III. STAFF ANALYSIS**

Overall, the Department of Higher Education received a healthy increase in funding given the budget outlook. The positive aspects include:

- An increase of \$53.8 million in General Fund from the latest reduced base for the Governing Boards of \$631.9 million, or an 8.6 percent increase.
- A 6.8 percent increase in General Fund support for financial aid, including an additional \$2,000,000 for the Governor's Opportunity Scholarship (GOS) program.

The negative aspects of the JBC spending plan for the Department of Higher Education include:

- A \$1.9 million reduction, or 80 percent cut, in General Fund appropriations for the Advanced Technology Grants (TAG) administered by CCHE for a total of \$545,000 in continuing state support of the program.
- Capital Construction projects drastically cut from a statewide GF appropriation in FY 00-01 of \$274 million to \$18 million GF for all of state government in FY 02-03. Of this estimated \$18 million, approximately \$10 million, or 59 percent, is allocated for Department of Higher Education projects.

#### IV. STAFF RECOMMENDATION

The Commission should be aware that the JBC spending plan is built off of the Legislative Council's revenue estimates for FY 01-02 and FY 02-03. The Governor's budget office, OSPB, has GF revenue estimates that are approximately \$70 million lower than Legislative Council and this difference could impact the ability of the Governing Boards to gain permission to use all of the funds appropriated by the General Assembly.

This difference is already evident as the JBC has agreed to a 2.1 percent overall GF reduction in the current year for the Governing Boards appropriations while OSPB continues to require that the full 3.68 percent GF restricted to date be held and not expended. This difference amounts to a \$10 million "swing" and greatly affects the base calculation for the GF for FY 01-02. The following table reflects these differences in calculating the actual percentage increase based on the differing base assumptions:

<i>Assumption</i>	<i>GF Base Amount</i>	<i>New GF Base Amount Recommended</i>	<i>Increase</i>
Orig. FY 01-02	\$655,325,282	\$685,875,978	4.6%
JBC Adjusted Base	\$642,107,552	\$685,875,978	6.8%
OSPB Restricted Base	\$631,932,515	\$685,875,978	8.6%

The calculations and assumptions for the GF adjustments for the next fiscal year are shown in more detail on Attachment A and Attachment B which follow this issue brief.

Attachment C details the Cash Fund recommendations for FY 02-03, e.g. tuition revenue increases and other cash fund sources for the Governing Boards. These amounts reflect the Committee's recommendation of an across-the-board increase of 7.7 percent for tuition with the exception of community college tuition which would be increased a maximum of 5.7 percent. Some additional tuition differentials were approved along with these increases that are detailed on [Attachment C](#).

**Governing Board General Fund Summary**

Item	Total	State Colleges	Board of Agriculture	CU Regents	Mines	UNC	Community Colleges	Junior Colleges
Summary of Enrollment + Performance Calculation								
FY 2001-02 GF in Long Bill	655,325,282	77,266,967	151,830,392	217,767,222	20,045,150	43,968,595	129,803,119	14,643,837
1st Supplemental	-9,941,103	-1,254,978	-2,466,045	-3,536,999	-325,575	-714,143	-1,405,517	-237,846
2nd Supplemental	-3,276,627	-386,335	-759,152	-1,088,836	-100,226	-219,843	-649,016	-73,219
Subtotal - FY 2001-02 Base	642,107,552	75,625,654	148,605,195	213,141,387	19,619,349	43,034,609	127,748,586	14,332,772
Restore 2nd Supplemental Reduction	3,276,627	386,335	759,152	1,088,836	100,226	219,843	649,016	73,219
Enrollment	19,089,878	4,134,694	4,013,179	4,113,517	258,973	300,248	6,397,966	-128,699
UCHSC Nursing	307,509			307,509				
Decrease Enrollment by \$4.2 Million	-4,222,000	-914,447	-887,572	-909,763	-57,276	-66,404	-1,415,002	28,464
Performance	24,101,599	3,530,531	5,323,511	6,663,426		1,860,457	6,015,158	708,516
Base Increase for Non-performance Agencies	5,307,046		1,723,151	3,583,895				
Colorado School of Mines S.B. 01-229 Contract	926,820				926,820			
Decrease Pefromance (and Mines) by \$4.2 Million	-4,222,000	-595,559	-898,014	-1,124,042	-156,344	-313,837	-1,014,686	-119,518
-25% from FY 2000-01 Actual Out-of-State Travel	-3,547,913	-295,467	-1,040,380	-1,626,066	-166,578	-223,067	-196,355	
Pharm D	702,952			702,952				
CSU Agencies	515,000		515,000					

Increase CSU Vet Med subsidized slots	113,000		113,000						
Buy Down CC Resident Tuition by 2%	1,419,908						1,419,908		
Total GF for Governing Boards	685,875,978	81,871,741	158,226,222	225,941,651	20,525,170	44,811,849	139,604,591	14,894,754	
Increase Over FY 2001-02	43,768,426 6.80%	6,246,087 8.30%	9,621,027 6.50%	12,800,264 6.00%	905,821 4.60%	1,777,240 4.10%	11,856,005 9.30%	561,982 3.90%	
Allowable 6% Inc. for Entire Dept. per Footnote 66	45,242,974								
Difference	1,474,548								

FY 2002-2003 Department of Higher Education Appropriation  
General Fund

Item	FY 2002 General Fund Appropriation	FY 2002 General Fund Reductions	FY 2002 General Fund After Reductions	FY 2003 General Fund Appropriation	\$ Increase/ Decrease	% Change
Administration						
Colorado Commission on Higher Education	\$ 2,174,129	\$ 59,254	\$ 2,114,875	\$ 2,506,993	\$ 392,118	18.50%
Department Centralized Appropriations	\$ 909,403	\$ 19,757	\$ 889,646	\$ 949,912	\$ 60,266	6.80%
Division of Private and Occupational Schools	\$ -	\$ -	\$ -	\$ -	\$ -	
Special Purpose:						
WICHE - Related	\$ 415,800	\$ 108,900	\$ 306,900	\$ 380,619	\$ 73,719	24.00%
Programs of Excellence	\$ 134,855	\$ -	\$ 134,855	\$ 875,467	\$ 740,612	549.20%
Advanced Technology Grants (TAG)	\$ 2,700,000	\$ 300,000	\$ 2,400,000	\$ 458,093	\$ (1,941,907)	-80.90%
Veterinary School Program Needs	\$ 162,400	\$ -	\$ 162,400	\$ 162,400	\$ -	0.00%
Rural Education Access Program (REAP)	\$ 689,850	\$ 689,850	\$ -	\$ 789,850	\$ 789,850	N/A
Early Childhood Loan Repayment	\$ -	\$ -	\$ -	\$ -	\$ -	
Enrollment/Tuition Cash Funds	\$ -	\$ -	\$ -	\$ -	\$ -	
Contingency	\$ -	\$ -	\$ -	\$ -	\$ -	
Subtotal - Administration	\$ 7,186,437	\$ 1,177,761	\$ 6,008,676	\$ 6,123,334	\$ 114,658	1.90%
Financial Aid:						
Need-Based Grants	\$ 40,348,002	\$ -	\$ 40,348,002	\$ 43,550,101	\$ 3,202,099	7.90%
Governor's Opportunity Scholarship	\$ 6,000,000	\$ -	\$ 6,000,000	\$ 8,000,000	\$ 2,000,000	33.30%
Grants for Part-Time Students	\$ 1,250,000	\$ -	\$ 1,250,000	\$ -	\$ (1,250,000)	-100.00%
Merit - Based Awards	\$ 14,874,498	\$ -	\$ 14,874,498	\$ 14,874,498	\$ -	0.00%
Work - Study Awards	\$ 15,359,754	\$ -	\$ 15,359,754	\$ 16,612,357	\$ 1,252,603	8.20%
Other Financial Aid Programs	\$ 7,424,066	\$ -	\$ 7,424,066	\$ 7,983,044	\$ 558,978	7.50%
Subtotal - Financial Aid	\$ 85,256,320	\$ -	\$ 85,256,320	\$ 91,020,000	\$ 5,763,680	6.80%
Governing Boards:						

Trustees of the State Colleges	\$ 77,266,967	\$ 2,840,347	\$ 74,426,620	\$ 81,871,741	\$ 7,445,121	10.00%
State Board of Agriculture	\$ 151,830,392	\$ 5,581,311	\$ 146,249,081	\$ 158,226,222	\$ 11,977,141	8.20%
Regents of the University of Colorado	\$ 217,767,222	\$ 8,005,161	\$ 209,762,061	\$ 225,941,651	\$ 16,179,590	7.70%
Colorado School of Mines	\$ 20,045,150	\$ 736,863	\$ 19,308,287	\$ 20,525,170	\$ 1,216,883	6.30%
University of Northern Colorado	\$ 43,968,595	\$ 1,616,293	\$ 42,352,302	\$ 44,811,849	\$ 2,459,547	5.80%
Community Colleges of Colorado	\$ 129,803,119	\$ 4,083,483	\$ 125,719,636	\$ 139,604,591	\$ 13,884,955	11.00%
Subtotal - Governing Boards	\$ 640,681,445	\$ 22,863,458	\$ 617,817,987	\$ 670,981,224	\$ 53,163,237	8.60%
Local District Junior Colleges	\$ 14,643,837	\$ 538,309	\$ 14,105,528	\$ 14,894,754	\$ 789,226	5.60%
Area Vocational School Support	\$ 11,964,756	\$ 439,827	\$ 11,524,929	\$ 11,660,295	\$ 135,366	1.20%
Sponsored and Job Training Programs	\$ -	\$ -	\$ -	\$ -	\$ -	
Other Programs:						
Colorado Council on the Arts	\$ 1,904,228	\$ 43,811	\$ 1,860,417	\$ 1,907,977	\$ 47,560	2.60%
Colorado Historical Society	\$ 2,762,681	\$ 72,430	\$ 2,690,251	\$ 2,888,917	\$ 198,666	7.40%
Auraria Higher Education Center	\$ -	\$ -	\$ -	\$ -	\$ -	
Occupational Education Administration	\$ 644,022	\$ -	\$ 644,022	\$ 633,561	\$ (10,461)	-1.60%
Advisory Commission on Family						
Medicine	\$ 252,268	\$ 5,262	\$ 247,006	\$ 252,268	\$ 5,262	2.10%
Subtotal - Other Programs	\$ 5,563,199	\$ 121,503	\$ 5,441,696	\$ 5,682,723	\$ 241,027	4.40%
TOTAL - Higher Education	\$ 765,295,994	\$ 25,140,858	\$ 740,155,136	\$ 800,362,330	\$ 60,207,194	8.10%

Notes:

The FY 2002 GF Reduction amounts are based on OSPB's continued additional 1.5% restriction + anticipated savings from hiring freeze.

The increase in GF for Programs of Excellence is due to reduction in availability of indirect cost recoveries-it is appropriated at a continuing level.

Part-time Student Grants were combined with Need-based grants by JBC decision.

The REAP program was unfunded by JBC in FY 01-02 to assist in balancing state budget in current year--these funds would not have been spent this year.

Preliminary Budget Action by the Joint Budget Committee  
FY 2003 Budget

Cash Funds Recommendation

**Governing Board Cash Funds Increases Over FY 2002**

Tuition - 4.7% inflation	28,316,747
3% Recommended Tuition Increase	18,394,986
Tuition - Enrollment Increase	11,184,607
<b>Tuition Differentials Total</b>	<b>2,733,865</b>
UCB - Business	1,097,000
UCCS	842,384
UCD	933,800
UCHSC	401,167
CSU-PVM	879,422
Recommended 2% Tuition Buydown for CCC	(1,419,908)
<b>Total Recommended General Fund Increase for Governing Boards</b>	<b>60,630,205</b>

**CCHE Office Cash Funds Increases Over FY 2002**

<b>Colorado Commission on Higher Education</b>	<b>6,405,615</b>
CCHE Office	3,149,661
Technology Grants	80,000
Contingency	3,175,954
Colorado Historical Society	122,625
<b>Total Recommended Cash Funds CCHE</b>	<b>6,528,240</b>

**Department of Higher Education Cash Funds Increase Over FY 2002**

**67,158,445**

**TOPIC: CCHE-TECHNOLOGY ADVANCEMENT GROUP PROGRAM  
FUNDING FOR FISCAL YEAR 2002/2003**

**PREPARED BY: RICK HUM**

**I. SUMMARY**

The CCHE-Technology Advancement Program was transferred to CCHE from the Colorado Advanced Technology Institute (CATI) on July 1, 1999. A number of actions have taken place to implement recommendations of the Advance Technology Program Performance audit in August 1999. Over the three years of funding through CCHE over half of the original CATI programs have been discontinued and a number of new programs were funded.

This fiscal year a reduction of \$300,000 in program funding was made during the state budget recision process. The JBC has recommended a budget reduction of 75% in the General Fund support for the Technology Advancement Program. With this significant reduction, it is recommended that the seed grant programs be eliminated and funding concentrated on research centers with commitments to match large federal grants with the State's Technology Advancement Program funds and to continue funding the Colorado Advanced Photonics Technology (CAPT) Center which is still completing its capital fund investment of \$4 million in equipment and center improvements.

**II. BACKGROUND**

The Colorado Advanced Technology Institute (CATI) program was transferred to CCHE on July 1, 1999, as a result of passage of HB 99-1359. This legislation provides general direction for the Advanced Technology Program now called CCHE-Technology Advancement Group (CCHE-TAG). A Performance Audit of the Advanced Technology Program was completed in August 1999, which included nine recommendations concerning the direction and administration of the program. The Commission approved the formal Program Plan in March 2000 that provides the framework for annual program review and funding.

A Science and Technology Committee, chaired by Commissioner Dean Quamme, was created to provide direction for the CCHE-TAG program and to make recommendations concerning funding and programmatic issues affecting CCHE-TAG. The Science and Technology Committee (membership is included as Attachment 1) have met several times this year. There have been two rounds of Waste Diversion and Recycling grants reviewed and approved this year, per the delegated authority of the Commission last June. The Science and Technology Committee have also made recommended funding for the unallocated funds in the Advanced Technology Program as shown on Attachment 2.

Reduction in the Technology Advancement Program Funding: During this fiscal year, the TAG program funding from the General Fund was reduced by \$300,000 (from \$2,502,576 to \$2,202,576) in the budget recision process. In the JBC figure setting process, the Committee spent several hours going over the JBC analyst's recommendations. This unfortunately occurred the same day the Legislative Council staff provided a revenue estimate that was reduced by an additional \$220 million for the current fiscal year. The staff recommendation for the Technology Advancement Program fund was a reduction of 75% to \$545,000.

CCHE staff appealed this decision through the "comeback process" to the Governor's budget office, OSPB. A copy of the comeback document is included as Attachment 3. The OSPB elected not to formally take this comeback to the JBC for reconsideration. The lack of a formal comeback from the Governor's Office, along with the state's revenue situation and the fact that few if any of the Governing Board representatives engaged in discussion of this cut in funding, makes it very unlikely that the House or Senate would attempt to restore any of this reduction to the TAG program for next year. In fact there was a motion in the Republican caucus to eliminate the last 25% of the Technology Advancement program funding. That motion passed in caucus, but was motion was withdrawn before consideration on the floor of the House.

The Science and Technology Committee met after the budget figures were set and have determined that the recommended course of action is to provide funding to the Colorado Advanced Photonics Technology (CAPT) Center to protect the \$4 million capital investment made over the past four years to acquire equipment and establish this center; and to fund Technology Advancement Programs and Centers with large federal funds grants that CATI/TAG funds were pledged as matching funds.

Program Funding Recommended to Match Federal Grants: The Science and Technology Committee recommends that funding two existing programs and one new program with federal funding. The small state funding meets the commitments made when the federal grants were proposed. The leverage of these state funds is significant. For example in FY 2001 the leverage was:

- Center for Combustion in Space at Colorado School of Mines
  - State Funds \$ 125,000
  - Industry Funds \$ 347,862
  - NASA Funds \$4,680,237
- Materials and Science for Thin Films at UC-Boulder
  - State Funds \$ 100,000
  - Industry Funds \$ 121,495
  - NSF Funds \$ 160,000
- Ferroelectric Liquid Crystal Materials Research Center (Renewal in Process)
  - State Funds \$ 133,000
  - Industry Funds \$ 33,000

- UCB Funds	\$ 223,459
- NSF Funds	\$1,468,126

The Ferroelectric Liquid Crystal Materials Research Center (FLC-MRC) is a four year-old National Science Foundation Materials Research Center located at the University of Colorado Boulder. It is a multidisciplinary program involving physics, chemistry, and engineering departments. The program has submitted a proposal to the NSF for an additional six years of support. The roots of this program go back two decades and were instrumental in the award to CSU and UCB of the multi-million dollar NSF Engineering Research Center grant for the Optoelectronics Computer Systems Center. The FLC MRC is focused on basic science, commercialization and education involved in liquid crystal materials.

Finding of Substantial Completion of Current Year's Programs: The Audit of the Advance Technology program completed in August 1999 expressed concern that programs were approved for subsequent year funding before the staff could determine that the current year program was completed successfully. To implement the audit recommendations the CCHE-TAG Policy and Procedures Manual has been revised to include an Interim Program Report that has each program describe the success in implementing the current year program and anticipated success in the completion of the program by the end of the fiscal year. We have received Interim Program Reports from all programs and find that each program is making acceptable progress. Staff suggests the funding award by the CCHE be conditioned on successful completion of this year's program as evidenced in an acceptable final set of program reports.

Unallocated Available Funding: Because the Center for Membrane Applied Science and Technology (MAST) may be funded substantially from the Advanced Technology Fund (see below), there may be up to \$100,000 in unallocated funding. If this is the case the Science and Technology Committee will consider alternatives for the use of these funds.

Intellectual Property Agreements: The current contracts include a provision that CCHE-TAG would share in any intellectual property revenue that results from projects funded with CCHE-TAG funds. The share is proportional to the funding contributed.

Advanced Technology Fund: The Advanced Technology Fund was established in by HB 00-1430. The fund will receive one-third of the Waste Tire Fund revenue on a continuing basis – an estimated \$800,000 annually. Revenue transfers to the fund are allocated quarterly. The funds in the Advanced Technology Fund are limited for the following purposes:

“...to finance research, development, and technology transfer with regard to waste diversion and recycling strategies, and shall include research, development, and technology transfer regarding waste tires.” C.R.S. 23-1-106.5 (9)

The Commission adopted policies, priorities and criteria for the selection of projects on

October 5, 2000. The staff prepared and released a request for proposals and 17 projects were submitted for the first round of funding. Nine of the 17 projects were approved for funding and those projects have all proceeded. A second round of proposals were solicited and eight proposals were received. Five of the eight proposals were funded and will be proceeding. Since the funds in the Advanced Technology Fund are continuously appropriated to the Commission and any remaining funds and interest earned are to remain in the fund, there is no need to award all funds during a specific year. Staff intends to provide additional approval cycles each year, as funds are available. A summary of the funds in the Advance technology fund and the projects approved in the first two rounds of funding are included as Attachment 4.

### **III. COMMITTEE/STAFF RECOMMENDATION**

**The Science and Technology Committee recommends approval of the funding totaling \$545,000 for four programs as specified in the Recommended Program Funding table (Attachment 2). The funding for each individual program is conditional pending successful completion of the FY 2001/2002 programs. The Committee also recommended that the Commission delegate the authority to adjust any individual program amount within the total approved amount to the Executive Director, if any funds are unused. Further, it is recommended that the Commission delegate to the Science and Technology Committee and the Executive Director the authority to approve any additional funding with the uncommitted funds available and to approve funding of the Waste Diversion and Recycling project grants from the Advanced Technology Fund. The staff will provide a written report of the remaining awards and fund balances to the Commission.**

Attachments:

1. Science and Technology Committee Membership
2. CCHE-TAG FY 2002/2003 Recommended Funding
3. Comeback form submitted to OSPB
4. Advance Technology Fund Balance and Funded Projects

## **CCHE – TAG Science and Technology Committee Membership**

**Dean Quamme** Environmental Restoration Services, LLC. Past member of CATI commission. Current member of Colorado Commission of Higher Education

**James M. Stewart** Technology Vectors, Inc. Current member of the Colorado Commission of Higher Education

**Merc Mecure, Ph.D.** CEO, CMD Optics. Founder of Ball Aerospace, very active in the Photonics industry in the state. Previous CATI Commissioner. Currently serves on the Colorado Advanced Photonics Technology Center Board.

**Jerry Donahue**, President University Technology Corporation. Jerry Donahue is on the OIT Science and Technology Committee.

**Mary Petryszyn** Raytheon Systems.

**SueAnn Ambron** Dean of the University of Colorado at Denver Graduate School of Business. A previous entrepreneur in Silicon Valley, taking concepts from her work as a college professor and developing her own business.

**Representative Ron May** – Colorado Springs legislator who has headed several IT Committees and is interested in technology issues.

**Representative Bill Swenson** – Longmont legislator who served on CATI Commission and has long-term interest in technology/technology transfer issues.

**Louis Junker**, Director, Process Development, Sulzer Orthopedics Biologics, Inc.

Representing other organizations:

**Dean M. Stevinson**, Director OIT Science and Technology Commission

**John Hansen**, President and CEO, Colorado Institute of Technology

<b>CCHE - TAG FY 2002/2003 Recommended Program Funding</b>			
<b>Revenue Sources</b>	FY 2001/2002 Actuals	FY 2002/2003 Proposed	FY 2002/2003 JBC Recommended
General Funds for TAG Programs	2,502,576	2,202,576	545,000
Tire Tap Funding through DOLA	107,200	-	-
Total Estimated Funding: General Fund + TireTAP	<b>2,609,776</b>	2,202,576	545,000
The other operating was reduced to a minimum based on a <b>Budget Recision</b>	<b>(300,000)</b>		
<b>Revised Program Budget</b>	<b>2,309,776</b>	2,202,576	545,000
<b>Current TAG Programs</b>	<b>Current Program Funding for FY 2001/2002</b>	<b>Original Program Funding Proposal</b>	<b>Reduced Program Funding Proposal</b>
Colorado Bioprocessing Center	261,786	-	
CAB-Bioscience Seed Grant Administration	500,000	500,000	
Total Bioscience Programs	761,786	500,000	
Colorado Advanced Photonics Technology Center	146,155	186,155	186,155
Colorado Advanced Software Institute	272,355	272,355	
Colorado Photonics and Optoelectronics Program	342,000	342,000	
Rural New Economy Initiative	272,280	272,280	
Total Information Technology Programs	1,032,790	1,072,790	
Colorado Advanced Materials Institute	218,000	-	
Center for Commercial Applications of Combustion in Space	125,000	125,000	125,000
Center for Membrane Applied Science and Technology	100,000	100,000	100,000
Tire Recycling Technology Assistance Program	107,200	-	
Total Advance Material Programs	550,200	225,000	
CU-BAC NSF FAST Grant Match	50,000	-	
Total Contracted Program Funding	2,394,776	1,797,790	411,155
ATF Portion of MAST Grant	(85,000)	(75,000)	to be determined
<b>Recommended Adjusted Program Funding</b>	<b>2,309,776</b>	<b>1,722,790</b>	<b>411,155</b>
<b>Estimated Remaining Funding Available</b>	<b>-</b>	<b>479,786</b>	<b>133,845</b>
New Program Proposals For FY 20002/2003			
Ferroelectric Liquid Crystal Materials Research Center		223,459	133,845
New Venture Creation: Entrepreneurship Applied to Tech Transfer		191,257	-
Total possible funding for new programs		414,716	133,845
<b>Total Recommended Program Funding</b>	<b>2,309,776</b>		<b>545,000</b>
<b>Unallocated Available Funds</b>		65,070	-
Note: If funding for the MAST Center is provided from the Advanced Technology Fund, then some of the \$100,000 anticipated in this analysis, may be available for other purposes.			

## FY 2002-03 Budget Comeback Request

**Title:** Continued Funding for Advanced Technology Grants

**Program:** Advanced Technology Grants

**Department:** Higher Education

**Department Priority:** Comeback #1

FY 2002-03					
	Base Appropriation	Decision Item Request	JBC Action	Comeback Request	Difference between Action and Comeback Request
<b>Total</b>	\$3,109,776	0	\$1,452,200	\$3,109,776	\$1,657,576
<b>FTE</b>					
<b>GF</b>	\$2,202,576	0	\$458,093	\$2,202,576	\$1,744,483
<b>CF</b>					
<b>CFE</b>	\$907,200	0	\$994,107	\$907,200	
<b>FF</b>					

### Summary of Request:

The Department of Higher Education's original request was for continued level of funding for Advanced Technology Grants for FY 2002-2003.

### Committee Action:

The Committee approved a decrease in funding for Advanced Technology Grants of \$1,744,483 in General Fund for FY 2002-2003.

### OSPB Comeback:

#### Background on CCHE-TAG

CCHE-TAG appropriations (formerly Colorado Advanced Technology Institute) have played an indispensable role in triggering additional sources of federal and private funds critical to new technology development, new business startups, and eventually thousands of jobs. CCHE-TAG's General Fund appropriation has consistently been leveraged 10-to-1 in follow-on funding for our research universities. This leverage is especially crucial because

it directs university research toward activity of commercial relevance to Colorado high technology industries. CCHE-TAG funding has been especially useful in helping small high technology businesses grow and develop in Colorado. Small, rapidly growing high technology businesses are a major contributor to new jobs in our economy.

CCHE-TAG is the only source of funding for state matches of federal funds for federally supported centers of excellence located in Colorado research universities. Without this funding source our universities will be unable to compete for these prestigious research centers. These centers provide millions of dollars of research money to the universities and are a source of highly trained students, many who join Colorado industry and contribute to our high-tech economy. A number of Colorado's high-tech companies have their roots in these centers.

Colorado has been very effective in attracting venture capital. Much of this follow-on capital just wouldn't be there if our state did not display its interest in this major economic development engine by continuing to fund university-industry collaboration. Without the continued stimulation from the state, this collaboration will dramatically decrease because of the limited financial resources available to small firms for this type of research. Start-up companies are often formed by students from Colorado universities and make up a significant portion of new high technology companies in Colorado. More than 15 companies spun off from the technology developed through CCHE-TAG and CATI funding in photonics.

At the same time, the beneficial effect on our students can't be overemphasized. CCHE-TAG seed grant projects, typically a year long under the guidance of a faculty researcher, involve students at the undergraduate and graduate levels with cutting edge research on real technology problems faced by industry in the state instead of mere textbook problems. In FY 2001, 159 research projects were funded and 182 student researchers were supported. In addition, 783 students and 477 faculty members participated in a CCHE-TAG research project in FY 2001. CCHE-TAG funds leverage the billion dollars general education investments made in Colorado universities by state and federal government toward industrially relevant research collaborations to grow Colorado's economy of the future.

#### **Technological Programs/Research Sponsored by CCHE-TAG Grants**

TAG operates in three technology areas, listed below with specific examples of the kinds of technology projects CCHE-TAG programs have supported with their industry partners:

- Rural Technology: Internet uses to increase health clinic productivity, technology in education, local elected official training in telecommunications, small business use of the Web, Internet for seniors, marketing art on the Internet, legal issues in e-commerce, introduction to Web authoring
- Biotechnology: blood oxygenators, hydrating drinks, microfiltraton of viruses, dental restoratives, heart murmur diagnosis, synthetic bones, devices to help stroke

victims, soil decontamination, diagnosis of esophageal diseases, MRI technology, biochips, ground water contamination, artificial joints, nanostructures

- Information Technology: cellular phone transmission technology, data mining, robotic navigation, software design, architectural design, photodetector materials, transparent conductors, measurement of respiratory oxygen, fiber optics transmission technology, liquid crystal computer displays
- Materials Science: manufacture of glass fibers, fatigue of aluminum joints, high temperature alloys, superconductors, atomic layer growth of thin films, new lens technology, fouling behavior of microfilters, battery technology, flue gas mitigation, light filters, magnet studies for mass data storage

**Federal and Private Funds Secured by CCHE-TAG Grants**

CCHE-TAG helps secure federal and private funds in a variety of ways. First, CCHE-TAG provides state match to certain federally funded research and development centers. The state match is essential to the competitiveness of these centers in attracting federal funds. Second, CCHE-TAG projects themselves receive federal and private sector match. And third, these projects often result in follow-on funding without additional state funding. In general, the cash match and follow-on funding is leveraged about 10-to-1 on the initial state investment. The following table illustrates this fact.

<b><i>Project Source of Funds</i></b>				
<b><i>Fiscal Year</i></b>	<b><i>State General Fund</i></b>	<b><i>All Other Sources</i></b>	<b><i>Follow-on Non-State Funding</i></b>	<b><i>Students Involved</i></b>
FY 2000/01	667,732	6,534,971	6,204,621	104
FY 1999/00	874,665	6,767,698	9,460,850	138
FY 1998/99	692,148	5,804,435	9,257,782	80
FY 1997/98	743,561	5,337,557	6,689,368	120
FY 1996/97	728,258	5,958,632	11,910,367	142

**ATF - Waste Diversion and Recycling Projects Approved - Round 1**

Submitted By	Title	Principal Investigator	Amount Funded
ADA	Improved Sorbents for Arsenic Removal from Drinking Water Supplies	Broderick	54,128
ADA	Dental School Amalgam Recycling	Turchi	53,872
CDPHE	CRT Recycling Project per HB 01-1106	Harley	74,000
DU	Accelerating Production and Consumption of Crumb Rubber from Colorado's Discarded Tires.	Amme	49,413
UCB	Xeolite Membrane for Waste Minimization in Chemically Challenging Environments	Noble	50,124
UCB	High Toughness Rubber-Modified Concrete	Xi	50,000
UCD	Identification and Quantification of Waste Water Contaminants from Paper Mills Using Old Corrugated Containers	Anderson	34,278
UCD	Development and Transfer of Phytoemediation Technology in Colorado	Ramaswami	69,990
UCD	The Application of Spent Yeast in Remediation of Metal-Contaminated Soils	Roane	28,325

Total Funding Round 1 464,130

**ATF - Waste Diversion and Recycling Projects Approved - Round 2**

Submitted By	Title	Principal Investigator	Amount Funded
DU	Expanding Markets for Colorado Crumb Rubber: Playgrounds and Airports	Robert Amme	65,400
PureVision Tec	Preliminary Feasibility Assessment of Recovering Cattle Manure in the PureVision Process to Produce Useful Resources in Colorado	Carl Lehrburger	54,998
CU-Business A	Research to Transfer Waste Diversion Technology	Karen Eye	60,148
CU-Business A	The Construction and Demolition Waste Diversion and Recycling Research and Commercialization Project	Karen Eye	32,210
CSU	Bio-Waste Disposal and Utilization in Colorado	John Scanga, Ph.D.	59,853

Total Funding Round 2 272,609

**Advanced Technology Funds - Received and Awarded**

Date	Activity	Revenue	Commitments	Uncommitted Balance
7/1/01	Balance from FY 2001	705,183.31		705,183.31
9/30/01	1st Quarter Revenues	110,756.88		815,940.19
9/30/01	1st Quarter Interest	6,391.00		822,331.19
12/19/01	Round 1 Projects Approved		464,130.00	358,201.19
12/19/01	MAST Funding for FY 2002		85,000.00	273,201.19
12/31/01	2nd Quarter Revenues	199,385.33		472,586.52
12/31/01	2nd Quarter Interest	10,275.00		482,861.52
1/31/02	January Interest	3,652.00		486,513.52
2/28/02	February Interest	3,975.00		490,488.52
4/4/02	Proposed Round 2 Funding		272,609.00	217,879.52

**TOPIC: COLORADO STATE UNIVERSITY (CSU) STUDENT HOUSING PROJECT**

**PREPARED BY: JOAN JOHNSON**

**I. SUMMARY**

Colorado State University is seeking to build a 102,600-gross-square-foot undergraduate student housing complex of four stories on Pitkin Street in the southwest corner of the Main Campus. The complex would consist of 175 four-bedroom, four-desk residential units, each sharing a common bathroom. It would not have its own dining facility nor would kitchen units be available. Residents would be able to buy food service from existing campus facilities. Originally submitted to CCHE for evaluation and approval in October, 2001, the Commission, at the November, 2001 meeting, asked the University to put out an RFP or solicitation to see what interest there was by the private sector for building and operating such a facility. CSU did send out such a solicitation and received eleven submittals which they narrowed to the three developers they considered to have the best proposals: Phelps Program Management, Allen & O'Hara Education Services, and Ambling Companies. The Project Estimates and Operating Budgets for the three private developers and CSU are shown in the enclosed attachments. In the RFP that was sent out, CSU also asked interested parties to talk about constructing apartment-style housing for students on two South Campus sites. CSU conclusions were that none of the developers submitted proposals that met their housing objectives on the Main Campus site; i.e., experience with construction and operation of an undergraduate residence hall facility with shared and separate food service. Thus, CSU proposes to proceed with privately-owned development on leased land on the two South Campus sites and select a design-build firm to complete the Main Campus project. CSU believes their financing and operating costs are lower than those proposed by any of the private developers. The university would select the design-build firm in a competition to ensure they are obtaining the best value for the project.

**II. BACKGROUND**

As mentioned above, Colorado State University submitted a program plan to CCHE for a New South Residence Hall on the Main Campus on October 3, 2001. The plan was for new construction of 102,600 gross-square-feet at a cost of \$16,508,740. Because the project would be an auxiliary enterprise, funded, operated and maintained with revenues from residence hall room rental and food sales, it qualified as a SB 202 project for expedited review and approval. The Commission at the November 2001 meeting asked CSU to put out an RFP to see if the private sector had any interest building and operating such a facility. On March 15, 2002, Ron Baker, Director of Facilities Management for CSU, sent a number of

documents to CCHE, detailing the Solicitation for bids and CSU's conclusions for the project based on the information they received. Commission members received copies of these documents at the April 2002 Commission meeting. Included in the Solicitation put out by CSU were two other projects for graduate students and possibly faculty on two other sites on the South Campus. Submitted with the program plan for this project was the CSU Student Housing Long Range Plan. This recommended a three-phase approach to deal with housing needs. The New South Residence Hall is the first phase; the second phase deals with the two projects for apartment-style housing described above and the third phase would entail the demolition of two outdated, 1950s-era residence halls, Newsome and Ellis Halls, which would be replaced after 2004 with suite-style housing. CSU had, early on, discarded the possibility of a private developer constructing, operating, and maintaining the new undergraduate student housing complex. They concluded that there would be better integration of student life and academic programs if the University owns and operates the facility. They also believe their maintenance of the facility would be better than that of a private developer. Cash Funds Exempt from a bond issue would be used for the project with revenue generated from rents and food service charges used to pay off the bond debt.

### **III. STAFF ANALYSIS**

At the suggestion of some Commissioners, we contacted nine CSU peer institutions to find out how they finance and operate their student housing. Thus far, with six institutions out of the nine responding, only one, Oregon State University, had any privatized student housing on their campus. Oregon State had one residence hall they built and then turned over to a private contractor to operate and maintain. The university has since taken back operation and maintenance due to dissatisfaction with the private contractor's work.

We have expanded the summary sheet CSU included in the documents received in March. We believed the information contained on the summary sheet was not complete enough for the Commission to make an informed decision. You will find this more detailed information on the enclosed attachments. We believe these summary sheets more accurately describe the project and compare, at least most of the time, "apples to apples." In order to get more apples to apples we had to take financing costs and ground lease payments out of the tables, although they are each set forth below the line.

Other questions staff has compiled for CSU to respond to include:

1. Why is the CSU interest rate so much lower than the private companies? According to one outside analysis of this project, the difference should be only five basis points between the institution rate and a third party without a ground lease.
2. Please elaborate on the operating cost differences, particularly the utilities and the general and administration costs.

3. Using the CSU numbers, there are major differences in the required rental cost per student/per semester between the private companies and CSU. Please elaborate on what factors you used to compute these costs.
4. CSU needs to expand its explanation as to why they believe they would provide better integration of student life and academic programs if the University owns and operates the facility.
5. In the March documents, CSU included a partial transcript of the interviews with the private companies. We would like to know if you asked the Ambling Companies why they did not believe this project was really appropriate for privatization.
6. Why are the private developers subject to the City of Fort Collins development fees and not able to connect to existing university utilities as CSU can do?
7. Please comment on the different project estimates detailed in Attachments A1 and A2.

**IV. STAFF RECOMMENDATION**

**That the Commission ask CSU to provide written responses to the above questions and discuss the answers and the project with CSU officials at the May 2, 2002, Commission meeting before making a final decision on this project.**

## **Appendix A**

### **STATUTORY AUTHORITY**

**23-1-106.** Duties and powers of the commission with respect to capital construction and long-range planning. (1) It is declared to be the policy of the general assembly not to authorize or to acquire sites or initiate any program or activity requiring capital construction for state-supported institutions of higher education unless approved by the commission.

(2) The commission shall, after consultation with the appropriate governing boards of the state-supported institutions of higher education and the appropriate state administrative agencies, have authority to prescribe uniform policies, procedures, and standards of space utilization for the development and approval of capital construction programs by institutions.

(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 construction 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.

**TOPIC:                   REPORT ON RECIPROCITY AGREEMENTS**

**PREPARED BY:       WILLIAM G. KUEPPER**

**I.       SUMMARY**

Colorado participates in several bilateral and multilateral agreements with other states, which permit Colorado students to attend institutions in those states paying less than non-resident tuition rates. These agreements are intended to make efficient use of state resources and to increase educational opportunities for Colorado students.

This report focuses particularly on those agreements which are negotiated at the state level by the Commission, and for which the Commission has maintained an oversight role under provisions of Colorado Statute 23-1-112 (Appendix A). Colorado participates in bilateral agreements with two states—New Mexico and Utah. It also is an active participant in multi-lateral agreements through three programs administered by the Western Interstate Commission for Higher Education (WICHE). During the current year over 2,000 Colorado students are studying in other states and a similar number of students from those states are in Colorado under these agreements.

There are several matters related to reciprocity agreements that the Commission may wish to discuss. These include the terms of the imminent renewal of the Colorado/New Mexico agreement, whether or not Colorado should negotiate new agreements with Utah, and if the state is receiving maximum benefits from its substantial involvement with the WICHE exchange programs.

The report provides a context for agenda item IV, C: Reciprocity Agreements With Other States. No action is requested of the Commission.

**II.       BACKGROUND**

There are several potential advantages to be gained by students, by institutions, and by states from reciprocal tuition agreements and related forms of student exchange programs. These include: Expanding affordable educational opportunities; providing access to programs not available in the state; assisting in meeting workforce needs; increasing the cost-effectiveness of low-enrollment programs; helping to attract a diverse student body; and reducing the financial burden on taxpayers.

The agreements are basically of two types—bilateral with one other state, and multi-lateral with several states through the WICHE. Each of the various reciprocity agreements

Colorado has initiated and the exchange programs in which the state participates is intended to provide one or more of these advantages.

### **Bilateral Agreements**

#### New Mexico

The reciprocity agreement with New Mexico and the resulting exchange program is by far the largest of the three bilateral agreements in which Colorado students and institutions participate. CCHE developed an informal arrangement with New Mexico during the 1970s and in the 1981-1982 academic year initiated a formal agreement. Initially, one institution from each state participated--Trinidad State Junior College and San Juan College in Farmington, New Mexico. The major incentive for New Mexico's participation was to provide affordable access to nearby Colorado institutions for people living in Northern New Mexico.

It soon became apparent that having only these two institutions participate was creating a substantial imbalance in enrollment. After two years, Trinidad, had served over fifty more FTE students from New Mexico than Farmington had from Colorado. Because the Colorado legislation authorizing the agreement required a one-for-one exchange, various means were attempted to bring the numbers into balance. By 1985, it was obvious that a significant expansion in the number of participating institutions in both states was needed to, 1) provide access to Colorado institutions to a greater number of residents of Northern New Mexico, and 2) create a balance in the number of students exchanged between the two states. The agreement in 1985 expanded the number of participating Colorado institutions near the New Mexico border, opened up virtually all of New Mexico's colleges and universities to Colorado reciprocity students, and increased to 200 the number of FTE students that each state would accept. Since then, the number of FTE students permitted has grown to 300, and other modifications have been made, but the 1985 agreement has basically defined the program for the past 17 years.

At the present time, six Colorado institutions participate in the program: Adams State College, Fort Lewis College, Lamar Community College, Pueblo Community College (at its Southwest Center), San Juan Technical College, and Trinidad State Junior College. In New Mexico, all public institutions are open to Colorado students under the reciprocity agreement except for the New Mexico Military Institute, and the University of New Mexico's Schools of Law and Medicine.

Recent enrollments are shown in Table 1. Having been in the upper 200 FTEs for several years, the enrollment of New Mexico students in Colorado under the agreement began to drop in 1997-98 and fell away dramatically two years later. This coincided with the implementation of the New Mexico Lottery Success Scholarship Program. The scholarships must be used at New Mexico institutions and taken up upon graduation from high school.

Therefore, reciprocity students not only cannot take the scholarships into Colorado, they, also, lose all eligibility for the scholarships by beginning college under the reciprocity. The number of New Mexico reciprocity students in Colorado bottomed out in 2000-2001 at 227 FTE students. A combination of a reassignment of FTE allocations and more aggressive recruiting saw a substantial jump in enrollments in 2001-2002. A more precise analysis of the increase will be made after final and detailed enrollment data are available for the year.

CCHE staff have requested that New Mexico consider allowing its students who have started college at a Colorado institution participating in the reciprocity program to retain some Lottery scholarship eligibility upon returning to school in New Mexico. A positive response to that request could not come before next year's legislative session. The greatest impact of the Lottery scholarships on reciprocity enrollments may have already been felt. Because of a potential shortage of funds, the scholarships could decrease in value over the next few years.

The New Mexico CHE will act upon a new three-year agreement at its June 2002 meeting. CCHE has the agreement on its May agenda for discussion.

**Enrollment in CO/NM Reciprocity  
Table I**

<b>Year</b>	<b>Colorado</b>	<b>New Mexico</b>
1995-1996	291	268
1996-1997	298	290
1997-1998	276	272
1998-1999	271	282
1999-2000	239	269
2000-2001	227	278
2001-2002	283 (not final)	285 (not final)

Utah

CCHE has approved two reciprocity agreements between institutions in Colorado and Utah. In October 1996, the Commission approved an agreement between all locations of Colorado Northwestern Community College and outlying campuses of Utah State University at Logan and the Uintah Basin. A second agreement was approved in June 1998. It allowed Utah students to attend Mesa State College and Colorado students to at the College of Eastern Utah at its campuses in Price, Moab, Blanding, and Green River. Like the agreement with New Mexico, these are based on the closest college concept, and remains limited in scope.

Both programs have shown an imbalance in participation, with more Utah students coming to Colorado. Data from Mesa State for this year show a ten to one ratio, a condition that is far

from reciprocal and that must be corrected. CCHE staff are in contact with staff at the Utah System of Higher Education and Utah is interested in continuing these agreements. A key issue will be what changes can be made to bring the enrollments into balance. Alternatives to the present arrangements are being discussed with participating Colorado institutions. These include folding the two agreements into one. Unlike New Mexico, Utah does not participate in the Western Undergraduate Exchange. If the current reciprocity agreements between Colorado and Utah were not renewed, it would still be possible for students from the two states to enroll under the provisions of WUE.

### **Multilateral Agreements**

Colorado is a member of the Western Interstate Commission for Higher Education (WICHE) and is an active participant in WICHE's student exchange programs. WICHE was created to encourage and facilitate cost-effective educational service delivery among member states that now number 15. A major activity of WICHE is the promotion and administration of its three student exchange programs: the Western Undergraduate Exchange, the Western Regional Graduate Program, and the Professional student Exchange Program. All three programs are designed to provide additional educational opportunities for students from participating states.

Two of the three, the Western Undergraduate Exchange and the Western Regional Graduate Program, are built on the concept of multi-state reciprocity. In these two programs, a student from Colorado can attend a participating institution in another state at considerably less than non-resident tuition. In turn, participating Colorado institutions afford WICHE students from other states the same advantage. Throughout the history of these programs Colorado has been a major player, sending and receiving substantial numbers of students each year.

#### Western Undergraduate Exchange

The Western Undergraduate Exchange (WUE) is the largest and fastest growing of the WICHE exchange programs and Colorado is an active participant. Over 16,000 students enrolled in Fall 2001 (Attachment A). WUE students pay 150% of the in-state tuition of the institution they are attending. The institution receives no FTE funding for WUE students. The 150% is considered to be sufficient to cover the marginal costs of a student participating in a program that has excess capacity. Some institutions are finding this amount to be insufficient but the WICHE Commission has declined to raise that percentage.

This academic year, 1,671 WUE students are in Colorado while 1,614 Colorado WUE students are studying in other WICHE states. Inbound students are slightly down from the previous year while outbound numbers are up. Colorado leads all states in the number of institutions participating in the Western Undergraduate Exchange. Fourteen of the state's two-year institutions are in WUE as are thirteen of the baccalaureate and graduate institutions. These institutions and their WICHE enrollments are attached as Attachment B.

The most obvious omission is the University of Colorado at Boulder which attracts as many out-of-state students as it can accept without discounting tuition.

The University of Northern Colorado has more WUE students enrolled than any other Colorado institution, 549 in Fall 2001. UNC has tightened admission requirements for WUE students and expects that this number will decline significantly. CSU already had reached that decision, treating WUE as a scholarship program. The impact on enrollment is not yet clear, although the institution had 308 WUE students enrolled last fall, the second largest WUE contingent in the state. At both UNC and CSU, significant numbers of New Mexico students enroll under WUE. This is why New Mexico sought to have the two institutions included in the CO/NM reciprocity agreement. The University of Southern Colorado has over 200 WUE students, with over one-third of them from New Mexico. That university is being proposed for inclusion in the new reciprocity agreement with New Mexico.

The inbound and outbound enrollments are contained in Attachment A. Of the three leading suppliers of WUE students to Colorado, two, Wyoming and New Mexico, border Colorado while the third, Hawaii, is the most distant. WUE students select a wide range of majors. Typically no degree program enrolls more than 20% of the total WUE students at an institution. Some enrollment patterns do clearly indicate the appeal of a particular major or cluster of majors. These include agriculture and natural resources at CSU, kinesiology and programs leading to teacher certification at UNC, and, very specifically, horse training management at Lamar CC, and mortuary science at Arapahoe CC.

Currently, Colorado does not accept students from California under the WUE program. Virtually no access is available to California institutions through the WUE. Although WICHE policy permits enrolling California students in WUE, Colorado has chosen not to do so because of the lack of reciprocity from California. Some participating Colorado institutions have expressed interest in enrolling WUE students from California and have asked that this decision be re-examined.

Among Colorado's over 1600 outbound WUE students, the favorite states are Wyoming and Nevada. And the favorite institutions are the University of Wyoming and the University of Nevada at Las Vegas. Part of the latter's popularity is accounted for by interest in that institution's program in hotel administration, a program not offered in Colorado. The 414 Colorado WUE students attending the University of Wyoming are spread over 62 majors. No program has more than 8% of the total enrollment.

Other important destinations of Colorado students are North Dakota, where aviation-related fields are the overwhelming favorites, and Montana, where the students are scattered both by institution and academic interest.

WUE is a decentralized program. Institutions choose whether or not to join, select which degree programs to include, decide how many WUE students they wish to accept, and

determine admission criteria for the students. Colorado institutions wishing to join WUE submit a request to the Executive Director of the Commission.

#### Western Regional Graduate Program

The Western Regional Graduate Program (WRPG) is a similar, though much smaller, exchange program at the post-baccalaureate level. The WRPG includes 117 graduate programs in a wide range of fields. To be included, a graduate program is nominated to WICHE by the institution for inclusion in the WRGP. If a program is judged to have appropriate quality and distinctiveness (no more than four such programs can be offered in the WICHE states), it is approved for inclusion in the WRPG.

WRPG students pay in-state tuition and, in Colorado, institutions receive FTE funding for these students. Graduate students often establish domicile in the state they are studying so they often are WRPG students only for their first year of study.

As is true with the Western Undergraduate Exchange, Colorado is a major player in the WRGP. For several years Colorado has led all other WICHE states in students received and in participating programs (Attachment B). In Fall 2001, 110 students were enrolled in 25 graduate programs at six institutions in Colorado under the auspices of the WRGP. Forty-eight of these students were at the University of Northern Colorado with Special Education being the most popular program. Most of the remainder of the 110 were at CSU or CU-Boulder.

WICHE is currently examining possible reasons for this program being much smaller than the undergraduate one. Among the reasons are that students seeking a master's degree are often employed or have family obligations that make it important to enroll in an institution close to home.

#### Professional Student Exchange Program

The Professional Student Exchange Program (PSEP) is neither an exchange program in the usual sense of the term, nor is it reciprocal. A brief description is included here because it is a program of considerable significance to Colorado State University and its School of Veterinary Medicine and the University of Colorado Health Sciences Center and its program in dentistry.

The Vet Med school is appropriately regarded as a regional asset since about 40% of its enrollment comes from other WICHE states and other states contributed to the expansion of the school. In 2001-2002, the school had 178 students from eight states enrolled through the Professional Student Exchange Program. The sending states pay a support fee to the host institution that allows the student to attend paying something roughly equivalent to the cost if the sending state had its own program. Sending states paid almost \$3.9 million in support fees to CSU this year for the 178 Vet Med students.

The Health Sciences Center has 36 PSEP students currently enrolled in its dentistry program with \$550,000 being paid in support fees by the six sending states. Almost half of the 36 students come from Arizona which has decided to build its own dental school.

On the sending side, Colorado is a minor participant in PSEP. It supports only in the field of optometry. This year the state is paying \$209,900 in support fees for 21 students at eight schools. The legislature has authorized funds for 32 slots in optometry but that number is not being fully utilized.

Colorado has a payback requirement for the optometry students it supports. The optometry graduate can repay either through service (one year of practice in Colorado for each year supported) or cash, or a combination of the two. This requirement is not common to all states that support students through the Professional Student Exchange Program.

### **III. STAFF ANALYSIS**

They are some very good reasons for Colorado to initiate reciprocity agreements and to be an active participant in exchange programs. It is the view of Commission staff that they do, in fact, provide advantages noted above. First and foremost, they expand access to higher education and affordable educational opportunities. They can provide access to an institution close to home, even if that institution is across a state line. They can provide access to an institution far from home that might otherwise be unaffordable. They can provide access to a program that is not offered in the home state or has insufficient capacity to accommodate interested students.

There are several issues related to reciprocity that need to be considered by Colorado and/or by the states with which Colorado has educational agreements. They include:

- If Utah is interested in continuing reciprocity agreements with Colorado, should these be pursued?
- Should the state seek additional bilateral tuition agreements with other bordering states or, on the other hand, rely even more heavily on the WICHE exchange programs?
- Should the state eliminate or reduce the payback requirement in the Professional Student Exchange?
- Are there other professional areas in which Colorado should be supporting students, e.g., osteopathic medicine?
- Should the decision to exclude California WUE students be reconsidered?
- As a rapidly growing state, will Colorado face a shortage of places in post-secondary institutions, and how will this affect exchange programs?
- How will distance education impact the exchange agreements and does the tuition

model employed in the Western Undergraduate Exchange have utility in determining tuition charges for on-line courses?

**Appendix A**

**IV. STATUTORY AUTHORITY**

Authority for the Commission to enter into reciprocal agreements is given in 23-1-112, C.R.C.

“...the commission shall identify those circumstances where the waving of the nonresident differential in tuition rates, on a reciprocal basis with other states, would enhance educational opportunities for Colorado residents. Relative to such identified circumstances, the commission shall negotiate with the other states involved with the objective of establishing reciprocal agreements for the waiving of the nonresidential differential for Colorado residents attending state institutions of higher education in other states in exchange for Colorado state institutions of higher education waiving the nonresident differential for residents of the other states. Agreements negotiated between Colorado and other states shall provide for an equal number of resident and nonresident students to be exchanged between the states. The commission shall establish regulations for the administration of this section, based on the application of the closest college concept...”

**Attachment A**

**Western Undergraduate Exchange  
 Fall 2001 Enrollment Summary**

STATE OF ATTENDANCE (Number of institutions enrolling WUE students)	STATE OF RESIDENCE															Attendance Totals
	AK	AZ	CA	CO	HI	ID	MT	NV	NM	ND	OR	SD	UT	WA	WY	
<b>Alaska (3)</b>	X	4	45	15	2	10	15	4	8	7	22	4	7	37	3	183
<b>Arizona (16)</b>	99	X	64	123	11	30	13	66	71	14	49	9	48	68	29	694
<b>California (1)</b>	4	1	X	0	2	0	2	1	0	0	1	0	0	8	2	21
<b>Colorado (23)</b>	133	83	0	X	252	69	95	71	307	44	89	96	95	65	272	1,671
<b>Hawaii (2)</b>	68	32	451	125	X	26	12	30	21	0	116	31	15	120	7	1,054
<b>Idaho (6)</b>	127	11	0	24	23	X	169	133	8	10	239	8	20	251	73	1,096
<b>Montana (11)</b>	149	12	0	104	7	240	X	33	15	97	108	70	45	205	262	1,347
<b>Nevada (6)</b>	332	93	25	242	758	86	58	X	118	17	260	26	102	153	63	2,333
<b>New Mexico (6)</b>	5	9	24	0	4	1	2	5	X	2	1	1	2	6	1	63
<b>North Dakota (11)</b>	83	25	129	125	34	48	221	46	8	X	68	492	10	135	117	1,541
<b>Oregon (6)</b>	296	20	0	73	321	78	79	74	26	5	X	1	36	303	27	1,339
<b>South Dakota (6)</b>	27	10	67	108	10	17	153	12	12	330	13	X	23	21	647	1,450
<b>Utah (9)</b>	62	49	0	90	20	247	32	180	24	4	54	11	X	42	111	926
<b>Washington (4)</b>	124	17	124	17	66	102	79	10	9	3	90	3	3	X	4	651
<b>Wyoming (8)</b>	38	24	64	568	3	66	420	22	11	35	29	228	81	48	X	1,637
<b>Two-year</b>	105	59	127	282	23	143	453	131	108	70	83	117	161	103	106	2,071
<b>Four-year</b>	1,442	331	866	1,332	1,490	877	897	556	530	498	1,056	863	326	1,359	1,512	13,935
<b>GRAND TOTAL (118)</b>	1,547	390	993	1,614	1,513	1,020	1,350	687	638	568	1,139	980	487	1,462	1,618	16,006



**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 instruction that the Executive Director has certified as meeting the criteria for out-of-state delivery. It is sponsored by the Board of Regents of the University of Colorado and the Trustees of The State Colleges.

**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 of Colorado has submitted a request for out-of-state instructional programs, delivered by Adams State College.

**ED 589: Positive Discipline: A System for Classroom  
Management to be offered in Malaysia from May 3-11, 2002.**

The Board of Regents of the University of Colorado has submitted a request for an out-of-state instructional program to be delivered by the University of Colorado Health Sciences Center.

**"Series of Clinical Medical Instructional Programs During 2002 in Wyoming, Nebraska, and Kansas," described herein as a series of 33 out-of-state instructional programs presented beginning April 24, 2002 in 8 different cities in Wyoming, Nebraska, and Kansas.**

The Board of Regents of the University of Colorado has submitted a request for an out-of-state instructional program to be delivered by the University of Colorado at Colorado Springs.

**"Junior Reserve Officer Training Corps (JROTC) Certification Courses T ED300/500-3 Contemporary American Education, T ED452/552-2 Educational Psychology, and T ED301/501-1-3 Early School Experience Practicum," described herein as a one-year out-of-state instructional program to be offered in Virginia and other possible out-of-state locations from April 22, 2002, to April 21, 2003.**

**"LEAD151-2 Character Education and Community Service and LEAD 150-2 Personal Management and Community Service," described herein as a one-year out-of-state instructional program to be offered throughout the United States, and possibly the American Territories, and at Department of Defense schools worldwide and will run from April 2002 – April 2003.**

**"SPED 594-3 Language! Professional Development Course for Reading Educators and SPED 593-2 Step Up to Writing Basic, Practical and Helpful Writing Instruction with Sopris West Educational Services," described herein as a one-year out-of-state instructional program to be offered in Alabama, Arkansas, California, Florida, Hawaii, Idaho, Kentucky, Michigan, Minnesota, New Mexico, New York, North Carolina, Tennessee, Texas, Virginia, Washington, and other possible locations from April 2002 – April 2003.**

**"SPED591-1 Reading Well in the Primary Grades," described herein as a one-year out-of-state instructional program to be offered in Oregon, Washington, and other possible locations from May 3, 2002, to May 3, 2003.**

**"SPED495/595-2 Summer Institutes 2002," described herein as a one-year out-of-state instructional program to be offered in Florida, Georgia, Michigan, Nevada, Tennessee, Texas, Virginia, and Wyoming. This program will run from June 9, 2002 – August 8, 2002 (these dates may be extended or modified, not to exceed one year).**

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 staff analysis of the concept papers prepared since the last Commission meeting:

*Master of Computer Science at Colorado State University*

The 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 COMPUTER SCIENCE AT COLORADO STATE UNIVERSITY**

**PREPARED BY: WILLIAM G. KUEPPER**

**I. BACKGROUND**

Colorado State University has submitted a concept paper for a Master of Computer Science (M.C.S.) degree as differentiated from CSU's current Master of Science in Computer Science degree program (attached). The proposed degree is a coursework-only program that is intended to address the demand for "professional post-graduate credentialing of computer scientist." The proposed degree program would provide an alternative to the M.S. degree that requires either a research paper or a computer science project.

The graduation requirements of the proposed M.C.S. degree include completion of 39 credit hours of lecture and laboratory course work, at least 20 credits of which must be in graduate level computer science courses. The program is intended to provide maximum flexibility in the program requirements. There will be no set of core courses required of all students. The courses required of each student will be selected on the basis of the particular needs of that student. Courses will be offered on the campus and on the Internet. The long term plans of the department are to offer a sufficient number of courses on-line to allow a student to complete the entire program off-campus.

It is expected that most students in the program will already be employed. Other potential students may have begun their graduate work in the existing M.S. program but lost interest in doing either a thesis or substantial project.

The introduction of the proposed Computer Science degree is projected to increase graduate enrollment by 10 to 20 students. The major enrollment impact of the proposed degree on existing CSU programs will be on the non-thesis option of the M.S. in Computer Science. It is anticipated that a number of students who would otherwise pursue that option will enroll in the "course work only" Computer Science degree.

**II. STAFF ANALYSIS**

In reviewing a concept paper, Commission staff consider such matters as (1) role and mission, (2) program duplication, (3) bona fide student demand, (4) demand for graduates in masters' degree programs, and (5) institutional resources.

**ROLE AND MISSION:** A graduate degree in computer science appears appropriate for a research university like Colorado State University.

**DUPLICATION:** The proposed degree program raises some questions related to duplication. Colorado has seven approved master degree programs in Computer Science. Five public universities offer a masters' degree in Computer Science, one of which is Colorado State University.

- a) Would a second masters' degree in Computer Science offered by CSU create unnecessary duplication? With the addition of the proposed option, CSU would offer three "plans" in a Computer Science Masters' degree:
  - a. Plan A – thesis
  - b. Plan B – project
  - c. Plan C – course work only

CSU's existing M.S. in Computer Science offers Plan A & B—a thesis and a non-thesis option. Does the packaging of a curriculum as course work only justify a separate degree authorization?

- b) This is the first of several Plan C degree programs that CSU indicated that it intends to ask separate degree approval due to a "course-only" design. In response to a CCHE question whether this proposal could be offered as an option under CSU's existing Computer Science degree authority, the Computer Science department replied that CSU's graduate school policy prohibits offering course-only options as a Master of Science degree. If the goals and the quality of the program are the same, can this request more appropriately be handled as an internal CSU decision – examination of its current policy restricting course only masters' degrees -- rather than a Commission decision?

**QUALITY:** Arizona State University and North Carolina State University offer course-only MCS degrees. In contrast to the CSU proposal, the two MCS degree programs do specify required courses or areas of study. The absence of any required courses in the program raises the question as to how much this is a student-designed program. There will be wide latitude in the courses that can be taken to complete the degree, and no comprehensive exam, capstone experience, or other method of drawing together the work done in the program. This would appear to present particular challenges as far as program integrity and the articulation and assessment of learning outcomes.

**CAPACITY TO OFFER THE DEGREE:** Because a concept paper only contains a broad overview of the basic curriculum design and rationale, it does not delineate the resources needed to implement and sustain the program. However, as part of the collaborative planning that occurs at the concept phase, it is appropriate to identify the broad resource-related issues. The first issue concerns how CSU will allocate resources to develop the on-line courses. The second resource issue concerns the physical facility. CSU has indicated that its computer science facility is over-enrolled. Why is the institution interested in

increasing enrollment in this field of study if it currently lacks capacity to serve the graduate students currently enrolled? CSU believes that the addition of this degree program will not require additional costs or resources, supporting the perception that Computer Science -- Plan C is not a separate degree program, but a variation of the existing masters' degree in Computer Science.

The Commission staff consulted with CSU System Academic Vice-President, and institution representatives to discuss the above issues.

### **III. ISSUES TO BE ADDRESSED IN THE FULL PROPOSAL**

After reviewing this concept paper, CCHE staff believes that the concept paper presents a request to add the Master of Computer Science (MCS) degree title to its existing master's entitlement in Computer Science. This type of request does not necessitate the full CCHE program approval process. To gain approval, the governing board would submit a request to add the degree title accompanied by the program curriculum, a description of the distinction between the new degree and the existing options in the program, and a plan for the assessment of student learning outcomes and evaluation of program quality. Following its policy, CCHE staff would determine if this is a distinction without a difference in academic rigor and outcome. The request would be presented to the Commission as an information item.