



# COLORADO

## Colorado Commission on Higher Education

Department of Higher Education

### CCHE AGENDA

February 7, 2020

Colorado Department of Higher Education  
1600 Broadway, 23rd Floor,  
College Invest Board Room  
Denver, Colorado

COMMISSIONER & ADVISOR WORK  
SESSION 11:30am – 12:30am

BUSINESS MEETING  
1:00pm – 4:30pm

**CALL-IN NUMBER: 1-877-820-7831**  
**PARTICIPANT CODE: 128479#**

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DR. ANGIE PACCIONE, EXECUTIVE DIRECTOR



## Colorado Commission on Higher Education

February 7, 2020

### Colorado Department of Higher Education

1600 Broadway, 23rd. Floor. College Invest Conference Room  
Denver, Colorado

11:30am -1:00pm

### COMMISSIONER & ADVISOR WORK SESSION *(working lunch)*

TOPIC:

Financial Aid – *Emily Burns*

Commission Procedures – *Chairman McGimpsey and Executive Director Paccione*

1:00 – 4:00pm

### BUSINESS MEETING

#### I. Opening Business

- A. Attendance
- B. Approval of the Minutes for the December 5, 2019 Commission Meeting
- C. Reports
  - i. Chair
  - ii. Vice-Chair
  - iii. Commissioners
  - iv. Commission Standing Committees
  - v. Advisors
- D. Executive Director Report
- E. Public Comment

#### II. Consent Items

- A. ~~Recommended Grants for 2019-20 OER Grant Program – *Spencer Ellis*~~  
*(moved to Action Items)*
- B. Degree Authorization Act – Colorado College – Recommendation for the Renewal of Authorization – *Heather DeLange*
- C. Degree Authorization Act – Ashford University – Recommendation for the Renewal of Authorization as a Place of Business – *Heather DeLange*
- D. Recommendation for Approval of Proposed Revisions to CCHE Policy Section I, Part T: Student Complaint Policy – *Heather DeLange*

#### III. Action Items

- A. Recommended Grants for 2019-20 OER Grant Program– *Spencer Ellis*



**IV. Discussion Items**

- A. Proposed Bachelor of Science degree in Cannabis Biology and Chemistry at Colorado State University-Pueblo– *Dr. Chris Rasmussen*

**V. Commission Initiatives**

- A. Second Chance Scholarship Program – *Sarah Pak*  
B. Funding Allocation Formula Update – *Jason Schrock, Emily Burns and Emma Fedorchuk*  
C. Legislative Update – *Chloe Mugg*  
D. Ad-Hoc Committee on Cost Containment and Affordability–  
*Dr. Ben Boggs, Katie Zaback and Committee Chairs*

**VI. Written Reports**

- Best in Class: Five Principles of Effective Educator Preparation –  
*Dr. Brittany Lane*





**Minutes of the Colorado Commission on Higher Education (CCHE) Meeting  
At Colorado Department of Higher Education, 1600 Broadway, Suite 2300  
Dec. 5, 2019**

**BUSINESS MEETING**

Chair Tom McGimpsey called the business meeting to order at 1:05 p.m.

**I. Opening Business**

**A. Attendance**

Chair Tom McGimpsey, Commissioners Mary Beth Buescher, Cassie Gannett, Charley Olena, Brittany Stich, Eric Tucker, Steven Trujillo (by phone), and Executive Director Paccione were all present.

CCHE Advisory Committee members attending: Rep. Kathy Kipp, Sen. Paul Lundeen, Rep. Julie McCluskie, Sen. Tammy Story, Wayne Artis, Mark Cavanaugh, Brad Baca (by phone), Christina Powell (by phone), Misti Ruthven

**B. Minutes**

Commissioner Tucker moved to approve the minutes for the Oct. 24, 2019 Commission Meeting. The motion was seconded by Commissioner Gannett and passed unanimously.

**C. Chair, Vice-Chair, Commissioners and Advisors Reports**

Commissioner Gannett reported that the Governor visited Harrison High School in Colorado Springs, which is the district where she works. It was about the partnership between PPCC and Harrison School District 2 to offer free associate degrees to students. Students stood up and told about the impact that this partnership will have on their lives, and she said it was very moving. She believes the program aligns with the master plan and the work of the Commission.

Commissioner Tucker reported on the November 15 meetings of the Fiscal Audit Committee. They discussed the funding formula and a plan to have it represent about 10%. They also discussed the capital funding criteria. The committee is reaching out to universities to get better input toward making that model correct.



Commissioner Gannett reported that the Student Success & Academic Affairs Committee met this morning. They had a great discussion about House Bill 20-B that will award college credit for work-related experience. They also discussed several topics that will be addressed later in this meeting.

Advisor Artis reiterated Commissioner Gannett's comments about the Governor's visit to Colorado Springs. He said it was an inspiring event that could be a significant change to the way the Commission conducts business and serves students.

Advisor Ruthven thanked Dr. Paccione and Chancellor Garcia for their commitment to present at the State Board of Education meeting in January. Ms. Ruthven reported that CDE received funding from the Joint Budget Committee last year to do a blanket effort among K-12 higher education, workforce centers and adult basic education around career advising. This will happen with a goal of reaching 5,000 career advisors and counselors across the state in the next six months.

Representative Kipp reported on two bills she is sponsoring this year regarding education training and personal financial literacy standards for high school students.

Senator Lundeen thanked Executive Director Paccione and Chair McGimpsey for their work and the work of the commission in the education space in Colorado.

Senator Story reported that she continues to work on an educator evaluation bill for K-12.

#### **D. Executive Director Report**

Executive Director Paccione reported that the Department is very busy as it ramps up to the beginning of the legislative session. The Affordability Roadmap launch by the Governor was a great success with a large turnout, including many of the commissioners. Dr. Paccione thanked Commissioner Hughes and Olena for chairing the ad hoc committee on college costs. She reported on her participation in the Governor's Listening Tour in Grand Junction and recognized Advisor Ruthven's partnership at the education table. Former Secretary of Education, John King, Jr. will be in Colorado on February 3 to participate in a community conversation about educational equity across the state. All commissioners are invited to participate in these events. The Master Plan dashboard has been updated and is available on the Department's Master Plan website. Dr. Paccione reported that the Sexual Misconduct Advisory Committee has been appointed and will begin work on recommendations to the general assembly and IHEs on proposed rule changes on federal Title IX. She reported that she visited Community College of Aurora to close out the TIE grant and that they reported remarkable results in closing the equity gap. The My Colorado Journey platform will be showcased on December 10 along with the Talent Pipeline report release. The legislature passed a Second Chance Scholarship bill last session, which makes \$250,000 in scholarships available to justice-involved youth.

#### **E. Public Comment**



Four members of the Young Invincibles group and students spoke to the commission about their individual experiences around college affordability and mental health.

## II. Consent Items

- A. Recommend Approval of Remaining Program Plans for Fiscal Year 2020-21 Capital Requests - *Lauren Gilliland*
- B. Recommend Approval of Secondary Science at Colorado Mountain College – *Dr. Brittany Lane*
- C. Recommend Approval of Two-Year Cash Funded Capital Program List Amendment - Colorado Mesa University - *Lauren Gilliland*
- D. Recommend Approval of 2020 Commission Meeting Dates – *Katrina Smith*
- E. Recommend Approval of Bachelor of Applied Science Degree Program in Advanced Paramedic Practice at Arapahoe, Pikes Peak, and Pueblo Community Colleges – *Christina Carrillo*
- F. Recommend Approval of Bachelor of Applied Science Degree Program in Secure Software Development at Pueblo Community College – *Dr. Chris Rasmussen*

Commissioner Buescher moved to approve consent items A through F. The motion was seconded by Commissioner Tucker and passed unanimously

## III. Commission Reports

- A. Annual Resident/Non-Resident report – *Michael Vente, CSU, CU*

Michael Vente (Senior Director of Research) provided an overview of this year’s annual report on resident and non-resident student populations at Colorado public institutions of higher education. He explained some of the methodology used for the report and summarized thresholds for non-resident student enrollment that Colorado public institutions of higher education must adhere to as outlined in statute. He said that all institutions currently meet the minimum thresholds for each cohort outlined in statute.

In addition to the annual report, Mr. Vente said that statute requires the University of Colorado and Colorado State University to report to the Colorado Commission on Higher Education information demonstrating that qualified in-state students are not displaced or denied admissions and that any increase in the enrollment of foreign students at a specific campus of the University of Colorado System or at Colorado State University is a result of increased capacity at the campuses. Kevin MacLennan (Assistant Vice Chancellor, University of Colorado) and Leslie Taylor (Vice President for Enrollment and Access, Colorado State University) presented information from the University of Colorado and Colorado State University and their work to ensure that qualified in-state students are not displaced or denied admission due to increase out-of-state state enrollment.

## IV. Action Items

- A. Degree Authorization Act: Recommendation for Renewal of Probationary Authorization for CollegeAmerica Fort Collins and CollegeAmerica Colorado Springs – *Heather DeLange*



Heather DeLange presented an agenda item that recommended one final renewal of probationary authorization the Commission with the current state of authorizations and approvals for CollegeAmerica. Ms. DeLange explained the staff recommendation of renewing probationary authorization for the remainder of the ACCSC's maximum timeline to achieve compliance. She said that could be the best way to ensure students are able to complete their program or have the best option to transfer if CollegeAmerica does not achieve and demonstrate compliance by the deadline of Sept. 7, 2020.

After discussion, the Commission amended the staff recommendation to:  
Renew probationary authorization for CollegeAmerica Colorado Springs and CollegeAmerica Fort Collins until September 2020 with the following conditions:

1. CollegeAmerica must immediately send a new letter outlining the Probation Authorization to student immediately regarding the probationary authorization and conditions along with a link to the accreditor's letter of October 29, 2019. The letter shall be written by the Department staff or by CA but must have the Department approval prior to release and must be alerted when it is released to students.
2. CollegeAmerica must provide the Department with student contact information for all students enrolled in the baccalaureate programs at the CollegeAmerica campuses.
3. If CollegeAmerica begins enrolling at the Colorado campuses again, the Department is to receive prior written notice (60 days) in advance of announcing the end of the enrollment cessation.
4. CollegeAmerica must provide the Department staff with the teach-out plan once it is submitted to ACCSC and the plan will be shared with students.
5. Department will notify the Private Occupational School Board of the Commission's December 5, 2019 action.

The Commission voted on the amended recommendation and the item passed unanimously.

~~**B. Revision of CCHE Policy I, Part V: Creation of Academic Programs—Process for Review and Approval of Select Baccalaureate Degree Programs at Colorado Community College System Institutions and Local District Colleges—Dr. Chris Rasmussen**~~

*(Item pulled from the agenda in advance of the meeting)*

## **V. Discussion Items**

A. Proposed Revisions to CCHE Policy I, Part T: Student Complaint Policy –  
*Heather DeLange*



Heather DeLange presented proposed additions to the CCHE Policy I, Part T: Student Complaint Policy, which would provide Coloradans who are enrolled in out-of-state institutions an avenue to file a student complaint. The current policy only speaks to complaints from students enrolled in Colorado-based or authorized institutions. The amended language would provide more opportunity for students to find resolution to institution complaints.

B. Degree Authorization Act: American Management and Technology School – Voluntary Relinquishment of Provisional Authorization – *Heather DeLange*

Heather DeLange provided the Commission with an update regarding the American Management and Technology School. AMTS provided Department staff with notice of the desire to relinquish authorization. No students had yet enrolled, so no student was due any kind of refund or teach-out.

There is nothing further required of the institution nor the Commission.

C. Degree Authorization Act: Recommendation for Provisional Authorization of Calvary University – *Heather DeLange*

Heather DeLange presented a discussion item recommending provisional authorization for Calvary University, an existing, regionally accredited institution. Dr. Bill George and Cory Trowbridge from Calvary attended the meeting and provided the Commission with an overview of the plan for Calvary University in Colorado and how the university can contribute to Colorado's master plan.

Ms. DeLange included the recommendation to move the discussion item to an action item. The Commission accepted the recommendation and the motion to award provisional authorization to Calvary University passed unanimously.

D. Process to Revise CCHE Policy I, Part E: Developmental Education – *Dr. Chris Rasmussen*

Chris Rasmussen (Director of Academic Affairs) summarized efforts made to date and near-future plans to implement House Bill 19-1206 (Concerning Removing Equity Gaps in Higher Education by Ensuring More Students Have Access to Supplemental Academic Instruction). The act amended various parts of statute concerning the delivery of basic skills/developmental education courses by state-supported institutions of higher education and will require substantial revisions to CCHE policies on Developmental Education and on Supplemental Academic Instruction. Policy changes will address student placement into developmental education, delivery of development courses and related support services, and institutional reporting and accountability. Stakeholder consultations have included the Academic Council, General Education Council, development education faculty, registrars, institutional researchers, and ESL instructors and subject-matter



experts. The staff anticipates bringing drafts of revised policies to the Commission for discussion in February.

## **VI. Commission Initiatives**

### **A. Funding Allocation Formula Update – *Jason Schrock, Emily Burns, and Emma Fedorchuk***

CDHE provided an update on the revisions to the funding formula. The Department submitted a report on the outcomes of the formula review process, the challenges with the current-law funding formula established under HB 14-1319, and the new proposed model structure to the legislature on November 12 as required by SB 19-095. Commissioners also received a copy of the report.

Staff also provided an update on the process of revising the formula to ensure it remains viable as it allocates an increasing amount of state funding in future years. Staff continues to meet with stakeholders throughout the development process and requested feedback from the Commission. Several commissioners and advisors offered their thoughts on how to move forward with a balance of accountability, transparency, and stability. Goals voiced by individual commissioners and advisors included concerns about providing adequate funding for smaller institutions and ensuring that the formula does not perpetuate historic funding inequities. Commissioners also raised the issue of how a formula would operate in a cut scenario.



**TOPIC:** DEGREE AUTHORIZATION ACT – COLORADO COLLEGE -  
RECOMMENDATION OF APPROVAL FOR RENEWAL OF  
AUTHORIZATION

**PREPARED BY:** HEATHER DELANGE, OFFICE OF PRIVATE POSTSECONDARY  
EDUCATION

**I. SUMMARY**

This consent item recommends the renewal of Full Authorization for Colorado College pursuant to the Degree Authorization Act (§23-2-101 C.R.S.).

**II. BACKGROUND**

The Colorado Commission on Higher Education (CCHE) has statutory responsibility for administration of Title 23, Article 2 of the Colorado Revised Statutes, commonly referred to as the Degree Authorization Act (DAA). The Act sets out the terms by which the Commission may authorize accredited private colleges and universities, out-of-state public colleges and universities, and seminaries and bible colleges to operate in Colorado.

The DAA outlines the Department’s jurisdiction over private education programs available to the residents of the state of Colorado. The DAA establishes standards to (1) prevent misrepresentation, fraud, and collusion in offering educational programs to the public and (2) protect, preserve, foster, and encourage the educational programs offered by private educational institutions, which meet generally recognized criteria of quality and effectiveness as determined through voluntary accreditation.

Pursuant to statute and policy, all authorized institutions under the DAA must renew authorization periodically. The renewal period varies by the type of authorization that the institution holds from the CCHE. A private college or university that has full authorization “shall apply for renewal of authorization in accordance with the schedule for institutional reaccreditation by its accrediting body or every three years, whichever is longer.”

Full Authorization is awarded to institutions which are institutionally accredited by a regional or national accrediting body that is recognized by the U.S. Department of Education and has had a successful on-site review of its Colorado location(s). These institutions are subject to the deceptive trade practice provisions in §23-2-104, C.R.S.

Department staff have reviewed the site visit team’s report and the final determination letter from the Higher Learning Commission. In alignment with the Colorado Commission on Higher Education’s Master Plan, the evaluation report included statistics about the student population. While enrollment has remained stable since the last accreditation visit, changes have occurred in

diversity and selectivity. Over the past decade the percent of students of Colorado has increased from 14.6% to 24.3%.

### **III. STAFF ANALYSIS**

Colorado College is a private, not-for-profit college located in Colorado Springs, Colorado and offers several undergraduate programs and at the graduate degree level, a Master of Arts in Teaching both for prospective and experienced teachers. Colorado College hosted its accreditation site visit in 2018. The Institutional Actions Council of the Higher Learning Commission voted to continue the University's accreditation resulting in the next reaffirmation of accreditation due in 2027-2028. The accreditation is renewed for a period of ten years.

With the reaffirmation of accreditation by the HLC, Colorado College applied to the Department in January 2020 for renewal of Full Authorization in accordance with the schedule for reaccreditation by its accrediting body.

Colorado College continues to meet and comply with all authorization requirements for authorization to operate in Colorado.

### **IV. STAFF RECOMMENDATION**

**Staff recommends the Commission approve the renewal of Full Authorization for Colorado College.**

### **STATUTORY AUTHORITY**

C.R.S §23-2-103.3(5) A private college or university that has authorization from the commission pursuant to this section and maintains its accreditation shall apply to the department for reauthorization in accordance with the schedule for reaccreditation by its accrediting body or every three years, whichever is longer. A seminary or religious training institution shall apply for reauthorization every three years. A private college or university or seminary or religious training institution that seeks reauthorization shall submit an application in accordance with the procedures and policies adopted by the commission and shall pay the reauthorization fee established by the commission pursuant to section 23-2-104.5.

**TOPIC:** DEGREE AUTHORIZATION ACT – ASHFORD UNIVERSITY –  
RECOMMENDATION OF APPROVAL FOR THE RENEWAL OF  
AUTHORIZATION AS A PLACE OF BUSINESS

**PREPARED BY:** HEATHER DELANGE, OFFICE OF PRIVATE POSTSECONDARY  
EDUCATION

## **I. SUMMARY**

This consent item recommends the renewal of authorization as a Place of Business (with no instruction) for Ashford University under the Degree Authorization Act.

## **II. BACKGROUND**

The Colorado Commission on Higher Education (CCHE) has statutory responsibility for administration of Title 23, Article 2 of the Colorado Revised Statutes, commonly referred to as the Degree Authorization Act (DAA). The Act sets out the terms by which the Commission may authorize accredited private colleges and universities, out-of-state public colleges and universities, and seminaries and bible colleges to operate in Colorado.

Pursuant to statute and policy, all authorized institutions under the DAA must renew authorization periodically. The renewal period varies by the type of authorization the institution holds from the CCHE. A private college or university that has authorization as a Place of Business by the CCHE shall annually renew its authorization.

The Place of Business (with no instruction) authorization is defined as an accredited institution having a place of business within Colorado but cannot offer instruction in the state. These institutions are subject to the deceptive trade practice provisions in §23-2-104, C.R.S.

## **III. STAFF ANALYSIS**

Ashford University is a for-profit, California-based institution with regional accreditation through the Western Association of Schools and Colleges (WASC), Senior College and University Commission as well as several programmatic accreditation awards. The University's instruction is provided entirely via distance education and asynchronously offering a multitude of Bachelor- and Master-level degree programs. The Statement of Accreditation lists two accredited locations:

- Ashford University, Clinton Center – Clinton, Iowa
- Ashford University, Main Campus – San Diego, California

Ashford University operates an administrative office in Denver that houses staff who serve in student support roles. Under Ashford University's shared services agreement with Zovio (formerly Bridgepoint Education, the corporate parent), staff in Enrollment and Student Services support Ashford's prospective and current online students and continue to operate from the

Denver site. There are currently 153 Zovio active full-time employees at the Colorado location. The onsite Zovio employees support Ashford University by providing services such as student inquiry and enrollment services, student support services (e.g., student advising and academic advising) financial services, human resources, business technology, and learning and development (e.g. instructional design). In addition to the onsite location, there are 28 active full-time remote Colorado-based employees: eight (8) Zovio and 20 Ashford University employees.

“Operational goals at the Denver location center on operating efficiently and maintaining a continued commitment to students, employees and the university. Student support services that help students achieve their educational goals will continue to be provided from the Denver site under the Shared Services agreement between Ashford University and Zovio. The leadership and employees at the site look forward to continued engagement as active members of the Denver community.”

Ashford continues to meet the requirements of the Place of Business (with no instruction) authorization.

#### **IV. STAFF RECOMMENDATIONS**

**Staff recommends the Commission approve the renewal of authorization for Ashford University as a Place of Business (with no instruction).**

#### **V. STATUTORY AUTHORITY**

C.R.S §23-2-103.3(5) A private college or university that has authorization from the commission pursuant to this section and maintains its accreditation shall apply to the department for reauthorization in accordance with the schedule for reaccreditation by its accrediting body or every three years, whichever is longer. A seminary or religious training institution shall apply for reauthorization every three years. A private college or university or seminary or religious training institution that seeks reauthorization shall submit an application in accordance with the procedures and policies adopted by the commission and shall pay the reauthorization fee established by the commission pursuant to section 23-2-104.5.

**TOPIC:** RECOMMENDATION FOR APPROVAL OF PROPOSED REVISIONS TO CCHE POLICY, SECTION I PART T: STUDENT COMPLAINT POLICY

**PREPARED BY:** HEATHER DELANGE, OFFICE OF PRIVATE POSTSECONDARY EDUCATION

**I. SUMMARY**

This consent item outlines proposed revisions to Commission Policy I, T: Student Complaint Policy. The current language does not outline the process for a Colorado-based student to file a complaint with the Department if the student is enrolled in an out-of-state institution in an online program.

**II. BACKGROUND**

As part of the triad (US Department of Education, Accreditors and State Agencies) it is the responsibility of state agencies to provide a pathway for students to file grievances if the student cannot find resolution at the institution. Since 2010, the U.S. Department of Education has been working on the State Authorization Rule and defining how states should provide student protection when necessary. The 2016 state authorization regulations published by the U.S. Department of Education in the Federal Register stated that if the state does not have a complaint process that applies to an out-of-state institution providing distance education to students in that state, the institution does not comply with the requirement.

Current Commission policy speaks to a student complaint process for any student attending a Colorado-based institution. The policy is promulgated from CRS §23-2-104, which states the Commission shall specify procedures by which a student or former student of a private college or university or seminary or religious training institution may file a complaint with the department, concerning the institution in which the student is or was enrolled. Pursuant to the statute, the definition of a private college or university/seminary or religious training institution is a postsecondary educational institution doing business or maintaining a place of business in the state of Colorado. Based on this definition, the student complaint process has only applied to students enrolled at Colorado institutions but does not address the issues of those Coloradans who have an issue while attending a non-Colorado institution.

The 2016 State Authorization Rule did not go into effect until May 26, 2019, after the Department lost a challenge to its delay of the rule in federal court. This effective date was confirmed by the Department in its July 22, 2019 announcement.

Then, on Nov. 1, 2019, the federal government released new requirements as part of their recent negotiated rule-making process. The 2019 State Authorization Rule no longer requires states to have a process for its residents attending out-of-state institutions; however, it is important for the

Department to ensure students have a pathway or guidance at the state level for student grievances, regardless of whether it is required at the federal level or not.

### **III. STAFF ANALYSIS**

The proposed language discussed in this agenda item provides guidance to students who reside in Colorado in order to file a complaint against an out-of-state institution.

Attachment A shows the proposed addition to the student complaint policy.

### **IV. STAFF RECOMMENDATIONS**

**Staff recommends the Commission approve the proposed additional language to CCHE policy Section I, Part T.**

### **STATUTORY AUTHORITY**

§23-2-103.1, C.R.S., Administration of article-complaints-injunctive proceedings

(2) (a) The commission shall specify procedures by which a student or former student of a private college or university or seminary or religious training institution may file a complaint with the department concerning the institution in which the student is or was enrolled. If a former student files a complaint, he or she must do so within two years after discontinuing enrollment at the institution. The department may investigate complaints based on a claim of a deceptive trade practice as described in subsection (4) of this section. The department does not have jurisdiction to consider complaints that infringe on the academic freedom or religious freedom of, or question the curriculum content of, a private college or university or seminary or religious training institution; except that the department has jurisdiction to consider a complaint that pertains to the general education core course requirements of a private college or university or seminary or religious training institution, or to any of the specific core courses included in said requirements, if the private college or university or seminary or religious training institution chooses to seek transferability of its general education core courses pursuant to section 23-1-125 (5).

### **ATTACHMENTS**

Attachment A: CCHE Policy Section I, Part T with proposed changes

# Agenda Item II, D

## ATTACHMENT A

### SECTION I

#### PART T STUDENT COMPLAINT POLICY

##### **1.0 Introduction**

The role of the Colorado Commission on Higher Education, and the Colorado Department of Higher Education acting as its staff, is to act as an ombudsman and advise students on how to follow the policies and procedures for resolving complaints at the institution where they are or were enrolled. In almost every instance, the institution where the student is or was enrolled will determine appropriate action for both the student and the institution. Such decisions by the institution are binding and most often are not subject to further appeal to the Department. Institutions have sole authority over complaints about grades and actions related to student conduct policies. This policy applies to students at public and private institutions of higher education. This policy mandates that each public and private institution define and implement complaint and appeals processes to investigate student complaints and appeals in a fair and expeditious manner. For both public and private institutions that elect to participate in the State Authorization Reciprocity Agreement (SARA), the Department has authority to ensure that participating public and private institutions follow policies and standards for online students outside of Colorado, outlined below in Section 5.00.

##### **2.00 Statutory Authority**

Pursuant to Article 34, Title 24, C.R.S., complaints of discrimination based on race, color, religion, creed, national origin, ancestry, sex, physical or mental disability, sexual orientation (incl. transgender status), marital status, and retaliation for engaging in protected activity should be filed with the Colorado Department of Regulatory Agencies (DORA), Division of Civil Rights at [www.dora.state.co.us/civil-rights](http://www.dora.state.co.us/civil-rights). Also, in cases where the student filing the complaint is also an employee of the institution of higher education and the complaint involves the employer-employee relationship, this may trigger state or federal Whistleblower legislation and will be referred to the Colorado Attorney General's Office and any appropriate federal agency. Similarly, if the student complaint involves disclosures of fraud; violations of laws, regulations, or ethical standards; or misuse of funds in the context of a college- or university- administered federal grant, this may also trigger federal Whistleblower legislation and the Department may report this violation to the grantor.

##### **2.01 Public Institutions of Higher Education**

Several sections in statute outline how the public higher education system should be designed to function for the benefit of students who are residents of Colorado. These statutory requirements include (but are not limited to) ensuring that the design of degree programs offer the maximum range of opportunities and

## **Agenda Item II, D**

### **ATTACHMENT A**

assistance to students to complete their courses of study and obtain their degrees in a reasonable amount of time [§23-1-108(13) C.R.S.]; ensuring fair policies for students who transfer coursework between degree programs or between public institutions [§23-5-122 C.R.S.]; and ensuring the requirements in the Student Bill of Rights [§23-1-125 C.R.S.].

Colorado public institutions that choose to participate in SARA and are offering online education to residents of other states are held accountable to SARA requirements and those complaints are subject to investigation by the Department [§23-2-103.1(4)]. In the case of SARA related student complaints, final resolution rests with the state for purposes of adjudication and enforcement. The requirements of SARA are listed in section 5.00.

#### **2.02 Private Institutions of Higher Education**

In the case of non-public institutions, the Department is authorized to investigate complaints based on claims of deceptive trade practice as described in §23-2-104(4) C.R.S. and listed in Section 4.05 below. The Department shall not have authority to consider complaints that infringe on the academic freedom, religious freedom, or question the curriculum content of a private college or university, religious training institutions, or seminary, except where the state has that authority, such as with educator preparation programs (§23-1-121, C.R.S.) and voluntary participation in gtPathways [§23-1-125(5), C.R.S.].

Private institutions that choose to participate in SARA and whose main campus or accredited, degree-granting authority is located in Colorado and offer online education to residents of other states are held accountable to SARA requirements and those complaints are subject to investigation by the Department [§23-2-103.1(4)]. In the case of SARA related student complaints, final resolution rests with the state for purposes of adjudication and enforcement. The requirements of SARA are listed in section 5.00.

#### [3.00 Out-of-State Institutions of Higher education](#)

[3.01 Colorado Revised Statutes contains language for student grievances at those colleges and universities authorized to operate in Colorado. For Colorado residents who are attending an out-of-state institution and are enrolled in an online course or program, there is no specific language. If the online student has an issue with their institution, and the institution is neither located in Colorado nor participates in SARA \(<https://www.nc-sara.org/directory>\), the student is encouraged to first work with the institution and utilize the formal grievance/complaint process found in the institution's student handbook.](#)

## **Agenda Item II, D**

### **ATTACHMENT A**

- 3.02 [If the issue is not addressed after filing a formal complaint with the institution, the student should locate the institution’s home state. The home state’s higher education agency should be listed in the school’s catalog. If it is not, students may use the State Authorization Guide to find the institution’s home state and the home state’s higher education agency’s contact information and reach out to that agency to attempt to resolve the complaint](#)
- 3.03 [The student may file a complaint with the Colorado Department of Higher Education. Out-of-state, online institutions are not listed on the Colorado Department of Higher Education website so students are encouraged to submit a comment to the “send us a comment” section of the website. Please include the name of the student, institution name, and the issue or complaint. Colorado Department of Higher Education staff will work with the student and the appropriate higher education agency to seek resolution of the complaint.](#)
- 3.04 [The above is a \*voluntary\* process that out-of-state, online schools may opt in to in order to meet the Federal Department of Education’s 2016 State Authorization Regulation student complaint process requirement. Each out-of-state, online school must notify the Colorado Department of Higher Education of their intention to opt in to this process on behalf of its students. The Colorado Department of Higher Education will receive student complaints for each such institution, retroactively from March 15, 2019, forward, until such time as the Federal Department of Higher Education’s 2016 State Authorization Regulation regarding student complaints is amended or withdrawn.](#)

### **3.00 Goals and Definitions**

- 3.01** The goal of the Commission’s Student Complaint Policy for students in public institutions of higher education is to help students understand their rights under Colorado law described in section 2.01 and to advise students on how to follow their institution’s policies and procedures.
- 3.02** The goal of the Commission’s Student Complaint Policy for students in private institutions of higher education is to help students understand their rights under Colorado law described in section 2.02, to advise students on how to follow their institution’s policies and procedures, and to uphold statutory goals that prohibit deceptive trade practice.
- 3.03** Terminology
- 3.03.01 The “Commission” means the Colorado Commission on Higher Education.

## **Agenda Item II, D**

### **ATTACHMENT A**

- 3.03.02 The “Department” means the Colorado Department of Higher Education, which acts as the staff for the Commission.
- 3.03.03 “Ombudsman” means a person who advises and attempts to help resolve complaints and problems, as between students and a university.
- 3.03.04 The “Institution” means the public, private non-profit, or private for-profit college or university where the student is or was enrolled.
- 3.03.05 A “student complaint” is a grievance filed in writing or online at an institution of higher education, according to the policies of the institution of higher education where the student is or was enrolled, or at the Colorado Department of Higher Education. A givable offense is any alleged action which violates one of the requirements in sections 2.01 and 2.02 of this policy. It should be noted that for complaints that do not involve one of the statutes described in sections 2.01 and 2.02, in almost every instance the institution where the student is enrolled will determine appropriate action for both the student and the institution. Such decisions by the institution are binding and most often are not subject to further appeal to the Commission.
- 3.03.06 A “whistleblower” is a person, usually an employee in a government agency or private enterprise, who makes a report to the public or to those in authority, of mismanagement, corruption, illegality, or some other wrongdoing.
- 3.03.07 State Authorization and Reciprocity Agreement (SARA) is an interstate agreement governing distance education laws for both public and private colleges and is administered through the Western Interstate Commission for Higher Education. For more information, see <http://www.wiche.edu/sara/>.

#### **4.00 Responsibilities Pertaining to Student Complaints**

##### **4.01 Responsibilities of the Student**

- 4.01.01 To follow the institution’s complaints and appeals procedures within the institution’s required timeframe first and exhaust all opportunities for resolution at the institution. In the case of private institutions, “If a former student files a complaint, he or she must do so within two years after discontinuing enrollment at the institution,” per 23-2-104(2)(a), C.R.S.

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- 4.01.02 After exhausting all opportunities for resolution at the institution, to file a written complaint with the Department online at <http://higher.colorado.gov/Academics/Complaints/default.html> or via US mail or e-mail and describes: (a) the basis for the complaint; (b) the institution's complaints and appeals process that was followed; and (c) the institution's final decision (including copies of documentation); and (d) the desired resolution.
- 4.01.03 To give the Department written permission to communicate with the institution regarding the complaint, as well as written permission to review any personally-identifiable student education records which may pertain to the subject of the complaint.
- 4.01.04 To be clear about what the complaint is and what resolution is sought.
- 4.01.05 To provide the Department with all requested documentation.
  
- 4.02** Responsibilities of the Department
  - 4.02.01 To advise students on how to follow the policies and procedures for resolving complaints at the institution where they are or were enrolled.
  - 4.02.02 To help students understand their rights under Colorado law.
  - 4.02.03 To modify state policies and request that institutions review, and if necessary, modify their policies to try and prevent student problems.
  - 4.02.04 To publicize its complaint policy and to promote the publication of all institutions' complaint and appeal policies.
  
- 4.03** Responsibilities of the Governing Board of a Public Institution of Higher Education
  - 4.03.01 To ensure that its institution(s) complies with state law and policy regarding appeals, including the intent for students to have a timely and fair hearing.
  - 4.03.02 To adopt student complaint and appeal procedures for its institution(s).
  
- 4.04** Responsibilities of the Public Institution of Higher Education
  - 4.04.01 To investigate student complaints in a timely and unbiased manner.

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4.04.02 To publish its complaint and appeal procedures in prominent student publications, including, but not limited to the course catalog, student handbook, and its website.

#### **4.05 Responsibilities of the Private Institution of Higher Education**

4.05.01 To investigate student complaints or appeals in a timely and unbiased manner.

4.05.02 To investigate student complaints filed with the Department that allege an institution violated one of the requirements set forth in section 2.02 of this policy. Pursuant to §23-2-104(4), C.R.S. it is deceptive trade practice for:

- a. An institution or agent to make or cause to be made any statement or representation, oral, written, or visual, in connection with the offering of educational services if the institution or agent knows or reasonably should have known the statement or representation to be materially false, substantially inaccurate or materially misleading;
- b. An institution or agent to represent falsely or to deceptively conceal, directly or by implication, through the use of a trade or business name the fact that an institution is a school;
- c. An institution or agent to adopt a name, trade name, or trademark that represents falsely, directly or by implication, the quality, scope, nature, size, or integrity of the institution or its educational services;
- d. An institution or agent to intentionally and materially represent falsely, directly or by implication, that student who successfully completes a course or program of instruction may transfer the credits earned to any institution of higher education;
- e. An institution or agent to intentionally and materially represent falsely, directly or by implication, in its advertising or promotional materials or in any other manner, the size, location, facilities, or equipment of the institution, the number or educational experience qualifications of its faculty, the extent or nature of any accreditation received from any accrediting agency or association;
- f. An institution or agent to provide prospective students with any testimonials, endorsements, or other information that may materially mislead or deceive prospective students or the public regarding current practices of the institution;
- g. An agent representing an out-of-state school to represent, directly or by implication, that the school is authorized by the state of Colorado

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or approved or accredited by an accrediting agency or body when the institution has not been authorized, approved or accredited; and

- h. An institution to designate or refer to its sales representatives by titles that imply the sales representatives have training in academic counseling or advising if they do not.

4.05.03 To investigate complaints violating the requirements set forth in section 5.00 of this policy, for the purposes of SARA.

4.05.04 To publish its complaint and appeal procedures, where to file a complaint with the Colorado Department of Higher Education, contact information for the institution's accrediting agency in prominent student publications, including, but not limited to the course catalog, student handbook, and on its website.

#### **5.00 State Authorization and Reciprocity Agreement (SARA) Requirements**

**5.01** Consumer protection under SARA means that the home state and any other necessary parties will investigate and resolve claims of any dishonest or fraudulent activity by any provider, including giving false or misleading information to a student. Consumer protection also includes investigating and resolving complaints that an institution is operating a course or program contrary to practices as set forth in the Interregional Guidelines for the Evaluation of Distance Education (C-RAC) guidelines in such a way that a student is harmed. Examples of issues that may arise include, but are not limited to:

5.01.01 Veracity of recruitment and marketing materials;

5.01.02 Accuracy of job placement data;

5.01.03 Accuracy of information about tuition, fees and financial aid;

5.01.04 Complete and correct admission requirements for courses and programs;

5.01.05 Accuracy of information about whether course work meets professional licensing requirements, in SARA Policies and Standards;

5.01.06 Operation of distance education programs consistent with practices expected by institutional and, if applicable, programmatic accreditors, and the C-RAC guidelines for distance education.

**5.02** Specifically, the C-RAC guidelines to which participating public and private institutions will be held accountable include:

5.02.01 Online learning is appropriate to the institution's mission and purposes.

5.02.02 The institution's plans for developing, sustaining, and, if appropriate, expanding online learning offerings are integrated into its regular planning and evaluation processes;

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- 5.02.03 Online learning is incorporated into the institution's systems of governance and academic oversight;
- 5.02.04 Curricula for the institution's online learning offerings are coherent, cohesive, and comparable in academic rigor to programs offered in traditional instructional formats;
- 5.02.05 The institution evaluates the effectiveness of its online learning offerings, including the extent to which the online learning goals are achieved, and uses the results of its evaluations to enhance the attainment of the goals;
- 5.02.06 Faculty responsible for delivering the online learning curricula and evaluating the students' success in achieving the online learning goals are appropriately qualified and effectively supported;
- 5.02.07 The institution provides effective student and academic services to support students enrolled in online learning offerings;
- 5.02.08 The institution provides sufficient resources to support and, if appropriate, expand its online learning offerings; and
- 5.02.09 The institution assures the integrity of its online offerings.

HISTORY: CCHE Agenda Item II, A – November 1, 2012; CCHE Agenda Item III, A – July 25, 2013; CCHE Agenda Item V, C – March 14, 2014; CCHE Agenda Item III, H—April 11, 2014

**TOPIC:** RECOMMENDED GRANTS FOR 2019-20 OER GRANT PROGRAM

**PREPARED BY:** SPENCER ELLIS, DIRECTOR OF EDUCATIONAL INNOVATION

## **I. SUMMARY**

This consent item recommends approval for grants identified through the comprehensive review process conducted by the Open Educational Resources (OER) Council and Department staff for the 2019-20 award year of the OER Grant Program.

## **II. BACKGROUND**

At the October 2019 CCHE meeting, the OER Council presented a comprehensive overview of the OER initiative. The OER grant program is now in its second year of operations. Department staff, in conjunction with the OER Council, outlined the structure of the Request for Proposals (RFP) and timeline for the second grant cycle and presented it to the Commission. Since then, the Department has collected the next cohort of applications, participated in a comprehensive review period, communicated required revisions to shortlisted candidates, and refined a list of recommendations for CCHE consent at this meeting, the first of 2020.

The RFP was structured to encourage proposals ranging from professional exploration and development (with a focus on OER) to creation, adaptation, and/or adoption incentives of OER by faculty, staff or administrators in institutions of higher education. For this grant cycle, there are again two levels of grants, primarily organized by associated requested dollar amount. The two grant types are as follows:

- Those from public institutions of higher education to support and expand creation, adoption, adaptation and promotion of the use of **OER across the institution and/or among multiple institutions**; these grants range from **\$10,000-\$100,000**.
- Those from faculty and/or staff of public institutions of higher education, individually or in small groups, to support the creation, adoption, adaptation and promotion of **OER for specific courses, disciplines or programs**; these grants range from **\$250-\$9,999**.

### **Applicant Pool**

At the close of the RFP in the fall of 2019, there were nearly 40 submissions for the grant, totaling over \$1.6 million in proposed projects. This represents about a 36% growth in application submissions over 2018, which signifies the elevated awareness and growth of this initiative throughout Colorado. This is important to Department staff and the OER Council because of the identified goal of 100% awareness of OER in Colorado.

Within the proposals for the second grant cycle, 24 were from institutions of higher education for institutional level grants, and 14 for small groups or individuals; this also included proposals from 26 different institutions, including 15 community colleges, both urban and rural. The OER

Council and staff completed a month-long review period in which a comprehensive review and evaluation of each proposal took place. As noted in the RFP, there is a standard expectation and requirement for OER Council members to recuse themselves from reviewing proposals associated with their home institutions and systems. In these cases, a replacement reviewer was appointed by the Department staff. The Department staff made pre-notifications of shortlisted proposals available to applicants in December 2019. This afforded institutions an opportunity for future planning with the understanding that final approval of their grant status would take place at the February 2020 CCHE meeting.

### **III. STAFF ANALYSIS**

As articulated both in several previously submitted agenda items to the Commission, one of the goals of the OER Grant Program is to encourage as much participation throughout the state as possible. This is because there is great potential for collective impact in a widescale approach to OER work. As a result, awards were granted to as many qualified proposals as possible with additional professional development funding once again provided to several institutions that were not selected for full grant funding in year two. This two-pronged approach to funding allows campuses to begin the work of selected proposals expediently while also providing further support for those not selected for full grant funds to attend the annual statewide OER Conference and/or pursue other related professional development opportunities. This will afford professional development trainings and further guidance on revisions to previous proposals from grant applicants to refine proposals for consideration in the third round of grant funding in 2020-21. In fact, one such applicant from the first OER grant cycle did indeed pursue this path and resubmitted their proposal this year; they were successfully funded for their project. See attachment B for request for proposals (RFP) for this grant cycle.

By awarding a high number of grants to institutions from across the state, as well as additional support for several to attend the statewide OER conference and/or other OER focused training in 2020, the next round of grant funding should help to continue to build momentum toward the goals of student savings and success through OER.

This year, the OER Council will award \$1 million worth of funding to campuses, educators, faculty and staff for their budding OER programs. The specific list of recommended projects to be funded can be found in Attachment A.

### **IV. STAFF RECOMMENDATIONS**

Staff recommend for the Commission to affirm these recommendations for awards to advance the work of the OER initiative in Colorado.

### **V. STATUTORY AUTHORITY**

Pursuant to [HB 18-1331](#), the Commission shall award grants through the grant program and shall take into account, but is not bound by, the recommendations of the council and staff in doing so.

**ATTACHMENT(S):**

Attachment A: Colorado OER Grant Program Recommended Award Recipients for OER Grant Program Year Two

Attachment B: Colorado Open Educational Resources (OER) Grant Request for Proposals (RFP) 2019-20



**Attachment A: Recommended Award Recipients for OER Grant Program Year Two**

<i>Institutional (Grantee) Name</i>	<i>Project Name</i>	<i>Award Amount</i>
<i>ACC-Institutional</i>	<i>"Access to Open Educational Resources (OER) Fosters Equity and Student Success"</i>	<i>\$46,000.00</i>
<i>Aims-Institutional</i>	<i>"Aims Community College's OER Tactical Goal Initiative: Building F2S (Free to Student) Courses"</i>	<i>\$36,000.00</i>
<i>ASU-Small Group II</i>	<i>"Adams State University Colorado Open Educational Resources (OER) Grant 2019-20 – Correspondence Education Program"</i>	<i>\$8,500.00</i>
<i>ASU-Small Group III</i>	<i>"Getting Ready: Preparing For &amp; Assessing ASU's Use of OER"</i>	<i>\$6,000.00</i>
<i>CCA-Institutional</i>	<i>"Community College of Aurora Incentivized OER Adoption Pilot"</i>	<i>\$31,000.00</i>
<i>CCCOOnline-Institutional</i>	<i>"Open for Business"</i>	<i>\$42,110.00</i>
<i>CCCS-Institutional II</i>	<i>"WeBWorK Consortium: A Collaborative Data Source for Math Instruction"</i>	<i>\$74,800.00</i>
<i>CCD-Institutional</i>	<i>"AA to Z Degree"</i>	<i>\$18,915.36</i>
<i>CCD-Small Group</i>	<i>"OER Spanish at CCD"</i>	<i>\$7,600.00</i>
<i>CMC-Institutional</i>	<i>"Deploying a system-wide approach to utilize Open Educational Resources (OER) at a rural multi-campus access institution"</i>	<i>\$36,000.00</i>
<i>CMU-Small Group I</i>	<i>"Developing an Open Educational Resources Textbook for Two-Dimensional Design (ARTE 101), a GTAHI course at Colorado Mesa University"</i>	<i>\$7,500.00</i>
<i>CMU-Small Group III</i>	<i>"Practicing What We Preach in Early Childhood Special Education: Making Learning Accessible For All"</i>	<i>\$5,000.00</i>
<i>CMU-Institutional</i>	<i>"Laying the Foundation for OER at Colorado Mesa University: Training Faculty and Staff to"</i>	<i>\$10,000.00</i>



	<i>Build Capacity for and Awareness of OER on Campus"</i>	
<i>CNCC-Institutional</i>	<i>"Making Education Affordable and Accessible: Colorado Northwestern Community College's OER Path to Student Success"</i>	\$36,000.00
<i>CSU-Institutional</i>	<i>"Open Educational Resources at Colorado State University Fort Collins: Continuing to Increase Awareness, Support Course Conversion, and Develop High Quality OER"</i>	\$76,000.00
<i>CSU-P-Institutional</i>	<i>"CSU-Pueblo: A DOER Campus by 2028, Year Two: Building Structure and Culture, Amassing Evidence"</i>	\$51,000.00
<i>CU-System-Institutional</i>	<i>"Open CU: Expanding a Successful OER Initiative"</i>	\$76,000.00
<i>FLC-Institutional</i>	<i>"Putting Students at the Center through OER"</i>	\$31,000.00
<i>FRCC-Institutional</i>	<i>"Demystifying Open Education Resources: Awareness, Discovery, and Adoption"</i>	\$41,000.00
<i>Mines-Institutional</i>	<i>"Deploying Open Educational Resource (OER) Development at Colorado School of Mines"</i>	\$38,000.00
<i>Mines-Small Group I</i>	<i>"Supporting STEM Students with OERs: Creating an Online Technical Communication Center"</i>	\$5,000.00
<i>Mines-Small Group II</i>	<i>"Open neurobiology: Open Educational Resource (OER) development for Neurobiology course"</i>	\$2,600.00
<i>Mines-Small Group IV</i>	<i>"Developing an OER Textbook for a Core Graduate Course in Fluid Mechanics"</i>	\$7,000.00
<i>MSU-Denver-Institutional</i>	<i>"Running the Open Road II: Second year of the Open Roadrunners program"</i>	\$76,000.00
<i>NJC</i>	<i>"Removing Educational Barriers and Increasing Opportunities for Student Success in Colorado Criminal Justice Programs"</i>	\$4,000.00
<i>PCC-Institutional</i>	<i>"Pueblo Community College OER Project"</i>	\$21,000.00
<i>PPCC-Institutional</i>	<i>"Pikes Peak Community College OER 2"</i>	\$51,000.00
<i>RRCC-Institutional</i>	<i>"Red Rocks Community College OER Pathway"</i>	\$46,000.00
<i>TSJC</i>	<i>"OER Integration in Occupational Safety and Health Technology Online Courses"</i>	\$7,500.00



<i>UCD-Institutional</i>	<i>"ThingPress: Open Education Infrastructure for OER Publication and Community of Practice"</i>	\$30,000.00
<i>UNC-Institutional</i>	<i>"Open Educational Resources: Scaling up at the University of Northern Colorado"</i>	\$42,874.64
<i>WCU-Institutional</i>	<i>"Western's Innovation Network for OER: Year 2 (WIN for OER)"</i>	\$23,100.00

<b><i>Proposals Offered OER Professional Development Funds</i></b>		
<i>ASU-Small Group I</i>	<i>"Pop Culture in the 20th Century Textbook and First Year Seminar"</i>	\$1,000.00
<i>Morgan Community College</i>	<i>"Planning the Future of OER at Morgan Community College: A Rural HIS Seeks to Develop a Comprehensive OER Program"</i>	\$4,500.00
<b>Total Awards for 2018-19 Grant Cycle: \$1,00,000.00</b>		

*Note: Additional proposals from CMU, Mines, CU-Denver were either not selected for funding nor were consolidated into institutional efforts.*





**COLORADO**

Department of  
Higher Education

**Colorado Department of Higher Education  
Colorado Open Educational Resources (OER) Grant 2019-20  
Request for Proposals (RFP)**

<b>Colorado Open Education Resources (OER) Grant</b>	
<b>Introduction</b>	The Colorado Commission on Higher Education solicits proposals for grants designed to expand the use of open educational resources (OER) across public postsecondary institutions in the state. The deadline for an institution, faculty, or staff to submit a proposal for consideration is <b>Friday, November 1, 2019</b> .
<b>Required Proposal Materials</b>	A complete proposal consists of a signed and executed: <ol style="list-style-type: none"> <li>(1) <a href="#">Cover sheet</a></li> <li>(2) <a href="#">Agreement</a></li> <li>(3) <a href="#">Application</a> <ol style="list-style-type: none"> <li>a. Institutional</li> <li>b. Individual or Small Group</li> <li>c. Continuation or Extension</li> </ol> </li> <li>(4) <a href="#">Budget Proposal</a> <ol style="list-style-type: none"> <li>a. Template</li> </ol> </li> </ol>
<b>Purpose</b>	<p><a href="#">House Bill 18-1331</a> (CRS C.R.S. 23-4.5-104) and the associated appropriation provide funding for expanding the use of open education resources (OER). The Colorado OER Council, established under the auspices of the bill, advises the Department of Higher Education on expanding the use of OER in public institutions of higher education around the state, including through the awarding and tracking of grant funds to create, adapt and promote the use of OER.</p> <p>Two types of proposals are solicited for an initial round of funding:</p> <ul style="list-style-type: none"> <li>● Those from public institutions of higher education to support and expand creation, adoption, adaptation and promotion of the use of OER across the institution and among multiple institutions; and</li> <li>● Those from faculty and/or staff of public institutions of higher education, individually or in small groups, to support the creation, adoption, adaptation and promotion of OER for specific courses, disciplines or programs.</li> </ul>
<b>Anticipated Outcomes</b>	<p>The Colorado OER Program is anticipated to:</p> <ul style="list-style-type: none"> <li>● Raise awareness of OER among faculty, staff and students in the state of Colorado</li> <li>● Provide grants of up to \$1,000,000 in funding to institutions, faculty and staff to support and expand creation, adoption, adaptation and promotion of the use of OER in the state of Colorado</li> <li>● Save students at Colorado’s public institutions of higher education \$2 million in textbook costs in the academic year 2020-2021</li> </ul>



	<p>Note: approximately half of available funds will be made available for new proposals, and half available for persisting programs for continuation of OER initiatives; this may change at the discretion of the Department and OER Council.</p>
<p><b>Process and Key Dates</b></p>	<p>Applications in response to the request for proposals (RFP) will be accepted beginning Aug. 8, 2019 The CDHE staff and OER Council will host a series of webinars between August and October 2019 to provide guidance on applications and answer questions about the requirements of this grant program. The deadline for proposals to be submitted is <b>Nov. 1, 2019</b>.</p> <p>All proposals should be emailed to <a href="mailto:spencer.ellis@dhe.state.co.us">spencer.ellis@dhe.state.co.us</a> as an attachment in PDF format by 5 p.m. MST on the date of the deadline. The proposal must be submitted:</p> <ul style="list-style-type: none"> <li>• As one PDF document and included as one attachment in the submission email</li> <li>• Letters of support may be attached to the application email as separate PDF documents.</li> <li>• The body of the application email must include the name and full contact details (including name, title, institutional affiliation, phone, email, and mailing address) of the project lead, as well as any secondary or tertiary contacts for the project.</li> </ul> <p>Members of the Colorado OER Council and/or their designees will review proposals and make recommendations to the CCHE about which proposals to fund and in what amount by February 2020 CDHE staff will bring OER Council recommendations for review and consent from the Commission during their February 2020 meeting.</p> <p><b>Payments &amp; Reports</b> Funds shall be dispersed by the CDHE in three equal installments: (1) March of 2020, (2) August of 2020 and (3) March of 2021, in concurrence with reporting requirements. All funds must be expended by June 15, 2021. Unexpended funds must be returned to the State general fund.</p> <p>Grantees must submit a progress report by July 30, 2020 and a final report by June 15, 2021. If reports are not submitted, funds are required to be returned to the Department.</p> <p><b>Note:</b> In order to avoid conflicts of interest, OER Council members will recuse themselves from reviewing and/or recommending proposals which they have written and/or those which are from their home institutions.</p>
<p><b>Available Funds</b></p>	<p>The Colorado OER Council will fund two types of grants with a total allocation of \$1,000,000 for the initial year:</p> <ul style="list-style-type: none"> <li>• Institutional Grants ranging from \$10,000-\$100,000 to support deploying and sustaining existing institution-wide OER initiatives, which may include the use of incentive funding for faculty and staff.</li> <li>• Individual or Small Group Grants ranging from \$250-\$9,999 that support the review, creation, adaptation or adoption of OER by faculty and/or staff,</li> </ul>



	<p>especially at institutions without an OER initiative or associated incentive funding.</p>
<p><b>Eligibility</b></p>	<p>Eligibility for the grant program is as follows:</p> <ul style="list-style-type: none"> <li>● Institutional Grants are open to any public postsecondary institution in the state of Colorado as defined in C.R.S. Title 23, which is inclusive of institutional systems.</li> <li>● Individual or Small Group Grants are open to any faculty, instructor or staff employed by a public institution of higher education in the state of Colorado.</li> </ul>
<p><b>Selection Criteria</b></p>	<p>The CCHE shall consider, but is not bound by, the recommendations of the Council. In making recommendations and awarding grants, the Council and the Commission shall consider whether the proposed grant-supported activity:</p> <ul style="list-style-type: none"> <li>(i) affects courses with high student enrollment or high textbook or materials costs;</li> <li>(ii) affects high-impact courses such as core courses, Guaranteed Transfer (GT) Pathways/General Education courses or courses included in concurrent enrollment agreements;</li> <li>(iii) supports adoption, adaptation and/or development of open educational resources by teams of faculty, librarians and instructional designers within a public institution of higher education or across multiple institutions, making it more likely that the resources will be used in multiple courses or sections;</li> <li>(iv) includes a demonstrated commitment to and plan for accessibility of materials;</li> <li>(v) aligns with departmental, institutional and/or state mission, goals or strategic initiatives.</li> </ul>
<p><b>Evaluation, Reporting &amp; Required Activities</b></p>	<p>All grant applications must include a description of how grant recipients will evaluate the use of the open educational resources developed using the grant. This should include estimates for the number of students who are affected and the cost savings to students as a result of the open educational resources developed using the grant. In addition to cost savings, other grant evaluation criteria may include the impact of using OER on student success. These can include, but are not limited to, DFW rates, assessment of student learning outcomes and student satisfaction, impact on retention and persistence or other student success measures.</p> <p>Grant recipients are expected to participate in ongoing, related activities at the request of the Council, which include:</p> <ul style="list-style-type: none"> <li>● data collection</li> <li>● reporting including internal reporting and engagement with Council surveys</li> <li>● ongoing efforts to make sure the supported activities are accessible</li> <li>● participation (to the extent scheduling allows) in virtual and annual convenings arranged by the OER Council and CDHE</li> </ul>



- funds that have not been used by final report date (June 2021) must be returned to the Department

**2019-20 Timeline Projection and Expectations**

Activity	Aug. 2019	Sep. 2019	Oct. 2019	Nov. 2019	Dec. 2019	Feb-Mar. 2020	Jul. 2020	Mar. 2021	Jul. 2021
RFP released and application submission window.									
Webinar on application process.									
Proposal review period.									
Recommendations taken to Commission									
Awarding and first of three payment of funds.									
Progress reporting from grantees and second of three payments of funds.									
Final payment of funds.									
Final reporting from grantees and return of unused funds.									

\* Note: the timeline above includes some approximations. Detailed deadlines will be issued to grant recipients with appropriate notice.

**For Information:** Please contact Spencer Ellis, Director of Educational Innovation, 303-862-3017, [spencer.ellis@dhe.state.co.us](mailto:spencer.ellis@dhe.state.co.us)

**Grant  
Proposal  
Process**



# 1. Cover Sheet

**Project Title:**

**Applicant(s) Names and Contact Information (please include email, phone, and address of primary, secondary, and tertiary contact for proposal:**

- 1.
- 2.
- 3.

**Application Type (select one):**

1. **Institutional Grants**
  - Ranging from \$10,000-\$100,000 to support deploying and sustaining existing institution-wide OER initiatives, which may include the use of incentive funding for faculty and staff.
2. **Individual or Small Group Grants**
  - Ranging from \$250-\$9,999 that would support the review, creation, adaptation or adoption of OER by faculty and/or staff, especially at institutions without an OER initiative or associated incentive funding.
3. **Continuation or Extension of Project**
  - Awards size vary depending on the need (no more than \$100,000).

**Institutional Affiliation(s):**

In an effort to create cross-campus OER networking and support, please indicate if you consent to sharing your contact information with other applicants from your institution, system or in the state. The Colorado OER Council intends to continue to connect potential partners throughout the state to pursue goals related to the charge of this initiative. **Pick one:**

**Yes;** I consent to sharing my information with potential collaborators.

**No;** please do not share my information with potential collaborators.



## 2. Agreement

### Colorado Open Educational Resources (OER) Grant Agreement

**Project Title:**

Each grant recipient, as a condition of receiving the grant, must:

1. Submit to the council data concerning the number of students affected by open educational resources developed or adapted using the grant; the estimated amount of student savings that results from using the open educational resources; measures of the effectiveness of the grant project; and
2. Agree to apply a Creative Commons license, which permits the creation of derivative works (CC-BY, CC-BY-SA, CC-BY-NC, CC-BY-NC-SA, or CC0, with CC-BY strongly preferred) to any copyrightable materials produced as part of grant-supported activities other than software, while licensing software with any open source license approved by the Open Source Initiative (such as the GNU Public License (GPL), Lesser GNU Public License (LGPL), Apache License, MIT License, with the GPL and LGPL strongly preferred); and
3. Post new or adapted open educational resources to an open repository in editable file formats or with source code; and
4. Agree to comply with the guidelines and parameters adopted by the council in this RFP for implementing the grants; and
5. Comply with the federal "Americans with Disabilities Act of 1990", 42 U.S.C. sec. 12101 et seq., as amended, to enable persons with disabilities to access the open educational resources developed or adapted using the grant; and
6. Conduct the activities as described in this proposal form; and
7. Provide institutional/organization funding and resources as stated in this proposal form; and
8. Comply with state requirements regarding the audit of a grant-funded program and supply CDHE with a copy of the mid-term report and any findings for each fiscal year in which those grant monies were expended within 60 days of the completion of the audit; and
9. Keep all records necessary for fiscal and program auditing and give CDHE, or the State Auditor access to and the right to examine all records, books, papers, or documents, related to this grant; and
10. Retain all fiscal records for a period of five years; and
11. Provide CDHE with required data and evaluation information; and
12. Comply with the administrative procedures and fiscal guidelines of CDHE including submission of final performance report; and
13. Comply with Title IV of the Civil Rights Act of 1964 (42 USC 2000d) prohibiting employment discriminatory practices that will result in unequal treatment of persons who are or should be benefiting from the grant aided activity.
14. Contact the CDHE with any project or budget modification requests prior to making any changes to the original proposal; and
15. The Colorado Department of Higher Education may terminate a grant award upon thirty (30) day notice if it is deemed by CDHE that the applicant is not fulfilling the requirements of the funded program as specified in the approved project application or if the program is generating less than satisfactory results.

I hereby provide assurances to the Colorado Department of Higher Education that if this institution/nonprofit organization receives a grant under the terms of the OER Grant, it will abide by the aforementioned items.

**Name, Title & Organization of Authorized Representative**

**Signature/Date**



### 3. Application

#### a. Application for Institutional Grants

<b>OER Institutional Grant Required Sections of the Proposal</b>	
<p>Please submit all required sections of the proposal in one document, not to exceed eight pages (addenda, including letters of support and detailed budget plan, are not included in this 8-page limit). Required sections of the proposal are detailed below.</p> <p><b>An application for an <u>institutional level grant</u> must include these ten (10) sections:</b></p>	
	<p>(i) evidence of the existence of an open educational resources committee, whether formal or informal, or list of the personnel who will be involved in the proposed project, or identification of individual or list of the individuals or personnel who will be involved in the proposed project; and</p>
	<p>(ii) a plan, with clearly identified and measurable goals, for expanding the adoption, adaptation and/or creation of open educational resources across the campus or institution that receives the grant, which may include awarding grants to faculty members, staff or faculty training and/or support; reducing a faculty member's required teaching hours; or providing other incentives to faculty for adapting and developing open educational resources; and</p>
	<p>(iii) identification of any library, instructional design, information technology, instructional and/or teacher and administrative staffing, including project partners, to support the open educational resources initiative for which a grant is requested; and</p>
	<p>(iv) the manner in which the courses that use open educational resources will be identified for students prior to the time of course registration, which may include identification in the schedule of classes; and</p>
	<p>(v) the plan for ensuring that open educational resources that are adapted or developed using the grant money are discoverable, publicized, and made available to other faculty and students within the public institution of higher education and other public institutions of higher education, including a description of any open licensing, which is detailed in item two (2) of the agreement page of this RFP; and</p>
	<p>(vi) the manner in which the grant recipient will evaluate the use of the open educational resources developed using the grant, which may include the number of students who are affected and the cost savings to students as a result of the open educational resources developed using the grant and/or the impact on student success which may include DFW rates, assessment of student learning outcomes, enrollment, and impact on retention and persistence, costs of resources replaced, survey data on student performance, student success or satisfaction with the OER/support (such as IT) used in parts of the project, etc.; and</p>
	<p>(vii) a plan for and commitment to sustaining the open educational resources initiative after the grant is completed; and</p>



	(viii) a plan for commitment to accessibility in compliance with the "Americans with Disabilities Act of 1990", 42 U.S.C. sec. 12101 et seq., as amended, to enable persons with disabilities to access to the open educational resources developed or adapted using the grant; and
	(ix) a detailed budget plan describing utilization of grant funds (see <a href="#">budget proposal template</a> below); and
	(x) demonstrated support from departmental or institutional leadership is required and will be accepted in the form of official letters of support (and may be included as separate attachments to the application email).

## b. Application for Individual or Small Group Grants

<b>OER Individual or Small Group Grant Required Sections of the Proposal</b>	
Please submit all required sections of the proposal in one document, not to exceed eight pages (addenda, including letters of support and detailed budget plan, are not included in this 8-page limit). Required sections of the proposal are detailed below.	
<b>An application for an <u>individual or small</u> group grant must include these eleven (11) sections:</b>	
	(i) evidence of the existence of an open educational resources committee, whether formal or informal, or list of the personnel who will be involved in the proposed project, or identification of individual or list of the individuals or personnel who will be involved in the proposed project; and
	(ii) information concerning the textbooks and other materials in use at the time the grant is received, the costs of the textbooks and materials; and
	(iii) a plan, with clearly identified and measurable goals, for how the applicant expects to use the grant money to adopt, adapt or develop open educational resources to replace the textbooks and other materials, steps the applicant will take to ensure the content produced meets accessibility guidelines; and
	(iv) identification of any library, instructional design, information technology, instructional and/or teacher and administrative staffing, including project partners, to support the open educational resources initiative for which a grant is requested; and
	(v) the manner in which the courses that use open educational resources will be identified for students prior to the time of course registration, which may include identification in the schedule of classes; and
	(vi) the plan for ensuring that open educational resources that are adapted or developed using the grant money are discoverable, publicized, and made available to other faculty and students within the public institution of higher education and



	other public institutions of higher education, including a description of any open licensing, which is detailed in item two (2) of the agreement page of this RFP; and
	(vii) the manner in which the grant recipient will evaluate the use of the open educational resources developed using the grant, which may include the number of students who are affected and the cost savings to students as a result of the open educational resources developed using the grant and/or the impact on student success which may include DFW rates, assessment of student learning outcomes, enrollment, and impact on retention and persistence, costs of resources replaced, survey data on student performance, student success or satisfaction with the OER/support (such as IT) used in parts of the project, etc.; and
	(viii) a plan for and commitment to sustaining the open educational resources initiative after the grant is completed; and
	(ix) a plan for commitment to accessibility in compliance with the "Americans with Disabilities Act of 1990", 42 U.S.C. sec. 12101 et seq., as amended, to enable persons with disabilities to access to the open educational resources developed or adapted using the grant; and
	(x) a detailed budget plan describing utilization of grant funds (see <a href="#">budget proposal template</a> below); and
	(xi) demonstrated support from departmental or institutional leadership is required and will be accepted in the form of official letters of support (and may be included as separate attachments to the application email).

### c. Application for Continuation or Extension of Funds

<b>OER Individual or Small Group Grant and Institutional Grants Required Sections of the Proposal</b>	
<p>Please submit all required sections of the proposal in one document, not to exceed eight pages (addenda, including letters of support and detailed budget plan, are not included in this 8-page limit). Required sections of the proposal are detailed below.</p> <p><b>An application for a <u>continuation or extension</u> grant funds must include these five (5) sections:</b></p>	
	(i) a summary of the state of current OER Grant program projects and assessment of progress; and
	(ii) narrative describing how a continuation of funding will help achieve clearly identified and measurable goals set forth by current proposal or local committee; and
	(iii) an updated and detailed budget plan describing utilization of grant funds (see <a href="#">budget proposal template</a> below); and



	(iv) demonstrated support from departmental or institutional leadership is required and will be accepted in the form of official letters of support (and may be included as separate attachments to the application email) and;
	(v) a detailed narrative highlighting and explaining any significant changes or points of emphasis that deviate from the intent and articulation of the original grant proposal, and how these new priorities align with the original goal described by the previous proposal.

## 4. Budget Proposals

### Proposed Program Budget

#### Instructions

- Please complete one budget per application.
- Please complete the budget form using the below template.
- Include information of any matching funds committed through your institution and/or partners.
- Please remember that this grant is a one-year grant and the budget should reflect one year of expenses.

#### **Budget Line Descriptions**

Provided below are brief descriptions and/or examples of expenses specific to each line item. You may choose to be more specific in your descriptions, or, include other items not listed below. This framework should be helpful (but is not exhaustive) in framing an initial budget proposal.

- Personnel: direct service provider, hourly staff, student employees, and tutors
- Benefits: health insurance and retirement
- Indirect Costs: up to 5% of total allowed for the administration of grant\*
- Travel: professional staff travel required for programming
- Professional Development: can include travel, registration and accommodations. Please include CDHE/OER Council required events and other relevant opportunities for professional development.
- Official Functions: food and snack expenses
- Equipment: materials, supporting auxiliary items, supplies needed for events, space, and student use
- Incentives: items purchased to encourage participation

\*Please note this is the written policy regarding indirect costs for this grant program.



**Budget Worksheet for OER Program, Staff & Activities**

	Requested Grant Funding	Matching Funds (Cash or In-Kind)	Project Totals
Personnel & Benefits			
Indirect costs			
Professional Development			
Travel			
Equipment, Materials & Supplies			
Official Functions			
Incentives			
Other (Feel free to add other categories if not included in this template)			
<b>OVERALL COMBINED TOTAL</b>			

Please be sure to double-check math to ensure columns and rows add up correctly.

**Budget Narrative**

Please summarize the proposed uses of grant funds detailing each budget category.

**TOPIC:** PROPOSED BACHELOR OF SCIENCE DEGREE IN CANNABIS BIOLOGY AND CHEMISTRY AT COLORADO STATE UNIVERSITY-PUEBLO

**PREPARED BY:** DR. CHRIS RASMUSSEN, DIRECTOR OF ACADEMIC AFFAIRS

## **I. SUMMARY**

This agenda item presents for Commission discussion and potential action a proposed Bachelor of Science degree in cannabis biology and chemistry at Colorado State University-Pueblo (CSU-Pueblo). The Commission on Higher Education has approval authority for any cannabis-related degrees and certifications per §23-31.5-112 (3)(d), Colorado Revised Statutes.

## **II. BACKGROUND**

On May 29, 2019, Governor Polis signed House Bill 19-1311, creating the Institute of Cannabis Research (ICR) at CSU-Pueblo. The bill outlined the Institute’s governance structure and addressed requirements for institutions of higher education that seek to develop cannabis-related degrees or certificates. The bill amended §23-31.5-112, C.R.S., adding subsection (3)(d), which reads, “the [ICR] governing board shall advise any Colorado institution of higher education that seeks to develop a cannabis-specific curriculum. The Colorado commission on higher education shall seek input from the governing board before approving any cannabis-related degrees or certification.”

On December 11, 2019, the Department received notification that the Board of Governors of Colorado State University had approved a Bachelor of Science degree program in cannabis biology and chemistry at the Pueblo campus, and that CSU-Pueblo was seeking CCHE approval of the degree. The degree proposal had been presented to the ICR governing board on November 18, which was also the very first meeting of the board. The board was just beginning discussions of how to carry out its statutory role and mandates and had not yet developed a process for reviewing cannabis-related curricula. The board agreed that one of its four appointed members associated with cannabis-related industries would review the proposal with other industry stakeholders and provide feedback to CSU-Pueblo.

The next step in the process was for Department staff—acting on behalf of the Commission—to “seek input” from the ICR governing board on the proposed degree, and more generally to define what “seeking input” means in an operational sense (in anticipation of the Department receiving additional cannabis-related degree and certificate proposals from institutions of higher education). The next meeting of the ICR board was scheduled for January 10, 2020. In the meantime, Department staff engaged in dialogue with academic leadership of CSU-Pueblo and the executive director of the Institute of Cannabis Research in an effort to exert appropriate due diligence in preparation for bringing a recommendation on the program to the Commission.

The Department’s Director of Academic Affairs attended the January 10 meeting of the ICR board and answered questions regarding statutory requirements and CCHE policies for academic programs. The board asked for an additional opportunity to learn more about the proposed degree program, and a special

meeting of the board was held on January 24 for that purpose (also attended by the Director of Academic Affairs). At this meeting the board passed a motion of support for the proposed degree program.

On January 7, the Department opened a 30-day public comment period on the proposed degree, which is standard practice for any proposed academic program for which there are statutory requirements and criteria that go beyond a fit with institutional role and mission. The proposal was also discussed at the January 14 meeting of the Academic Council.

### **III. STAFF ANALYSIS**

There are three provisions within §23-31.5-112 (3)(d) that require definition in policy:

- 1) ICR governing board “advisement” to institutions that seek to develop cannabis-specific curricula;
- 2) Department staff “seeking input” from the ICR governing board; and
- 3) Commission approval of cannabis-related programs.

Department staff are working with the ICR board and staff to flesh out (1) and (2). Department staff will draft language to address (3) and revise CCHE Policy I, V (Creation, Modification, and Discontinuance of Academic Programs) to include cannabis-related degrees and certifications. The proposed revisions will be vetted through standard processes, including a review by Academic Council, before being brought to the Commission for discussion and action. A CCHE policy change and associated processes are expected to be finalized in April.

In the meantime, the Department staff have engaged in a thorough and prudent due diligence process in reviewing the proposed bachelor’s degree program from CSU-Pueblo. In order to effectively launch the program in the Fall 2020 semester, CSU-Pueblo requires approval from the Commission no later than at its March meeting (with February being optimal). In the interest of supporting programmatic innovations to address workforce needs and maintain a competitive edge for Colorado in the cannabis industry, Department staff are bringing this program to the Commission now for consideration.

The statute addressing cannabis-related academic programs does not include any specific criteria that must be met by institutions seeking Commission approval. For consistency, the Department staff believe that the standard criteria used by governing boards and accrediting agencies in reviewing academic programs should be used for these programs. These criteria include:

- Fit with statutory role and mission
- Demonstrated workforce demand and student interest in the program
- Sufficiency of resources—including faculty expertise—to deliver a quality program
- Cost effectiveness of the program, including projections of revenue and expenses
- Absence of duplicative programs in the institution’s service area, or sufficient need and demand to merit launching a similar program
- Required approvals from the governing board and applicable accrediting agencies (or evidence that approval processes have been initiated)

Upon review of materials submitted by CSU-Pueblo and additional information provided by academic leadership and ICR representatives, Department staff believe the proposed degree program fulfills all of

these criteria. It should be noted that students in the major will work with low-THC hemp but **will not** work with marijuana (cannabis with THC concentration > 0.3%) due to its federally illegal status. CSU-Pueblo officials have indicated that this could change if there is a change in federal law.

Attached to this agenda item are a number of documents that provide context and rationale for the proposed program:

- Appendix A: CSU Pueblo Cannabis Biology and Chemistry White Paper
- Appendix B: CSU Pueblo CannabisBioChem (submission to CSU Board of Governors)
- Appendix C: CSU Pueblo CBC major curriculum presentation (document used for presentation to the ICR governing board on January 24)
- Appendix D: CSU BOG draft minutes 120619 (confirming CSU board approval of the degree; official minutes will not be available until after the next meeting of the CSU board)
- Appendix E: ICR Governing Board Minutes 11.18.19
- Appendix F: Letter from ICR supporting CSU Pueblo degree

The following text is taken from the introduction of the CSU Pueblo Cannabis Biology and Chemistry White Paper (Appendix A):

We propose to create a new major housed in the Department of Chemistry at CSU-Pueblo entitled Cannabis Biology and Chemistry. The course work envisioned in this proposal is primarily physical and natural science courses in chemistry and biology with supporting coursework in math, physics, and appropriate general education offerings.

We believe that the demand for this new major is strong, based on:

- A market analysis by EAB and numbers from the Bureau of Labor Statistics (BLS)
- Demand from current hemp growers, product producers and distributors
- Discussions with current students
- Analysis of a similar program at Northern Michigan University
- Interviews with regional medical and governmental entities

Although housed in the Department of Chemistry, the program is truly interdisciplinary in nature, requiring substantial coursework in Biology and Chemistry, and CSU-Pueblo is uniquely positioned to be offering this new degree:

- The location in southern Colorado with a strong agricultural expertise in producing cannabis and cannabis products including industrial hemp provides a wealth of expertise that can be drawn on to ensure the program is relevant and needed for the industry.
- A Cannabis Biology and Chemistry program at a Hispanic-Serving Institution like CSU-Pueblo would help to address the nationwide demand for diversity in employment within the industrial hemp and cannabis industries.
- The Institute of Cannabis Research (ICR) established at CSU-Pueblo by the state of Colorado in 2016 has enhanced the capability and capacity of CSU-Pueblo faculty expertise in cannabis significantly. The international ICR Conference hosted on campus every year has established CSU-Pueblo as a major contributor to cannabis science on a world-wide platform, including the

launch of a Springer hosted Journal of Cannabis Research. The focus strictly on research has established CSU-Pueblo as an unbiased institution from which a science-based major should be well-received.

- The Departments of Chemistry and Biology already offer most of the courses needed for this major, and only requires the creation of four new upper division courses to offer a degree program with two options, a natural products track (biology) or an analytical track (chemistry).
- Students will benefit from the rigorous degree by earning a chemistry minor in either track and a biology minor in the natural products track.
- The College of Science and Mathematics has a track record of establishing a viable new program using the same methodology as what is proposed here when the Wildlife and Natural Resources major was officially started in fall of 2018 and already has over 60 majors.

#### **IV. STAFF RECOMMENDATIONS**

**Discussion item. In the event the Commission moves this as an action item, staff recommends that the Commission approve the Bachelor of Science degree in Cannabis Biology and Chemistry at Colorado State University-Pueblo.**

#### **V. STATUTORY AUTHORITY**

##### **C.R.S. §23-31.5-112**

**Institute of cannabis research – governing board – powers relating to the receipt and use of certain tax revenues – definitions.**

...

(2)(a) There is created the institute of cannabis research, to be housed at Colorado state university - Pueblo, unless a relocation occurs pursuant to subsection (7) of this section.

...

(3)(d) The governing board shall advise any Colorado institution of higher education that seeks to develop a cannabis-specific curriculum. The Colorado commission on higher education shall seek input from the governing board before approving any cannabis-related degrees or certification.

## Cannabis Biology and Chemistry Major at CSU-Pueblo

Submitted by the Department of Chemistry and the Department of Biology - CSU-Pueblo

*with significant contributions from:*

Dr. David Lehmpuhl, Dean, College of Science and Mathematics  
Dr. Chad Kinney, Director of the Institute of Cannabis Research  
Dr. John Williamson, Director of Research and Sponsored Programs  
Dr. Moussa Diawara, Chair of Biology  
Dr. David Dillon, Chair of Chemistry



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## **1. Brief Background and Overview of Proposed Program**

- Name of Major/Program: **Cannabis Biology and Chemistry**
- Degree type: **BS**
- Department: **Department of Chemistry**
- College: **College of Science and Mathematics**
- Expected number of students enrolled in program five years post-implementation: **60**

We propose to create a new major housed in the Department of Chemistry at CSU-Pueblo entitled Cannabis Biology and Chemistry. The course work envisioned in this proposal is primarily physical and natural science courses in chemistry and biology with supporting coursework in math, physics, and appropriate general education offerings.

We believe that the demand for this new major is strong, based on:

- A market analysis by EAB and numbers from the Bureau of Labor Statistics (BLS)
- Demand from current hemp growers, product producers and distributors
- Discussions with current students
- Analysis of a similar program at Northern Michigan University
- Interviews with regional medical and governmental entities

Although housed in the Department of Chemistry, the program is truly interdisciplinary in nature, requiring substantial coursework in Biology and Chemistry, and CSU-Pueblo is uniquely positioned to be offering this new degree:

- Our location in southern Colorado with a strong agricultural expertise in producing cannabis and cannabis products including industrial hemp provides a wealth of expertise that can be drawn on to ensure the program is relevant and needed for the industry.
- A Cannabis Biology and Chemistry program at a Hispanic-Serving Institution like CSU-Pueblo would help to address the nationwide demand for diversity in employment within the industrial hemp and cannabis industries.
- The Institute of Cannabis Research (ICR) established at CSU-Pueblo by the state of Colorado in 2016 has enhanced the capability and capacity of CSU-Pueblo faculty expertise in cannabis significantly. The international ICR Conference hosted on campus every year has established CSU-Pueblo as a major contributor to cannabis science on a world-wide platform, including the launch of a Springer hosted Journal of Cannabis Research. The focus strictly on research has established CSU-Pueblo as an unbiased institution from which a science-based major should be well-received.
- The Departments of Chemistry and Biology already offer most of the courses needed for this major, and only requires the creation of four new upper division courses to offer a degree program with two options, a natural products track (biology) or an analytical track (chemistry).
- Students will benefit from the rigorous degree by earning a chemistry minor in either track and a biology minor in the natural products track.

- The College of Science and Mathematics has a track record of establishing a viable new program using the same methodology as what is proposed here when the Wildlife and Natural Resources major was officially started in fall of 2018 and already has over 60 majors.

We are prepared to begin offering this major during the 2020-2021 academic year, given that the lower-level coursework exists and is being offered already for new freshman. During the 2019-20 AY we would gain the necessary approvals and hopefully hire a visiting assistant professor or teaching postdoc who would develop the new upper-division coursework and be responsible for establishing the program. Below is a tentative 5 year timeline:

- Year 1 (19-20)** – Submit the proposal for the new major to the Curriculum and Academic Programs Board (CAPB) and to the CDHE for approval. If approvals occur quickly enough, a search for a Visiting Assistant Professor (VAP) or teaching postdoc with the appropriate expertise to develop the needed coursework will commence.
- Year 2 (20-21)** – Hire VAP or postdoc for program development. Official start of the cannabis Biology and Chemistry major occurs with the Fall 2020 catalog. Development and first offering of CBC 413/L – Cannabis Physiology and Growth and Lab. Create documents for recruitment and begin recruiting.
- Year 3 (21-22)** – First offerings of CBC 401 – Medicinal Plants, and CBC 422 – Cannabis Extraction and Analysis and Lab.
- Year 4 (22-23)** – First internal review of program enrollment. First offering of CBC 463 – Medicinal Chemistry and Pharmacology. Graduation of first majors (transfers and existing CSU-Pueblo students)
- Year 5 (23-24)** – Graduation of first freshman majors. Second internal evaluation and full program review of the new major. If sustainable, search and hire Tenure Track faculty member to the established program.

## **2. Mission Appropriateness**

Colorado State University-Pueblo is a regional, comprehensive university serving southeast Colorado and the southwest United States. The university is undergoing a comprehensive visioning process called Vision 2028 which sets our Values, Mission and Guiding principles as follows:

**Our Values:** CSU-Pueblo is dedicated to interdisciplinary learning and entrepreneurship that elevates our people and our community, creates educational opportunities, fosters unique collaborations, and supports inclusion, access, and affordability as a gateway to the world.

**Our Mission:** CSU-Pueblo's success will be measured by the resilience, agility, and problem-solving abilities of our diverse student population and the ways in which our graduates are able to navigate work in a rapidly changing world.

**Guiding Principles:**

- **Develop People:** CSU-Pueblo develops people who have meaningful lives and make significant contributions to their families, communities, and world.

- Transform Learning: CSU-Pueblo creates new opportunities by reimagining academic experiences.
- Live Sustainably: CSU-Pueblo dedicates resources and focus toward programs and policies that support sustainable living.
- Cultivate Entrepreneurship: CSU-Pueblo creates educational, economic, cultural, and global innovators.
- Engage Place: CSU-Pueblo embraces our regional histories, diverse cultures, socioeconomic realities, and physical location.
- Build Knowledge: CSU-Pueblo advances research and scholarship that serves the public good.
- Empower Students: CSU-Pueblo empowers whole-student success in and out of the classroom.
- Impact Society: CSU-Pueblo elevates the region through our commitment to the health and well-being of our people and our communities.

Specific initiatives related to the Vision 2028 are in process of review and system funding, and the new Cannabis Biology and Chemistry program fits well within the Guiding Principles of Vision 2028. CSU-Pueblo is committed to providing access to students of southern Colorado which reflects southern Colorado's culturally and ethnically diverse student body, including first generation students.

### **3. Rationale for the Cannabis Biology and Chemistry Major**

Given the input we have received from the people, reports, and agencies below, we believe that conservatively we could have **15 new freshman students enrolled in this major every year**, starting in Fall 2020. We believe that **60 new students will be enrolled in this major after 4 years**, and we believe that the demand for this new major is strong.

The new major is a pro-active response to a rapidly changing national scene regarding the cannabis plant. The genus *Cannabis* includes marijuana (often *Cannabis indica*), which contains a psychoactive ingredient tetrahydrocannabinol (THC) at concentrations above 0.3% by weight, and hemp (often *Cannabis sativa*), which contains less than 0.3% THC and is not psychoactive. Marijuana is classified as a Schedule I substance at the national level by the Drug Enforcement Administration indicating no accepted medical use and a high potential for abuse. Agricultural Hemp was reclassified as a farm crop with the signing of the 2018 Farm Act on December 22, 2018. This allows it to be legally grown as an agricultural crop used for food, fuel, and other products. Prior to this signing, however, hemp was also mostly classified as a Schedule I substance, meaning little legal research has been done on the plant.

Laws and regulations related to cannabis are very fluid and have dramatically changed in a relatively short period of time. In 1996, California became the first state to legalize medical cannabis and since then 32 more states have followed suit with 14 others that have legalized cannabis for medical use with limited THC content. In 2012 Colorado and Washington became the first two states to legalize cannabis for recreational use and now 9 states and the District of Columbia allow it, including California. About 1 in 5 Americans currently live in states where cannabis is recreationally legal.

In addition, according to the Colorado Department of Revenue, sales of marijuana in Colorado have been increasing each year with \$680 million in 2014 to \$5.9 billion in 2018. CNN reported that there were around \$9 billion in sales in the cannabis industry in 2017, about \$11 billion in 2018, and sales are projected to increase to \$21 billion by 2021. Much of this is likely grown, processed, sold and consumed by people with little in the way of science understanding, an important consideration for public health.

The need for higher education to respond to the rapidly changing landscape surrounding cannabis is reflected in this proposal. Educating students who are capable of understanding cannabis science is required for the industry in all its aspects to be effective and safe for the consumer. Although much of the degree is based on currently offered courses, this background is necessary to delve into the more advanced topics explored in the proposed new courses. Much like forensic science, cannabis science is basic science applied to a set of specific topics and students with this degree will be employable in any number of science positions and could pursue further education in chemistry, biology or any number of professional fields and would not be limited to just the cannabis industry.

A market demand analysis for a bachelor’s-level medicinal plant chemistry program was completed in 2018 by EAB. Medicinal Plant Chemistry is the closest match to what is currently a completely unique major proposal. The report estimated demand for job postings that included plant sciences, botany/plant biology, with skills in chemistry or agronomy and farming. Regional demand was reported to have increased 64% since 2013 and the BLS projects employment to increase seven percent from 2016 to 2026, nine percent for soil and plant scientists. According to the report, these predictions align with or surpass the projected employment growth of 7.5 percent across all occupations over the same time period. This report was completed prior to the reclassification of industrial hemp by the Farm Act in 2018. This reclassification should enhance the demand for the major over what was reported in the EAB analysis.

An informal survey of Biology 100 students (Principles of Biology, a non-major general education course) during the spring 2019 semester indicated a strong interest in a Cannabis Biology and Chemistry major.

This degree is highly interdisciplinary and gives students a solid foundation in both chemistry and biology. As a result, students will be able to be competitive in a wide variety of businesses outside of the cannabis industry. The Bureau of Labor Statistics Occupational Outlook for students completing the degree include the following (<https://www.bls.gov/ooh/life-physical-and-social-science/home.htm>):

Occupation	Job Summary	2018 Median Pay	Projected Growth 2016-2026
Agricultural and Food Scientists	Agricultural and food scientists research ways to improve the efficiency and safety of agricultural establishments and products.	\$64,020	7% (as fast as average)

Biological Technicians	Biological technicians help biological and medical scientists conduct laboratory tests and experiments.	\$44,500	10% (faster than average)
Biochemists and Biophysicists	Biochemists and biophysicists study the chemical and physical principles of living things and of biological processes, such as cell development, growth, heredity, and disease.	\$93,280	11% (faster than average)
Chemical Technicians	Chemical technicians use special instruments and techniques to help chemists and chemical engineers research, develop, produce, and test chemical products and processes.	\$48,160	4% (slower than average)
Chemists and Materials Scientists	Chemists and materials scientists study substances at the atomic and molecular levels and analyze the ways in which the substances interact with one another. They use their knowledge to develop new and improved products and to test the quality of manufactured goods.	\$78,330	7% (as fast as average)
Environmental Scientists and Specialists	Environmental scientists and specialists use their knowledge of the natural sciences to protect the environment and human health. They may clean up polluted areas, advise policymakers, or work with industry to reduce waste.	\$71,130	11% (faster than average)

#### **4. CSU System and State and National Positioning**

Within Colorado, there are no other higher education institutions that offer a major in Cannabis Biology and Chemistry or something similar. Other than select faculty whose research may involve hemp or cannabis, the following are other course or program offerings that may be related to the proposed program in Colorado.

##### **1. Colorado State University – Pueblo**

Cannabis Studies minor—a 22 credit program of study designed for students seeking to complement their major program of study in Social Work, Sociology, History, Political Science or other programs. The proposed major is science-based and is supplementary to the existing minor program.

##### **2. Adams State**

Industrial Hemp Initiative—Aim is to create a viable hemp seed program and to develop a large-scale, hemp-based economy in the San Luis Valley. Adams is partnering with the CO Dept of Agriculture and Denver-based International Hemp Solutions and Bija Hemp but no coursework or programmatic offerings are mentioned.

### 3. University of Denver

Offers a couple of courses dealing with cannabis including Cannabis Journalism and Representing the Marijuana Client offered through their Sturm College of Law.

### 4. Northern Michigan University—Bachelor’s in Medicinal Plant Chemistry

There are very few program offerings like the curriculum proposed anywhere in the country. The largest, most established program is from Northern Michigan University which offers a Bachelor’s degree in Medicinal Plant Chemistry that is primarily tailored to those wanting to enter the cannabis field. As of spring of 2018, it is the only four-year undergraduate degree program like it in the world and the program at CSU-Pueblo would be second. The program came on line in Fall of 2017 and the growth has been nothing short of spectacular. Figure 1 shows the amazing growth in chemistry students after the addition of the program that is also based on courses heavy in natural and physical science.

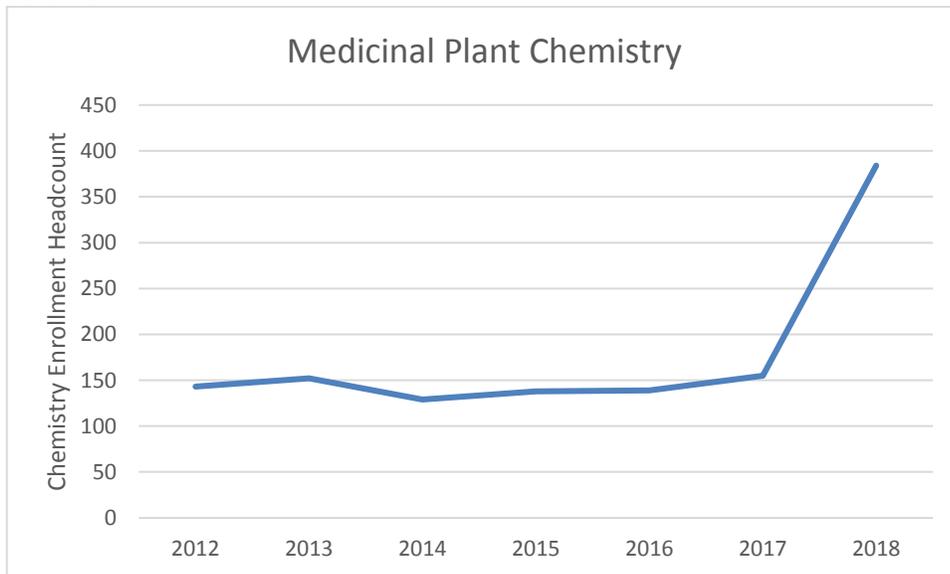


Figure 1: Data obtained from the Northern Michigan University website of institutional research showing chemistry enrollment headcount by department.

<https://www.nmu.edu/institutionalresearch/enrollment-factbook> accessed 5/8/19.

5. Southern Illinois University Carbondale—developing a program expected to lead to a certificate in medicinal cannabis production. In fall of 2018 the university began preparations of 5 acres of land that will be used to research industrial hemp with actual planting expected to occur during the spring of 2019. Current steps have gained approval for growing industrial hemp for research with plans calling for programs to be developed through the department of plant biology and the College of Agricultural Sciences around the dual areas of industrial hemp science and medicinal cannabis science.

### Proposed Enrollments

We expect at least 60 students enrolled in the program five years after implementation. The program at Northern Michigan University was heavily advertised and promoted as serving the newly-forming cannabis field. As such, the new enrollment in the second year of the program was almost 230. It's expected that the initial novelty of new programs like this will wear off and because it is a program based in a difficult curriculum, retention may be low for those who are academically at risk. Additionally, given the success of the Northern Michigan program it is anticipated that additional programs will be opening up and competition will likely occur in the near-term. An estimated 60 majors or approximately 25% of the success of the Northern Michigan program is a conservative estimate. If the program were to grow as fast as the example above, significant additional resources would be required. There are currently about 75 chemistry majors and the department, which would include the proposed Cannabis Biology and Chemistry, has the capacity to grow to about 130 majors with the addition of the Cannabis Biology and Chemistry faculty member.

### **5. Special Undergraduate Admissions standards**

None

### **6. Curriculum and Program Outcomes**

The Departments of Chemistry and Biology in the College of Science and Mathematics (CSM) requests approval of a new baccalaureate degree program titled Bachelor of Science in Cannabis Biology and Chemistry effective fall 2020. The Cannabis Biology and Chemistry program at CSU-Pueblo will allow students to pursue one of two tracks, the natural products track which is more biology based, or the analytical track which is more chemistry based. Both tracks provide a solid foundation in chemistry and biology, in fact, students in both tracks will earn a chemistry minor while students in the natural products track will also earn a biology minor with a biology minor also easily attainable in the analytical track.

#### Proposed Cannabis Biology and Chemistry Program Goals

- To supply students with the necessary coursework to serve as leaders in an emerging cannabis field, providing a non-biased, science-based approach to problem solving and data collection and analysis.
- To prepare students upon graduation to enter field positions in government or private industry.
- To provide students with the necessary background to successfully pursue graduate study towards a professional career in natural products, plant chemistry or plant biology.

#### Proposed Cannabis Biology and Chemistry Expected Student Outcomes

- Students will understand basic chemical and biological principles applied in these fields and how those principles can be applied to the emerging field of cannabis science.

- Students will understand cannabis physiology and growth, the pharmacological implications, and the practical applications for the industry.
- Students will use contemporary instruments and techniques for studying plant biological and chemical processes.
- Students will develop communication and interpersonal skills to enhance their working relations with co-workers, other professionals, the public and non-governmental organizations.
- Students will develop skills in reading and interpreting the scientific literature and in presenting a synthesis of it accurately in oral and written form.
- Students will demonstrate critical thinking and problem solving skills using experimental design and the scientific process.

## Curriculum

### B.S. Cannabis Biology and Chemistry Major

#### Natural Products Track

\*Designates new courses

##### **Core Courses (46 credits)**

BIOL 181/181L – College Biology I/Lab (4 credits)  
BIOL 182/182L – College Biology II/Lab (4 credits)  
BIOL 201/201L – Botany/Lab (4 credits)  
BIOL 465 – Environmental Toxicology (3 credits)  
CHEM 121/L – General Chemistry I/Lab (5 credits)  
CHEM 122/L – General Chemistry II/Lab (5 credits)  
CHEM 301/L – Organic Chemistry I/Lab (5 credits)  
CHEM 302/L – Organic Chemistry II/Lab (5 credits)  
CHEM 311 – Intro to Biochemistry (3 credits)  
**CBC 413/L\* – Cannabis Physiology and Growth (4 credits)**  
**CBC 463\* – Medicinal Chemistry and Pharmacology (3 credits)**  
**CBC 493\* – Seminar (1 credit)**

##### **Other Required Courses (11 credits)**

BIOL 171 – First Year Seminar (1 credit)  
BIOL 350 -- Mendelian and Pop Genetics (2 credits)  
BIOL 351 – Molecular Biology and Genetics (2 credits)  
BIOL 422 – Neurobiology (3 credits)  
**CBC 401\* -- Medicinal Plant Biochemistry (3 credits)**

**Advisor Approved Electives (9-11 credits)** At least 6 upper division credits

##### **Support Courses (10-13 credits)**

MATH 126 – Calculus and Analytical Geometry I (5 credits) or  
MATH 221 – Applied Calculus: An Intuitive Approach (4 credits)  
PHYS 201 -- Principles of Physics I (3 credits) or PHYS 221 – General Physics I (4 credits)  
PHYS 202 – Principles of Physics II (3 credits) or PHYS 222 – General Physics II (4 credits)

##### **General Education Courses (24 credits)**

ENG 101 – English Composition I (3 credits)  
ENG 102 – English Composition II (3 credits)  
History -- 1 course (3 credits)  
Humanities – 3 courses (9 credits)  
Social Sciences – 2 courses (6 credits)

**General Electives (15-19 credits)** Students are encouraged to take other courses relevant to the subject such as PS223 Criminal Law or SOC 203 Criminal Justice System

**Total Credit Hours - 120 credits**

#### Analytical Track

\*Designates new courses

##### **Core Courses (46 credits)**

BIOL 181/181L – College Biology I/Lab (4 credits)  
BIOL 182/182L – College Biology II/Lab (4 credits)  
BIOL 201/201L – Botany/Lab (4 credits)  
BIOL 465 – Environmental Toxicology (3 credits)  
CHEM 121/L – General Chemistry I/Lab (5 credits)  
CHEM 122/L – General Chemistry II/Lab (5 credits)  
CHEM 301/L – Organic Chemistry I/Lab (5 credits)  
CHEM 302/L – Organic Chemistry II/Lab (5 credits)  
CHEM 311 – Intro to Biochemistry (3 credits)  
**CBC 413/L\* – Cannabis Physiology and Growth (4 credits)**  
**CBC 463\* – Medicinal Chemistry and Pharmacology (3 credits)**  
**CBC 493\* – Seminar (1 credit)**

##### **Other Required Courses (18 credits)**

CHEM 170/370 – Academic Orientation/Enrichment (1 credit)  
CHEM 317/L – Quantitative Analysis/Lab (5 credits)  
CHEM 322 – Physical Chemistry II (3 credits)  
CHEM 419/L – Instrumental Analysis/Lab (5 credits)  
**CBC 422/L\* -- Natural Products Extraction and Analysis/Lab (4 credits)**

**Advisor Approved Electives (5-7 credits)**

##### **Support Courses (16-18 credits)**

MATH 126 – Calculus and Analytical Geometry I (5 credits)  
MATH 224 – Calculus and Analytical Geometry II (5 credits)  
PHYS 201 -- Principles of Physics I (3 credits) or PHYS 221 – General Physics I (4 credits)  
PHYS 202 – Principles of Physics II (3 credits) or PHYS 222 – General Physics II (4 credits)

##### **General Education Courses (24 credits)**

ENG 101 – English Composition I (3 credits)  
ENG 102 – English Composition II (3 credits)  
History -- 1 course (3 credits)  
Humanities – 3 courses (9 credits)  
Social Sciences – 2 courses (6 credits)

**General Electives (7-11 credits)** Students are encouraged to take other courses relevant to the subject such as PS223 Criminal Law or SOC 203 Criminal Justice System

**Total Credit Hours - 120 Credits**

### **Proposed New Courses:**

**CBC 401 – Medicinal Plant Biochemistry - 3(3-0)** – For millennia humankind has relied heavily on plants for food and also for the alleviation of diseases. Natural products have always contributed extensively towards the development of modern medicine, and still continue to play a significant role in drug discovery. Most therapeutically active molecules are plant secondary metabolites, capable of interacting with a diverse range of macromolecules such as proteins, DNA, and the like, and thus exhibiting important biological functions that can be utilized to yield biomolecules of therapeutic importance. This course will focus on the plants and their biochemical pathways that produce bioactive molecules.

**CBC 413/L – Cannabis Physiology and Growth - 4(3-1)** – Cannabis sativa L. is one of the oldest medicinal plants used by humans. For thousands of years, the plant has also been used for fiber, oil production, and simply as additive for food products. This course will provide an overview of the botanical aspects of the genus Cannabis, such as, macroscopical and microscopical features, taxonomic classification, the varieties, and genomics. Also to be examined is the geographical distribution, agricultural status, the current state of knowledge of different cultivation forms, including outdoor, indoor, and propagation.

**CBC 422/L – Natural Products Extraction and Analysis - 4(3-1)** – Bench top and instrumental techniques for the extraction and chemical analysis of natural products from various sources. The lab will employ laboratory techniques to extract, cleanup, and qualitatively/quantitatively analyze natural products

**CBC 463—Medicinal Chemistry and Pharmacology (3-0)** The chemical and biological features a bioactive molecule's absorption, distribution, interaction with receptors and biological components, metabolism, excretion, and toxicology are key processes in understanding drug action. By understanding these processes, both chemically and biologically allows for a logical approach for synthetically modifying these properties to produce a safe and effective drug. These courses will provide a basic overview of these processes and the art and logic of organic medicinal chemistry properties.

### **Additional House Courses:**

**CBC 491—Special Topics (1-5 VAR)**

**CBC 492—Research— (1-6 VAR)** – Faculty directed research project for undergraduate student. May be repeated for a maximum of 3 credits, total. Prerequisite: Permission of instructor.

**CBC 493—Seminar – 1(1-0)** – Research, create and present a formal presentation on cannabis biology and chemistry research or a current topic in the chemical or biological literature using software-based delivery methods. This course to be cross-listed with Biol 493 or Chem 493.

**CBC 495—Independent Study (1-6 VAR)**

**CBC 498—Internship (1-6 VAR)**

### **7A. Potential CSU System Collaborations:**

Potential system collaborations revolve around the expected growth and introduction of cannabis-related curriculum and research which is ever-expanding in the system. These would include collaborations with

- Colorado State University Extension through which Agriculture and Business Management has already produced risk assessments and notes on industrial hemp. Potential collaborations with the Extension Research Station at Rocky Ford, CO have already been initiated.
- The CSU School of Veterinary Medicine through which research collaborations with the Institute of Cannabis Research (ICR) on the CSU-Pueblo campus have already commenced.
- The CSU College of Agricultural Sciences who is involved in many aspects of hemp cultivation including pest management and pesticides in addition to various hemp strains and growing conditions.
- ICR-coordinated activities that will result from recent changes to the governing board that will enhance cannabis research and curriculum development across the state.

### **7B. Potential non-CSU System Collaborations:**

Our location in southern Colorado, the “silicon valley of Cannabis”, affords the potential of many collaborators in the legal industrial hemp industry. Should regulations change regarding the legal status of marijuana, CSU-Pueblo is ideally positioned to leverage additional collaborations in an industry that is extremely eager to become legitimate and reputable. In the meantime, care will be taken to ensure any potential collaborations protect both the students in the CBC major, CSU-Pueblo, and the CSU-system.

Curricular collaborations with any number of institutions of higher education offering cannabis-related coursework will be possible as each proposed track affords a number of elective credits that could be drawn upon from for expertise outside CSU-Pueblo or the CSU-System.

### **8. Faculty resources**

The new major (with two emphases, Natural Products and Analytical) will require the creation of 6 new courses, two with labs, and the addition of one new full-time faculty member. Although we believe this new major will be popular, we are aware that the new major may not become sustainable. Given this reality, we propose to hire Visiting Assistant Professors or teaching postdocs for four years during the development, followed by a tenure-track assistant professor if the major does indeed meet minimum requirements for being sustainable. The new major would build on many of the Department of Biology and Chemistry’s existing curricula, and use many of the same support courses majors in Biology and Chemistry already are required to take, including courses in Physics and Math.

#### **One new full-time Faculty**

**Visiting Assistant Professor or Teaching Postdoctoral student (Year 1 – Year 4)**

The VAP or postdoc will be a Ph.D.-level instructor hired after a national search to complement expertise that exists in the departments to promote the development of the needed coursework. This person may have expertise in Chemistry, Biology or Biochemistry, ideally with agriculture experience.

### **New TT faculty in Cannabis Biology and Chemistry (Starting Year 5)**

#### **One additional Graduate TA position**

With additional students, there will be upward pressure on enrollment in entry-level Chemistry and Biology courses. An additional GTA position will be required to teach anticipated new sections of these labs.

#### **9. Library resources**

None

#### **10. Facilities, equipment, and technology**

##### **This new major will build on existing curriculum**

The new major (with two emphases, Natural Products and Analytical) only requires the creation of **four** new courses, **two** with associated labs, and the addition of one new full-time faculty member. The new major would build on many of the Department of Chemistry and Biology's existing curriculum and existing faculty, and use many of the same support courses majors in Biology and Chemistry already are required to take, including courses in Physics and Math.

##### **This new major will build on the existing infrastructure currently in place as well as upgrades to the greenhouse funded through the Institute of Cannabis Research (ICR)**

Facilities in Chemistry and Biology are good and have enough capacity to absorb the additional students from the new major as well as the additional full-time faculty member and their associated research. The greenhouse infrastructure is being upgraded and expanded with funding from the ICR to enhance the capacity for additional research and teaching involving industrial hemp (cannabis).

##### **Supplies**

In order to support this new major, we have requested funding for supplies for the labs and greenhouse which are not covered in current departmental operating budgets.

##### **Recruitment**

We have also requested limited funding to support targeted recruiting (mailings, school visits, etc.) of new freshman students during the first three years of this new program.

##### **Course Redevelopment**

In order to bring cannabis-specific elements into existing courses, funding is requested to help redevelop existing courses to incorporate content toward this more targeted degree program. Portions of Biol 413/L (Plant Physiology), Biol 465 (Environmental Toxicology), Chem 317/L

(Quantitative Analysis), and 419/L (Instrumental Analysis) along with other changes that may be proposed by faculty for other courses may have opportunities for focused redevelopment.

### **11. Potential Collaborations**

Because the implementation and growth of industrial hemp and the cannabis industry in the region, significant potential for collaborations are available. Within the CSU-System, the Institute of Cannabis Research (ICR) which is funded by the state of Colorado and administered through CSU-Pueblo, provides a wealth of contacts and interest for the new program at the state level.

More regional collaboration will occur through the seminar series and curriculum development. Collaborators from the CSU-Extension Office at the Arkansas Valley Research Center, Centennial Seeds, and the Industrial Hemp Research Foundation (IHRF) have already collaborated with members of the chemistry and biology departments on a USDA grant submission around industrial hemp.

Additionally, because many of the students in this new major will likely be working in industry, collaborations with other programs for minors or elective courses are expected. The College of Science and Mathematics at CSU-Pueblo and the Hasan School of Business have new 2+2 agreements with CSU Ft. Collins in Horticultural Science and Soil and Crop Science, and Agricultural Business, respectively. Development of these agreements also encourages the growth of online agriculture and business courses that are expected to be available for students in this new major as well.

**12. Budget**

**Cannabis Biology and Chemistry Major**

**Budget**

			Year 1	Year 2	Year 3	Year 4	Year 5	Totals
			2020	2021	2022	2023	2024	
<b>Personnel</b>								
Name (last, first)	role							
TBA	Visiting Assistant	salary	\$45,000	\$46,350	\$47,741	\$49,173		\$188,264
		FB	\$14,535	\$14,971	\$15,420	\$15,883		\$60,809
TBA	TT Assistant Professor	salary					\$55,000	\$55,000
		FB					\$17,765	\$17,765
Graduate Student	GTA	tuition rebate	\$2,224	\$2,224	\$2,224	\$2,224	\$2,224	\$11,120
		stipend	\$9,700	\$9,700	\$9,700	\$9,700	\$9,700	\$48,500
		FB	\$146	\$146	\$146	\$146	\$146	\$728
		<b>subtotals</b>	<b>\$71,605</b>	<b>\$73,391</b>	<b>\$75,231</b>	<b>\$77,125</b>	<b>\$84,835</b>	<b>\$382,186</b>
<b>Supplies/Equipment/Remodel</b>								
Operating/Supplies			\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$30,000
Course Redevelopment			\$3,000	\$3,000	\$3,000			\$9,000
		<b>subtotals</b>	<b>\$9,000</b>	<b>\$9,000</b>	<b>\$9,000</b>	<b>\$6,000</b>	<b>\$6,000</b>	<b>\$39,000</b>
<b>Other</b>								
recruitment costs			\$2,000	\$2,000	\$2,000			\$6,000
		<b>subtotals</b>	<b>\$2,000</b>	<b>\$2,000</b>	<b>\$2,000</b>			<b>\$6,000</b>

New Expenses		\$82,605	\$84,391	\$86,231	\$83,125	\$90,835	\$427,186
Projected New Student Enrollment		5	10	30	45	60	
Tuition and fees/cr hr		\$348.16	\$358.60	\$369.36	\$380.44	\$391.86	
Projected Enrollment Revenue		\$26,112	\$53,791	\$166,213	\$256,800	\$352,671	\$855,587
Net Program New Revenue		(\$56,493)	(\$30,600)	\$79,982	\$173,674	\$261,837	\$428,401

**Biology and Chemistry  
CSU – Pueblo**

**Name of Major/Program:** Cannabis Biology and Chemistry

**Degree type:** BS

**Recommended CIP Code:** 30.1801 Natural Sciences

**Date of Approval by the Board of Governors:** December 6, 2019

**# of Credit Hours:** 120

**Offered as 100% Distance/Online Only:** no

**Brief Overview of Proposed Program**

We propose to create a new major housed in the Department of Chemistry at CSU-Pueblo entitled Cannabis Biology and Chemistry. The course work envisioned in this proposal is primarily physical and natural science courses in chemistry and biology with supporting coursework in math, physics, and appropriate general education offerings.

Although housed in the Department of Chemistry, the program is truly interdisciplinary in nature, requiring substantial coursework in Biology and Chemistry, and CSU-Pueblo is uniquely positioned to be offering this new degree:

- Our location in southern Colorado with a strong agricultural expertise in producing cannabis and cannabis products including industrial hemp provides a wealth of expertise that can be drawn on to ensure the program is relevant and needed for the industry.
- A Cannabis Biology and Chemistry program at a Hispanic-Serving Institution like CSU-Pueblo would help to address the nationwide demand for diversity in employment within the industrial hemp and cannabis industries.
- The Institute of Cannabis Research (ICR) established at CSU-Pueblo by the state of Colorado in 2016 has enhanced the capability and capacity of CSU-Pueblo faculty expertise in cannabis significantly. The international ICR Conference hosted on campus every year has established CSU-Pueblo as a major contributor to cannabis science on a worldwide platform, including the launch of a Springer hosted Journal of Cannabis Research. The focus strictly on research has established CSU-Pueblo as an unbiased institution from which a science-based major should be well received.
- The Departments of Chemistry and Biology already offer most of the courses needed for this major, and only requires the creation of four new upper division courses to offer a degree program with two options, a natural products track (biology) or an analytical track (chemistry).

- Students will benefit from the rigorous degree by earning a chemistry minor in either track, or a biology minor in the natural products track.
- The College of Science and Mathematics has a track record of establishing a viable new program using the same methodology as what is proposed here when the Wildlife and Natural Resources major was officially started in fall of 2018 and already has over 60 majors.

### **Brief Statement of Need**

We believe that the demand for this new major is strong, based on:

- A market analysis by EAB and numbers from the Bureau of Labor Statistics (BLS)
- Demand from current hemp growers, product producers and distributors
- Discussions with current students
- Analysis of a similar program at Northern Michigan University
- Interviews with regional medical and governmental entities

The new major is a pro-active response to a rapidly changing national scene regarding the cannabis plant. The genus *Cannabis* includes marijuana (often *Cannabis indica*), which contains a psychoactive ingredient tetrahydrocannabinol (THC) at concentrations above 0.3% by weight, and hemp (often *Cannabis sativa*), which contains less than 0.3% THC and is not psychoactive. Marijuana is classified as a Schedule I substance at the national level by the Drug Enforcement Administration indicating no accepted medical use and a high potential for abuse. Agricultural Hemp was reclassified as a farm crop with the signing of the 2018 Farm Act on December 22, 2018. This allows it to be legally grown as an agricultural crop used for food, fuel, and other products. Prior to this signing, however, hemp was also mostly classified as a Schedule I substance, meaning little legal research has been done on the plant.

Laws and regulations related to cannabis are very fluid and have dramatically changed in a relatively short period of time. In 1996, California became the first state to legalize medical cannabis and since then 32 more states have followed suit with 14 others that have legalized cannabis for medical use with limited THC content. In 2012 Colorado and Washington became the first two states to legalize cannabis for recreational use and now 9 states and the District of Columbia allow it, including California. About 1 in 5 Americans currently live in states where cannabis is recreationally legal.

In addition, according to the Colorado Department of Revenue, sales of marijuana in Colorado have been increasing each year with \$680 million in 2014 to \$5.9 billion in 2018. CNN reported that there were around \$9 billion in sales in the cannabis industry in 2017, about \$11 billion in 2018, and sales are projected to increase to \$21 billion by 2021. Much of this is likely grown, processed, sold and consumed by people with little in the way of science understanding, an important consideration for public health.

The need for higher education to respond to the rapidly changing landscape surrounding cannabis is reflected in this proposal. Educating students who are capable of understanding cannabis science is required for the industry in all its aspects to be effective and safe for the consumer. Although much of the degree is based on currently offered courses, this background is necessary to delve

into the more advanced topics explored in the proposed new courses. Much like forensic science, cannabis science is basic science applied to a set of specific topics and students with this degree will be employable in any number of science positions and could pursue further education in chemistry, biology or any number of professional fields and would not be limited to just the cannabis industry.

A market demand analysis for a bachelor's-level medicinal plant chemistry program was completed in 2018 by EAB. Medicinal Plant Chemistry is the closest match to what is currently a completely unique major proposal. The report estimated demand for job postings that included plant sciences, botany/plant biology, with skills in chemistry or agronomy and farming. Regional demand was reported to have increased 64% since 2013 and the BLS projects employment to increase seven percent from 2016 to 2026, nine percent for soil and plant scientists. According to the report, these predictions align with or surpass the projected employment growth of 7.5 percent across all occupations over the same time period. This report was completed prior to the reclassification of industrial hemp by the Farm Act in 2018. This reclassification should enhance the demand for the major over what was reported in the EAB analysis.

An informal survey of Biology 100 students (Principles of Biology, a non-major general education course) during the spring 2019 semester indicated a strong interest in a Cannabis Biology and Chemistry major.

This degree is highly interdisciplinary and gives students a solid foundation in both chemistry and biology. As a result, students will be able to be competitive in a wide variety of businesses outside of the cannabis industry.

The Bureau of Labor Statistics Occupational Outlook for students completing the degree include the following

<https://www.bls.gov/ooh/life-physical-and-social-science/home.htm>):

Occupation	Job Summary	2018 Median Pay	Projected Growth 2016-2026
Agricultural and Food Scientists	Agricultural and food scientists research ways to improve the efficiency and safety of agricultural establishments and products.	\$64,020	7% (as fast as average)
Biological Technicians	Biological technicians help biological and medical scientists conduct laboratory tests and experiments.	\$44,500	10% (faster than average)
Biochemists and Biophysicists	Biochemists and biophysicists study the chemical and physical principles of living things and of biological processes, such as cell development, growth, heredity, and disease.	\$93,280	11% (faster than average)
Chemical Technicians	Chemical technicians use special instruments and techniques to help chemists and chemical engineers research, develop, produce, and test chemical products and processes.	\$48,160	4% (slower than average)

Chemists and Materials Scientists	Chemists and materials scientists study substances at the atomic and molecular levels and analyze the ways in which the substances interact with one another. They use their knowledge to develop new and improved products and to test the quality of manufactured goods.	\$78,330	7% (as fast as average)
Environmental Scientists and Specialists	Environmental scientists and specialists use their knowledge of the natural sciences to protect the environment and human health. They may clean up polluted areas, advise policymakers, or work with industry to reduce waste.	\$71,130	11% (faster than average)

**Brief Statement of Duplication/Similar Programs in the State**

Within Colorado, there are no other higher education institutions that offer a major in Cannabis Biology and Chemistry or something similar. Other than select faculty whose research may involve hemp or cannabis, the following are other course or program offerings that may be related to the proposed program in Colorado.

1. Colorado State University – Pueblo

Cannabis Studies minor—a 22-credit program of study designed for students seeking to complement their major program of study in Social Work, Sociology, History, Political Science or other programs. The proposed major is science-based and is supplementary to the existing minor program.

2. Adams State

Industrial Hemp Initiative—Aim is to create a viable hemp seed program and to develop a large-scale, hemp-based economy in the San Luis Valley. Adams is partnering with the CO Dept of Agriculture and Denver-based International Hemp Solutions and Bija Hemp but no coursework or programmatic offerings are mentioned.

3. University of Denver

Offers a couple of courses dealing with cannabis including Cannabis Journalism and Representing the Marijuana Client offered through their Sturm College of Law.



# CSU-Pueblo proposed Major in Cannabis Biology and Chemistry

1

1/24/20

Dr. David Lehmpuhl

Dean, College of Science and Mathematics

## CBC Major

- The degree is being developed using university resources (not from the ICR) in the College of Science and Math
- Much of the degree is based off of currently offered courses
- This background is required to understand advanced topics in the proposed new courses
- Cannabis science is an applied science, much like forensic science
- Students will be employable in a number of science positions and could pursue further education in chemistry, biology or a number of professional fields

# CBC Student Learning Outcomes

3

- ▶ Students will understand basic chemical and biological principles applied in these fields and how those principles can be applied to the emerging field of cannabis science.
- ▶ Students will understand cannabis physiology and growth, the pharmacological implications, and the practical applications for the industry.
- ▶ Students will use contemporary instruments and techniques for studying plant biological and chemical processes.
- ▶ Students will develop communication and interpersonal skills to enhance their working relations with co-workers, other professionals, the public and non-governmental organizations.
- ▶ Students will develop skills in reading and interpreting the scientific literature and in presenting a synthesis of it accurately in oral and written form.
- ▶ Students will demonstrate critical thinking and problem solving skills using experimental design and the scientific process.

# CBC Major Curriculum

- ▶ Two emphasis areas, Natural Products or Analytical
  - ▶ Natural Products emphasis contains more coursework in genetics, neurobiology and biochemistry
  - ▶ Analytical emphasis contains more coursework in analytical chemistry
- ▶ Students in the major will work with low-THC hemp but will not work with marijuana (cannabis with THC concentration  $> 0.3\%$ ) due to its federally illegal status
- ▶ Both emphasis areas are limited to 120 credit hours and include the required general education credits

# CBC Major Curriculum

- Both emphasis areas have significant elective credit room to be able to add a minor or specialized courses outside of the basic sciences.
- One example could include the currently offered Cannabis Studies Minor emphasizing the social science, legal and political policies regarding cannabis.
- Other supplemental coursework that might be relevant to CBC majors include a business minor or psychology minor.
- As demand and hence resources increase, additional breadth of courses may be offered as this program is expected to evolve over time.

# CBC Core (46 credits)

- ▶ BIOL 181/181L – College Biology I/Lab (4 credits)
- ▶ BIOL 182/182L – College Biology II/Lab (4 credits)
- ▶ BIOL 201/201L – Botany/Lab (4 credits)
- ▶ BIOL 465 – Environmental Toxicology (3 credits)
- ▶ CHEM 121/L – General Chemistry I/Lab (5 credits)
- ▶ CHEM 122/L – General Chemistry II/Lab (5 credits)
- ▶ CHEM 301/L – Organic Chemistry I/Lab (5 credits)
- ▶ CHEM 302/L – Organic Chemistry II/Lab (5 credits)
- ▶ CHEM 311—Intro to Biochemistry (3 credits)
- ▶ **CBC 413/L\* -- Cannabis Physiology and Growth (4 credits)**
- ▶ **CBC 463\*—Medicinal Chemistry and Pharmacology (3 credits)**
- ▶ **CBC 493\* – Seminar (1 credit)**

# Natural Products Emphasis

- ▶ Core
- ▶ BIOL 171 – First Year Seminar (1 credit)
- ▶ BIOL 350 -- Mendelian and Pop Genetics (2 credits)
- ▶ BIOL 351 – Molecular Biology and Genetics (2 credits)
- ▶ BIOL 422 – Neurobiology (3 credits)
- ▶ **CBC 401\* -- Medicinal Plant Biochemistry (3 credits)**
- ▶ Math and Physics Support courses (10-13 credits)
- ▶ General Education courses (24 credits)
- ▶ Elective courses 24-30 credits

# Analytical Emphasis

- ▶ Core
- ▶ CHEM 170/370 – Academic Orientation/Enrichment (1 credit)
- ▶ CHEM 317/L – Quantitative Analysis/Lab (5 credits)
- ▶ CHEM 322 – Physical Chemistry II (3 credits)
- ▶ CHEM 419/L – Instrumental Analysis/Lab (5 credits)
- ▶ **CBC 422/L\* -- Natural Products Extraction and Analysis/Lab (4 credits)**
- ▶ Math and physics support courses (16-18 credits)
- ▶ General education courses (24 credits)
- ▶ Elective courses (12-18 credits)

# CBC 401 Medicinal Plant Biochemistry

- ▶ Week 1 Intro to Natural Products and Terpenes
- ▶ Week 2 Terpene Biosynthesis
- ▶ Week 3 Intro to Carotenoids and Metabolism
- ▶ Week 4 Carotenoid Metabolism cont'd Exam I
- ▶ Week 5 Phenylpropanoids intro and metabolism
- ▶ Week 6 Phenylpropanoid metabolism cont'd
- ▶ Week 7 Benzylisoquinoline alkaloids intro and metabolism
- ▶ Week 8 Benzylisoquinoline alkaloids metabolism cont'd Exam II
- ▶ Week 9 Monoterpenoid indole alkaloids intro and metabolism
- ▶ Week 10 Monoterpenoid indole alkaloids metabolism cont'd
- ▶ Week 11 Tropane and Purine alkaloids Exam III
- ▶ Week 12 Tropane and Purine alkaloids cont'd
- ▶ Week 13 Glucosinolates
- ▶ Week 14 Cyanogenic glucosides

# CBC 413 Cannabis Physiology

10

Week	Course Topics
1	Classification of <i>Cannabis sativa</i> L. in Relation to Agricultural, Biotechnological, Medical and Recreational Utilization
2	<i>Cannabis sativa</i> L.: Botany and Horticulture
3	Morpho-Anatomy of Marijuana ( <i>Cannabis sativa</i> L.)
4	Chemical and Morphological Phenotypes in Breeding of <i>Cannabis sativa</i> L.
5	Phytocannabinoids of Cannabis and Methods of Analysis
6	Cannabinoids: Biosynthesis and Biotechnological Applications
7	The Pharmacology and Therapeutic Potential of Plant Cannabinoids
8	Cannabinoid CB2 Receptor Mechanism of <i>Cannabis sativa</i> L.
9	Therapeutic uses of Cannabidiol in human disorders
10	Micropropagation of <i>Cannabis sativa</i> L.
11	Hairy Root Culture as a Biotechnological Tool in <i>C. sativa</i>
12	Genomics and Molecular Markers in <i>Cannabis sativa</i> L.
13	Chemical and Physical Elicitation for Enhanced Cannabinoid Production in Cannabis
14	Contaminants of Concern in Cannabis: Microbes, Heavy Metals and Pesticides
15	Final Research Presentation

# CBC 413L Cannabis Physiology Lab

11

<b>Week</b>	<b>Labs</b>
1	[Lab 1] Course Introduction, Safety, Research Topic Introduction (CBD animal cell testing)
2	[Lab 2] Hemp plant anatomy & morphology
3	[Lab 3] Hemp micropropagation
4	[Lab 4] Sterile technique and eukaryotic cell preparation
5	[Lab 5] CBD testing on eukaryotic cell lines (Part I: Cell handling and propagation)
6	[Lab 6] CBD testing on eukaryotic cell lines (Part II: Dosage optimization and administration)
7	[Lab 7] CBD testing on eukaryotic cell lines (Part III: Confocal microscope-assisted morphological monitoring)
8	[Lab 8] CBD testing on eukaryotic cell lines (Flow cytometry, data collection and statistical analysis)
9	[Lab 9] Molecular analysis on CBD treated eukaryotic cell lines Part I: Total RNA extraction
10	[Lab 10] Molecular analysis on CBD treated eukaryotic cell lines Part II: Complementary DNA (cDNA) synthesis
11	[Lab 11] Molecular analysis on CBD treated eukaryotic cell lines Part III: Reverse Transcriptase-Polymerase Chain Reaction (RT-PCR)
12	[Lab 12] Molecular analysis on CBD treated eukaryotic cell lines Part IV: Gel-electrophoresis
13	[Lab 13] Hemp farm and industrial sector tour
14	[Lab 14] Research or Business proposal presentation

# CBC 422 Natural Products Extraction and Analysis

12

Week	Topics
1	Introduction to NPs, NPs chemistry, and applications of NPs.
2	Alkaloids, flavonoids, terpenoids, glycoside, amino acids, proteins, carbohydrates, etc.
3	Alkaloids, flavonoids, terpenoids, glycoside, amino acids, proteins, carbohydrates, etc.
4	Introduction to extractions and traditional solvent extractions methods
5	Steam Distillation + Supercritical Fluid Extraction
6	Supercritical Fluid Extraction (cont'd) + Pressurized Liquid Extraction (SFE and PLE cannabinoids)
7	Solid Phase Extraction
8	IR, UV-Vis, and NMR
9	Column chromatography + GC (cannabinoid quantification – DEA and CDA)
10	GC/MS, HPLC, UHPLC, LC/MS (comparison of GC and LC analysis of cannabinoids)
11	MS/MS, QQQ, QToF, and Orbitrap
12	Solvent partition, precipitation, sublimation, crystallization
13	Fractional distillation and flash chromatography
14	Flash chromatography

# CBC 422L Natural Products Extraction & Analysis Lab

13

Week	Lab topics
1	Lab safety, orientation, and instrument review
2	Extraction of thymol and citral from thyme and lemongrass, respectively. (steam distillation, liquid-liquid extraction, FTIR, TLC-MS)
3	Total THC in industrial hemp – CDA/DEA methodology (GC) vs. HPLC
4	Total THC in industrial hemp – CDA/DEA methodology (GC) vs. HPLC
5	Extraction and Isolation of Caffeine from Coffee Beans
6	Extraction and Isolation of Caffeine from Coffee Beans (cont'd)
7	Flash Chromatography
8	Comparative Extraction (UNODC vs PLE) and Analysis of Cannabinoids in Industrial Hemp
9	Comparative Extraction (UNODC vs PLE) and Analysis of Cannabinoids in Industrial Hemp (cont'd)
10	Supercritical CO <sub>2</sub>
11	Extraction and Analysis of select Terpenes in Industrial Hemp
12	Extraction and Analysis of select Terpenes in Industrial Hemp (cont'd)
13	Lab Exercise of Own Design
14	Lab Exercise of Own Design

# CBC 463 Medicinal Chemistry and Pharmacology

- Weeks 1-3 Pharmaceutical chemistry, functional groups, pharmacological targets, ionization of bioactive molecules, and principles of solubility and lipophilicity
- Weeks 4-5 Delivery, transport across biological barriers, absorption, delivery systems
- Weeks 6-7 Distribution, excretion, metabolism, pharmacokinetic concepts
- Weeks 8-10 Ligands and receptors, mechanisms of action, dose-response relationships
- Weeks 11-13 Therapeutic variability, drug interactions, pharmacogenomics
- Weeks 14-15 Biopharmaceuticals, bioactive materials discovery and drug approval

# CBC 493 Seminar

- ▶ As a result of the course students are expected to gain the following:
  - ▶ Comprehensive knowledge of the literature;
  - ▶ Ability to synthesize from the literature;
  - ▶ Technical presentation skills
  - ▶ Acquisition of skills required to read and interpret articles from current, refereed publications.
  - ▶ Ability to apply chemical and biological concepts in presenting information.
- ▶ Students must compile a summary of the existing body of knowledge in a specific area gleaned from the current literature.
- ▶ Students then present a 40-45 minute in-depth public lecture on a cannabis topic.

**THE BOARD OF GOVERNORS OF THE  
COLORADO STATE UNIVERSITY SYSTEM  
BOARD MEETING  
Colorado State University System Offices, Denver, Colorado  
December 6, 2019**

**CALL TO ORDER**

Chair Tuor called the meeting to order at 9:00 a.m.

**ROLL**

**Governors present:** Nancy Tuor, Chair; Jane Robbe Rhodes, Vice Chair; Kim Jordan, Treasurer; Dean Singleton, Secretary; Russell DeSalvo; Steven Gabel; William Mosher; D. Rico Munn; Armando Valdez; Kacie Adair, Student Representative, CSU-Pueblo; Ben Amundson, Student Representative, CSU; Harriet Austin, Faculty Representative, CSU-Global Campus; Stephanie Clemmons, CSU Faculty Representative; Matthew Cranswick, Faculty Representative, CSU-Pueblo; Nicole Hulet, CSU-Global Student Representative

**Administrators present:** Tony Frank, Chancellor, CSU System; Amy Parsons, Executive Vice Chancellor, CSU System; Joyce McConnell, President, CSU; Timothy Mottet, President, CSU-Pueblo; Becky Takeda-Tinker, President, CSU-Global Campus; Jason Johnson, General Counsel, CSU System; Lynn Johnson, Deputy Chief Financial Officer, CSU System, and Vice President of Operations, CSU; Rick Miranda, Chief Academic Officer, CSU System, and Provost and Executive Vice President, CSU; Susy Serrano, Director of Internal Auditing, CSU System; Henry Sobanet, Chief Financial Officer, CSU System

**CSU System Staff present:** Melanie Geary, Executive Assistant; Adam Fedrid, IT Manager; Allen Sneesby, IT Technician; Sharon Teufel, Executive Assistant to the General Counsel

**Staff and Guests present:** Mohamed Abdelrahman, Provost, CSU-Pueblo; Aaron Alexander, Dept. Chair and Associate Professor, Art Dept., CSU-Pueblo; Johnna Doyle, Deputy General Counsel, CSU-Pueblo; Karen Ferguson, Provost and Vice President of Strategic Innovations, CSU-Global; Margaret Henry, Treasurer, CSU System; Donna Souder Hodge, Executive Director of Organizational Development, CSU-Pueblo; Christin Holliday, Vice President, Enrollment Management and Student Affairs, CSU-Pueblo; Mike Hooker, Director, Public Relations, CSU; Greg Hoye, Executive Director for Marketing and Community Relations, CSU-Pueblo; Blanche Hughes, Vice President of Student Affairs, CSU; Pam Jackson, Interim Vice President for External Relations, CSU; Jannine Mohr, Deputy General Counsel, CSU; Cara Neth, Director of Executive Communications, CSU System; Alan Rudolph, Vice President for Research, CSU; Jen Smith, Assistant Director of Social Media, Chancellor's Office, CSU; Karl Spiecker, Vice President for Finance and Administration, CSU-Pueblo; Leticia Steffen, Associate Dean, CHASS, and Mass Communications Professor, CSU-Pueblo; Lesley Taylor, Vice President for Enrollment and Access, CSU; Niki Toussaint, Chief of Staff, CSU-Pueblo

**ACADEMIC AND STUDENT AFFAIRS COMMITTEE**

Committee Chair Singleton convened the committee meeting and asked Dr. Miranda to start with the new degree programs.

*New Academic Degree Programs:* Dr. Miranda reviewed the following new degree programs: CSU, Master of Sport Management; CSU-Global, Bachelor of Science in Nursing Completion Program; CSU-Global, Master of Science in Nursing; CSU-Global, Post Baccalaureate Alternative Licensure Program; CSU-Pueblo, Bachelor of Applied Science in Health Science; CSU-Pueblo, Bachelor of Science in Cannabis Biology and Chemistry; CSU-Pueblo, Bachelor of Science in Middle School Mathematics Education; and CSU-Pueblo, Master of Science in Nurse Manager and Leader Program. Dr. Miranda then reviewed the two proposed retitled degree programs for CSU-Pueblo as follows: Bachelor of Science in Business Administration in Marketing, and Master of Science in Mechatronics Engineering. Approval of the new and retitled degree programs is on the consent agenda.

*CSU Faculty Manual Changes:* Dr. Miranda described the proposed revisions to the CSU faculty manual for the following sections: Section C.2.3.1.A; Section D.5.3.J ; Section D.7.18; Section E.2.1; Section F.3.13; Section K; Section K.3.1; Section K.3.2; and Section K.12.4. Approval of the revisions is on the consent agenda.

*CSU and CSU-Pueblo AY 2020-21 Sabbatical Requests:* Dr. Miranda explained how the sabbatical requests undergo a thorough campus review and approval process.

*Academic Calendars:* The CSU academic calendar included in the meeting materials is for Fall 2024-Summer 2026 and AY 2020-21 and 2021-22 for CSU-Pueblo. Approval is on the consent agenda.

*Program Review Summary:* Dr. Miranda remarked on the review process that is undertaken on the CSU and CSU-Pueblo campuses. CSU-Global reviews every program annually and review process will be provided in the next meeting book.

*Approval of CSU-Global Revised Vision and Mission:* Dr. Ferguson reported that, during the strategic planning process, a staff survey to examine the vision and mission was distributed. A task force was then assembled for the revisions that are tied to the strategic plan. She reviewed the revisions that include changing the terminology of non-traditional learner to modern learner. **Motion/Action:** The motion was made, seconded, and passed unanimously.

*Approval of the CSU-Pueblo Renaming of the Mass Communications and Center for New Media Dept. within the College of Humanities, Arts, and Social Sciences:* Dr. Miranda summarized the proposed renaming action item. **Motion/Action:** The motion was made, seconded, and passed unanimously.

*Student Success and Enrollment Reports:* Dr. Miranda reviewed the demographics, enrollment trends, and student success data for CSU. Ms. Holliday reviewed the CSU-Pueblo report and noted the positive retention results. Dr. Ferguson explained the CSU-Global differences in the report from the other campuses due to monthly starts.

*Online Offerings System-wide Report:* Dr. Frank explained the report was prepared based on questions at the prior meeting. The report includes data on demographics, costs, degrees by institution, completion rates, and average number of students.

## **CSU-PUEBLO REPORTS**

*Student Report:* Governor Adair highlighted from the written report a meeting with Pueblo County

Commissioner Ortiz to discuss scholarships; the Love CSU-Pueblo Give Day; She reported the CSU-Pueblo football team secured a home playoff game for which the ASG purchased 300 tickets for students and the two-day Winter Wonderland that includes the Pueblo community began the previous evening.

*Faculty Report:* Governor Cranswick reviewed from the written report several recent faculty achievements; the fall student research symposium; the new academic degree programs; and the faculty forums.

*President's Report:* Dr. Mottet commented on the success of the Winter Wonderland and a recent holiday tree lighting event that engaged both the campus and local community. He explained the written report provides nine different key takeaways and described how three groups of faculty have come together to create a School of Creativity and Practice that is the first manifestation of the visioning process which reflects the transformation the campus is undergoing. He then introduced Drs. Steven and Alexander who provided an overview of this new project.

## **CSU-GLOBAL REPORTS**

*Student Report:* Governor Hulet commented on the recent newsletter that emphasizes time management for students and outlines the disabilities services website. She noted CSU-Global is recognized as one of the top ten affordable Master's programs in project management and ranks in the top five for best value in online school. The fall commencement will be held the next day with approximately 2,000 students graduating.

*Faculty Report:* Governor Austin shared recent faculty and student awards and accomplishments. She highlighted the approval received to start a chapter of the National Society of Leadership and Success with a one year grant to cover the costs; the Master of Science Executive Express Path that has good retention, success, and growth; the new opportunities for students in the Business Management program to join two national honor societies; and the partnership with Pickens Technical College to offer six online prerequisite courses for students planning to enter a nursing program.

*President's Report:* Dr. Takeda-Tinker invited the Board to participate in the virtual commencement that will take place on December 7<sup>th</sup>. An update was provided on the digital and structural architecture master's certificate program that is being expanded into an apprenticeship program which will be presented at the February meeting. CSU-Global has been awarded a contract through the Governor's office for operational leadership training for governing boards that utilizes best practices and is directed at learning outcomes specified by the Governor's office. Dr. Takeda-Tinker then summarized the alternative teacher licensure program that will be approved on the consent agenda.

## **CHANCELLOR' S REPORT**

Dr. Frank highlighted from the written report the Together We Grow partnership; the National Western Center (NWC) work being done in preparation for the construction that will begin on March 9, 2020; and the listening tours undertaken by Ms. McConnell and himself across Colorado.

*Strategic Mapping:* Ms. Parsons reported Chair Tuor and Governor Valdez participated in a trip with alumni and donors to the CSU Todos Santos Center. Chair Tuor and Governor Valdez commented on their experiences at the campus. Ms. Parsons provided updates on the Together We Grow consortium; the recent Water in the West symposium; and participation of CSUS staff in NWC activities with the

neighboring communities. She described the building concept designs for the three CSU buildings at the NWC and revealed the new Spur brand to identify CSU at the NWC. Ms. Parsons shared details on the proposed new CSUS logo.

#### **APPROVAL OF THE CONSENT AGENDA**

Chair Tuor reviewed list of the consent agenda items and asked for a motion to approve. **Motion/Action:** The motion was made, seconded, and passed unanimously.

Chair Tuor asked for a motion to approve the naming related to a CSU research and education building within the Warner College of Natural Resources. **Motion/Action:** Governor Valdez moved; Governor Singleton seconded; and the motion carried unanimously.

#### **RECOGNITION OF OUTGOING BOARD MEMBERS**

Governors Mosher and Munn commented on their experiences and the challenges for the Board, and expressed appreciation for the opportunity to serve. On behalf of the Board, Chair Tuor thanked Governors Mosher and Munn for their service.

In light of her upcoming retirement, General Counsel Johnson thanked Sharon Teufel for her years of work for the Office of the General Counsel.

With no further business to come before the Board, the meeting was adjourned at 11:45 a.m.

**ICR Governing Board Meeting**  
**November 18, 2019 12:00 – 3:45 pm**  
**Occhiato Student Center**  
**Room: Great Plains (006)**  
**Wi-Fi SSID: Conference**  
**Password: CSUPV1s1on2018!**

**Revised In-Person Meeting Schedule**

Working Lunch 12:00 – 12:30 pm – Occhiato Student Center  
Meeting 12:30 – 3:30 pm – Occhiato Student Center  
Reception 3:45 – 5:45 pm – 6<sup>th</sup> Floor of the University Library

**Meeting Agenda:**

- I. Welcome and brief introductions during working lunch (12:15-12:30pm) Dr. Chad Kinney
  - Attendees stated their name and position
  
- II. Approve minutes from 09/20/19 & 11/01/19 (12:30-12:35pm) Nicole Quartiero
  - No revisions requested
  - Motion to approve (with a second) meetings from 09/20/19 & 11/01/19
  - Unanimous vote to approve minutes from 09/20/19 & 11/01/19
  
- III. Open Meeting Laws (12:35-1:05pm) Jacquelynn Fredericks
  - Summary of OML Rules
    - i. Meetings must be open to the public unless they meet the definition of an executive session
    - ii. Any communications between two or more of the committee members to discussion official business is considered a meeting
    - iii. Meetings must be publicly communicated and minutes must be kept and shared; it is recommended that meetings be advertised at least 5 days prior to the meeting.
    - iv. Meeting announcements must include: date, time and location (specific address required).
    - v. Any form of communication is subject to the Colorado Open Records Act including emails and text messages.
    - vi. The ICR Statue lives within the CSU-Pueblo statute.
  - Conflict of Interest Disclosure
    - i. Board members are subject to conflict of interest reporting requirements
    - ii. Board members must disclose any potential conflicts at least one time per year or if a new conflict arises
    - iii. When the board is discussing anything that is a conflict for any member, the member must recuse themselves from the discussion and any voting.
    - iv. Board completed COI form which will be maintained at the state and in the official ICR Records.
  - Questions
    - i. Group asked for clarification on what would constitute a conflict.
    - ii. It was determined that board members who would be submitting a grant proposal for ICR funds would recuse themselves from any related discussions.
    - iii. The Attorney General staff assigned to this board has offered to attend meetings and provide ad hoc feedback/guidance on any questions related to the Open Meeting Law requirements and COI on an ongoing basis
  - Meeting dates and times – ICR Website Nicole Quartiero
    - i. Review of ICR website and where meeting information will be posted and maintained.
    - ii. It was decided that the board would meet every second Friday of the month from 12pm-1pm with 2-3 in person meetings per year.
  - Meeting Minutes – ICR Website

- i. Meeting minutes will be housed on the ICR website as well as emailed to Board members. t.

IV. Governing Board Bylaws and Meeting Structure (1:05-1:25pm)

Dr. Chad Kinney

- Discuss Meeting format and frequency
  - i. The group agreed to meet the second Friday the month from 12pm-1pm
- Review draft Bylaws
- Discuss and take Motions on revisions to the Bylaws
  - i. Bylaws were not discussed in detail, as not all had reviewed in detail and in light of the information shared with respect to the Open meetings Law and Conflict of Interest requirements per the State Attorney General's office.
  - ii. Dr. Hasan requests that the purse opening statement be changed from "oversight" to "oversee"; no additional requests were made at this time.
  - iii. It was recommended by the group that more time be taken to refine the bylaws.
  - iv. It was proposed that a subgroup be formed to manage the refinement of the bylaws to be presented to the larger group at the next meeting. The board approved of this suggestion.
- Identification of subgroup to refine and finalize Bylaws
  - i. The volunteers for the Bylaw subcommittee included: Maureen Leehey, Ann Bennan and Malik Hasan
  - ii. Board members are encouraged to contact the subgroup with any suggested revisions or considerations of the Governing Board Bylaws.

V. Review of HB19-1311 (1:25-1:45pm)

Dr. Cinnamon Bidwell

- Discussion regarding role of Governing Board
  - i. Review of HB19-1311 language with respect to the role of the Board.
  - ii. Some history was given with respect to why certain responsibilities were included.
  - iii. There was discussion regarding the journal of cannabis research as well as its prestige with respect to other academic and medical journals.
  - iv. There was discussion regarding the board's role in reviewing cannabis degree programs that were referred by CCHE. It was agreed that the board needs to come up with a process for this review.
  - v. CSU-Pueblo has proposed a cannabis degree program that was presented to the board. It was agreed that Mr. John Lord would perform a review with some other industry stakeholders and provide feedback to CSU-Pueblo leadership in early December and update the board as needed.
- Discussion regarding the role of the ICR
  - i. Review of HB19-1311 language with respect to the role of the ICR staff.
  - ii. There was a question regarding how the Director is paid and if the host institution should support this expense.
  - iii. There was a question regarding the exclusion of the ICR being responsible for education; during the development of the bill this was a consideration but it was not included in the final version of the bill.

VI. Break (1:45-1:50pm)

VII. Goals and strategy for the ICR (1:50-2:20pm)

Dr. Cinnamon Bidwell

- Long-term strategic goals – Preliminary List Review
  - i. Review of draft goal document
  - ii. Discussion regarding priority of the Board with respect to ICR operations.
  - iii. First priority is to determine what the funding request should be as this will impact upcoming RFA and process.
- Short-term action plan to meet goals
  - i. The board agreed that the ICR needs additional funding to fulfill the mission outlined in the bill with respect to research funding.
  - ii. There was discussion regarding the process for requesting additional funds.

- iii. There was discussion regarding the state limitations with respect to issuing additional funds.
- iv. Some board members felt as though the request should be based on “doubling” the current budget; however, others felt as though the total projected future budget needs should be requested.
- v. Board members provided history on how the current \$1.8M budget was determined with the original bill to create the ICR was passed.
- Appropriateness of Resources to meet goals
  - i. Board agrees that there is currently not enough resources to support the objectives of HB19-1311.
  - ii. Additional ICR funding will be requested through increasing the current state appropriation as well as fundraising efforts.
  - iii. Industry representative John Lord shared the industry companies would be interested in funding research and projects that legitimize cannabis.
  - iv. Other members indicated that careful consideration to perceived conflicts and biases should be given in regards to industry funding to ensure that projects were selected to provide the greatest benefit to public health (risks and benefits of cannabis) and/or economic development of Colorado on the whole.
  - v. It was agreed that fundraising should be used to cover the remainder of the additional budget totals that cannot be supported through the state budget amendment process.
  - vi. It was proposed and agreed upon that a fundraising subcommittee be formed.
  - vii. Volunteers for the fundraising subcommittee include: Sal Pace, John Lord, and Sue Sisley
- Draft initial document
  - i. Draft initial goals and strategy document is an addendum to these minutes; please see following page for details.

VIII. ICR Budget Request (2:20-3:20pm)

- Update on process for requesting an increase in appropriation Dr. Chad Kinney
  - i. Three options were presented: a) have a bill sponsored; b) communicate with bill sponsor (Jonathan Singer) regarding details of why a fiscal note was not included with HB19-1311; request a budget amendment.
  - ii. The board agreed that a budget amendment would be the most efficient way to proceed in the near future.
- Discuss proposed FY21 budget and long-term budgets and budget narrative Dr. Chad Kinney
  - i. Review of additional funding request budget details.
  - ii. Not all members had reviewed the budget narrative details so there were questions regarding staff and their roles/value as well as currently funded projects and the support of the Journal of Cannabis research.
  - iii. There was discussion regarding the level of funding for administrative staff and how that compares with other institutions in the state. It was recommended that an evaluation take place before any staff changes occur.
  - iv. The Board would like more information on the staff, their respective role and the impact of their position. The board would also like additional details with respect to currently funded projects. It was recommended that board members review the budget narrative in detail and send specific questions to Drs. Kinney and Bidwell or inquire at an upcoming meeting.
- Discuss and take Motions on revisions to the budget and narrative Dr. Cinnamon Bidwell
  - i. Board was asked what specific changes they wanted to see in the additional funding request before it was shared with state representatives for further discussion.
  - ii. Board agreed to use current additional funding request budget as a starting point for discussions with the state to gather their feedback regarding feasibility of securing that amount via a budget amendment.
- Plan for finalization and approval of request to be made to JBC
  - i. Drs. Kinney and Bidwell will work through the appropriate channels to inquire about the feasibility of the additional funding request by the JBC.

- ii. Drs. Kinney and Bidwell to provide an update of these discussions/inquiry at the December meeting.

IX. Public Comment (3:20-3:30pm)

- No public comments shared.

X. Adjourn

- Motion to adjourn approved unanimously.



# COLORADO STATE UNIVERSITY SYSTEM

Colorado State University • Colorado State University-Pueblo • CSU-Global Campus

**Johnna Doyle, Deputy General Counsel**

November 18, 2019

To: Institute of Cannabis Research Governing Board  
From: Jacquelynn Rich Fredericks, First Assistant Attorney General  
Skip Spear and Natalie Powell, Senior Assistant Attorneys General  
RE: An Introduction to your Governing Statute

## **THIS DOCUMENT IS SUBJECT TO ATTORNEY-CLIENT PRIVILEGE**

This memorandum is intended to serve as a brief introduction regarding the Institute of Cannabis Research Governing Board's role and responsibilities under Colorado statute. In addition, this correspondence is meant to provide basic background information regarding the general composition of the Governing Board, each member's term length, and clarity around which members may vote and participate during Executive Session(s).

1. The Institute of Cannabis Research ("ICR") is established by statute. *See* §23-31.5-112, C.R.S.
2. The Governing Board ("the Board") is similarly established pursuant to statute and may:
  - Spend the money received from the general assembly for institute personnel, to conduct research, to produce an annual symposium, and or routine facility and administrative costs consistent with federal standards.; and
  - Solicit, accept, expend, and disburse all money collected for the institute...for the purposes of conducting research related to cannabis and to disseminating the results of such research publicly.

*See* §23-31.5-112(4)(a-b), C.R.S.

3. The Board also has the specific power to:

- Oversee the institute and guide its role and mission;
- Advise any Colorado institution of higher education that seeks to develop a cannabis curriculum;
- Provide input to the Colorado commission on higher education on cannabis-related degrees or certifications; and
- Approve the institute's annual budget.

See §23-31.5-112(3)(c-d), and -112(4)(c) C.R.S.

4. The Board has eleven members. See §23-31.5-112(3)(a)(I-IV) and -112(3)(a)(V)(A-B), C.R.S.
  - The seven governor-appointed members serve four-year terms. The first terms have been staggered so that the three industry representatives appointed by the Governor, serve terms through 2021, while the remainder of the appointees will serve through 2023.
  - The remainder of the Board is comprised of the Chancellor of the Colorado State University System, the President of the University of Colorado System, the Executive Director of the Colorado Commission on Higher Education, and the Executive Director of the Department of Public Health and Environment, or each of these persons' respective designees.

Please let me know if I may address any questions relating to this guidance.

*The information and advice contained herein is subject to attorney client privilege and reflects the legal opinions of the particular First Assistant Attorney General and Senior Assistant Attorneys General but is not a formal opinion of the Office of the Attorney General.*



# COLORADO STATE UNIVERSITY SYSTEM

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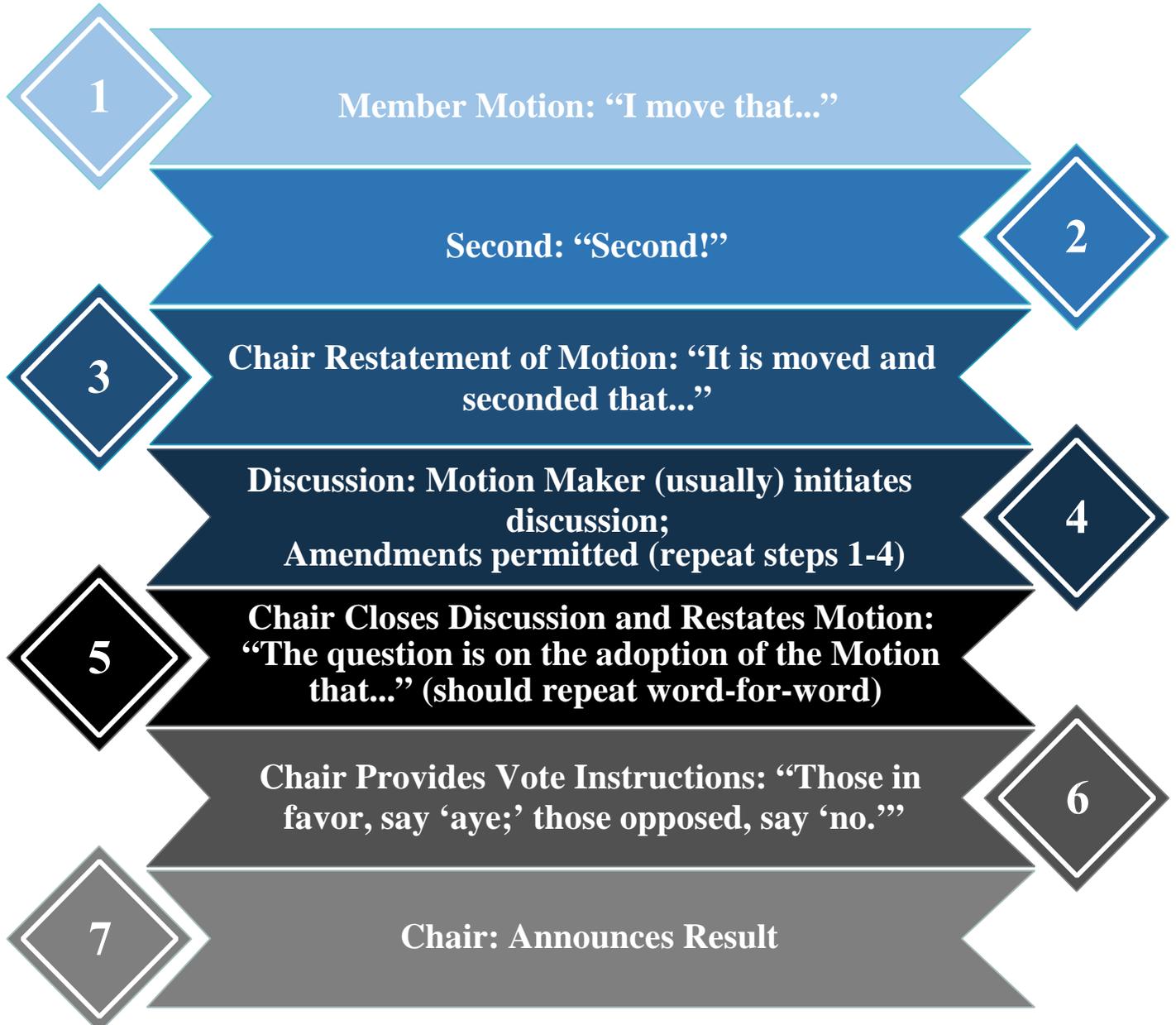
**Johnna Doyle, Deputy General Counsel**

November 18, 2019

To: Institute for Cannabis Research Governing Board

From: Jacquelynn Rich Fredericks, First Assistant Attorney General

RE: Public Meeting Motion(s) Process Flowchart, adapted from Robert's Rules of Order





# COLORADO STATE UNIVERSITY SYSTEM

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**Johnna Doyle, Deputy General Counsel**

November 18, 2019

To: Institute of Cannabis Research Governing Board  
From: Jacquelynn Rich Fredericks,  
First Assistant Attorney General  
Skip Spear and Natalie Powell,  
Senior Assistant Attorneys General  
RE: Conflicts of Interest

## **THIS DOCUMENT IS SUBJECT TO ATTORNEY-CLIENT PRIVILEGE**

This memo should serve as a guide for how members of Institute of Cannabis Research (“ICR”) Governing Board (“the Board”) can successfully discharge their important duties consistent with the oath taken upon their appointment to the Board, while maintaining the public trust and avoiding conflicts of interest.

### **A. Board Duties.**

As a member of the Board, you make many very important decisions on behalf of ICR, indeed, it is your duty to do so. *See* §23-31.5-112, C.R.S. (establishing the Board and its composition and setting forth the Board’s powers and duties). ICR’s Board is a state agency, which imposes upon the Board’s members certain fiduciary duties. *See* §24-18-102(9), C.R.S. (state agency defined) *and* §24-18-108.5, C.R.S. (rules of conduct for members of boards); *but see* §24-18-102(8), C.R.S. (board members who receive no compensation except for per diem are excluded from definition of public officer).

#### **1. Duty of Care.**

The duty of care requires each Board member to (a) be an active participant in the affairs of the ICR at the level of the Board, i.e., an active participant in Board actions and decisions; (b) be reasonably informed; and (c) act in a responsible,

prudent manner. Regular attendance at Board meetings is a basic element of this requirement. The duty of care also requires each Board member to exercise independent judgment with respect to all decisions made by the Board. Each member has an equal responsibility to share in decisions and to use the powers of the Board rationally and lawfully, for the benefit of ICR as a Colorado state institution.

Each Board member must seek, receive, and review the information reasonably needed to make informed decisions. The duty of care standard allows for the fact that members necessarily rely upon information supplied by the Institute's administration and staff. However, a member should not hesitate to ask that the Board be provided additional information if the member believes that the information supplied is insufficient to inform decisions.

A Board member may prudently rely upon information and reports from external sources the member regards as trustworthy, so long as such sources have been prudently selected and the Board member has reasonably relied on the source.

A Board member is not expected to exercise executive responsibility or run the day-to-day business of the Institute. Normally, an individual Board member is not personally responsible for the acts or omissions of the Director or the Director's appointees. However, the duty of care *does* apply to the Board's responsibility for participation in the selection and evaluation of the Director. A Board member who undertakes to act for the Board unilaterally may expose him or herself and the Board to liability by going outside the scope of Board authority and creating an appearance that the Board member possesses authority that he or she does not possess.

A Board member is expected to be knowledgeable of Board policies and procedures, and to provide for their regular review for effectiveness and compliance with applicable state and federal law.

When the Board acts as a body, even if a Board policy, decision, or action proves to be unwise, the members will generally be protected from individual liability if they acted in good faith, with independent and informed judgment, and in the reasonable belief the action was in ICR's best interest as an institution.

## **2. Duty of Loyalty.**

The duty of loyalty requires that a Board member exercise the Board's authority in what he or she reasonably believes to be the best interest of the Institute, as distinct from the Board member's own interest or in the interest of

another entity or person. This duty also requires the Board member to refrain from personal activities, which would injure or take advantage of the institution.

The most obvious and important principle of the duty of loyalty is that a Board member must not use the position to further the member's personal interest. The member's actions and decisions as a Board member must be for the benefit of the organization only.

## **B. Conflicts of Interest.**

When discharging your significant duties and in particular as members of a state public board, it is imperative both that you avoid actual conflicts of interest, as well as, the appearance of conflicts of interest.

### **1. Mandatory conflict avoidance.**

The Legislature has provided some guidance regarding the necessary avoidance of conflicts of interest. To that end, §24-18-101 *et seq.*, C.R.S. sets forth the code of ethics for your public service as a Board member. In particular, pursuant to §24-18-108.5(2), C.R.S., “[a] member of a board ... shall not perform an official act which may have a direct economic benefit on a business or other undertaking in which such member has a direct or substantial financial interest.” An official act is defined as “... any vote, decision, recommendation, approval, disapproval, or other action, including inaction, which involves the use of discretionary authority.” See §24-18-102(7), C.R.S.

The statutory language discussed above uses the mandatory term “shall” to denote that a Board member will not participate in any Board consideration of his or her own business interests. Therefore, at any point wherein a Board member's outside business or financial interests arise in the context of potential action by the Board, the member should recuse himself or herself from the substantive discussion and from any ensuing vote.<sup>1</sup>

The best practice for effecting the recusal, in order to avoid both an actual conflict, as well as the appearance of a conflict, is for the Board member to physically move from the table during consideration of the matter, to the designated physical location where any other nonmember constituent would present a matter for the Board's consideration. An oral recognition of the physical movement of the

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<sup>1</sup> The Board member may vote on the matter only when: (1) their participation is necessary to achieve a quorum or otherwise enable the body to act; and (2) written disclosure of the conflict is made prior to taking the action.

Board member, coupled with clarification that the Board member is now wearing a different hat, so to speak, should also be made for benefit of the electronic record and a corresponding notation included in the Board minutes. Once the discussion related to the Board member's business or financial interest has concluded, and after any necessary vote has occurred, he or she may resume their usual place at the table for consideration of other Board business.

In addition to the above scenarios, the appearance of a conflict of interest, if not an actual conflict, may occur if the close family member (spouse, sibling, parent, or child) of a Board member owns, works for, or otherwise benefits by the operation of, business which is before the Board for its consideration. In such an instance, the best practice would be for the Board member to recuse himself or herself from any vote or other official action, with such recusal or abstention noted for both the oral and written records.

## **2. Non-mandatory, but recommended, conflict avoidance.**

There are numerous additional provisions within Title 24, Article 18, which are not directly applicable to ICR's Board but with which members' voluntarily compliance aids in preservation of the important public trust placed in them. Two such provisions include the prohibition on significant gifts and the safeguarding of information received in the capacity as a Board member.

It is a best practice for Board members to decline to accept any significant gifts or other substantial benefit from persons or entities over which the Board has oversight. *See* 24-18-109(2)(c); *and see* §24-18-104(1)(b), C.R.S. Generally, Board members may accept unsolicited tokens or awards of appreciation, which are of trivial value or which otherwise, have a fair market value of less than \$53.00. *See* §24-18-104(2-3), C.R.S. Although the statutory language regarding a prohibition on receipt of gifts is not directly applicable to State public body Board members, the best practice would be to voluntarily abide by the prohibition that is mandatorily applicable to public employees.

In addition, Board members should also take care to safeguard that information which they receive in confidence pursuant to their service as a member of a public board. Specifically, Board members should not “[d]isclose or use confidential information acquired in the course of his [or her] official duties in order to further ... [their] personal financial interests.” *See* §24-18-104(1)(a), C.R.S. Notably, although this particular provision of Title 24, Article 18 is not mandatory for the Board, there are other authorities which do require members to safeguard material including employee and student information.

### **3. Voluntary disclosure and safe-harbor regarding potential conflicts.**

There is a provision of law that allows a Board member to give notice of a potential conflict of interest and minimize potential liability.

A member of a board ... may, prior to acting in a manner which may impinge on his [or her] fiduciary duty and the public trust, disclose the nature of his [or her] private interest ... all ... shall make the disclosure in writing to the secretary of state, listing the amount of his [or her] financial interest, if any, for the purpose and duration of his services rendered, if any, and the compensation received for the service or such other information as is necessary to describe his [or her] interest. If he [or she] then performs the official act involved, he [or she] shall state for the record the fact and summary nature of the interest disclosed at the time of performing the act.

See §24-18-110, C.R.S. This is the type of process that should be utilized when a member needs to participate in a vote as set forth in fn. 1 to section B(1), above. Utilizing this procedure is vital as a knowing violation of the fiduciary duties set forth in §24-18-108.5, C.R.S., is a criminal act and this mechanism for disclosure “constitute[s] an affirmative defense to any civil or criminal action or any other sanction.”

### **C. Other ethical considerations.**

Former Governor Ritter adopted an executive order on ethics, which remains applicable to all who serve in the executive department.<sup>2</sup> It is broader than the rules of conduct proscribed by statute. It states that those who serve are to do so with integrity, honesty, impartiality, respect, concern, courtesy, and responsiveness to inspire public confidence and trust in government. The memo expressly prohibits:

- Engaging in any activity or business which creates a conflict of interest or has an *adverse effect on the confidence of the public* in the integrity of the government,
- Using your authority to give preference to family members or those in business or social relationships with you,

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<sup>2</sup> This memo does not opine on whether Board members who are appointed by the Governor “serve in the executive department.” Whether or not binding on Board members, the Executive Order sets forth reasonable standards that are designed to increase public confidence and should be observed.

- Using the state property, equipment, or supplies for private gain,
- Knowingly accepting any gift or thing of value from a professional lobbyist,
- Accepting anything of value which would influence faithful and impartial discharge of duties or as a reward for official action, and
- Disclosing, using, or allowing others to use confidential information acquired by state employment for private gain.

Please let me know if I might provide any further information regarding the Board's duties and ethical obligations.

*The information and advice contained herein is subject to attorney client privilege and reflects the legal opinions of the particular First and Senior Assistant Attorneys General but is not a formal opinion of the Office of the Attorney General.*



# COLORADO STATE UNIVERSITY SYSTEM

Colorado State University • Colorado State University - Pueblo • CSU - Global Campus

**Johnna Doyle, Deputy General Counsel**

## **INSTITUTE OF CANNABIS RESEARCH GOVERNING BOARD CONFLICTS DISCLOSURE STATEMENT**

All Institute of Cannabis Research Governing Board members shall submit this Statement annually on or before June 30. Additionally, all members shall amend this Statement not more than 91 days after any conflict of interest arises.

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

Check one:  ANNUAL FILING       AMENDMENT

### CONFLICTS OR POTENTIAL CONFLICTS OF INTEREST:

If your official actions could in any way harm, benefit, or promote your private interests or the interests of your family, friends, or business associates, you may have a potential conflict of interest. You may also have a conflict of interest if pursuing your own interests is incompatible with or detrimental to the State, or in any way compromises your loyalty to the State and your commitment to your duties.

Examples of conflict of interest (for illustrative purposes only):

- The Institute is hiring the consulting firm in which my brother-in-law is a partner to perform consulting services.
- I am an owner of a company that plans to bid on an Institute contract.

Please describe below all conflicts or potential conflicts of interest that you may have. If you are uncertain whether your situation presents a conflict or potential conflict of interest, contact the Board's Counsel.



# COLORADO STATE UNIVERSITY SYSTEM

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**Johnna Doyle, Deputy General Counsel**

November 18, 2019

To: Institute of Cannabis Research Governing Board  
From: Jacquelynn Rich Fredericks,  
First Assistant Attorney General  
Skip Spear and Natalie Powell,  
Senior Assistant Attorneys General  
RE: Open Meetings and Open Records, a Brief Summary

## **THIS DOCUMENT IS SUBJECT TO ATTORNEY-CLIENT PRIVILEGE**

### **A. Open meetings law pursuant to §24-6-401, *et. seq.*, C.R.S.**

1. Under the Open Meetings Law, **all** meetings of two or more Board members at which public business is discussed or at which any formal action is taken are required to be open to the public. Minutes must be taken which are open to public inspection. *See* §24-6-402(2)(a-d), C.R.S.
2. If a quorum or majority of the Board is expected to be or attends at such a meeting, the meeting can be held only **after** full and timely notice to the public. For the purposes of the Open Meetings Law, a meeting includes any gathering of members convened to discuss public business or take formal action, whether in person, by telephone, electronically, or by other means of communication. *Id.* These requirements do not apply to a chance meeting, or a social gathering, at which discussion of public business is not a central purpose. Any Bylaws the Board develops must be congruent with OML's requirements.
3. Colorado's Sunshine Law is silent as to what constitutes "timely" notice to the public from state public bodies such as the Institute of Cannabis Research Governing Board. However, pursuant to §24-6-402(2)(c), C.R.S., which governs notice given by local public bodies, notice is considered "timely" when it is posted in a designated public place, "no less than twenty-four hours prior to the ... meeting." Accordingly, the general

- preference is for the Institute of Cannabis Research’s Governing Board to post notice of any anticipated meeting no less than 24 hours in advance of the meeting. Under the statute, there may be rare exigent circumstances under which a lesser timeline may be defensible. Again, when the ICR develops its Bylaws, these must reflect compliance with the OML’s baseline requirements. Thus, while the Board could not set a policy that it will give notice less than 24 hours prior to a meeting, it could agree to abide by a greater time period for giving such notice.
4. It is critical that written notice of meetings is given because if the Board were to act without first properly noticing that agenda item, then, the action taken could be invalidated. *See Hyde v. Banking Bd.*, 552 P.2d 32 (1976).
  5. At any special or regular meeting of the Board, the Board may, by 2/3 vote of its “entire membership,” hold an executive session that is not open to the public. *See* §24-6-402(3)(a), C.R.S. The executive session may be held only to discuss specific matters enumerated in the law. *Id.* In order to convene in executive session, under the plain language of the statute, eight of the eleven Board members (representing 2/3 of the “entire membership”) must agree to hold the executive session. If an executive session is improperly convened, it could later be determined to be open, and the discussion during the session deemed subject to public disclosure. *See Gumina v. City of Sterling*, 119 P.3d 527 (Colo. App. 2004).
  6. Prior to the Board going into executive session, the gubernatorially appointed Chair must announce the topic(s) to be discussed in executive session and cite the legal basis for such topic(s) to be discussed in executive session. An executive session must be electronically recorded *unless it pertains exclusively to attorney-client privileged advice*. *See* §24-6-402(2)(d.5)(I)(A-B). The executive session recording may be destroyed after 90 days, unless some type of claim is made before destruction with respect to the appropriateness of the executive session. *Id.* at – 402(2)(d.5)(I)(E). If such a claim is made, the recording must be preserved until such claim is resolved.
  7. **No** formal action of the Board may be taken in executive session, except approval of minutes from a previous executive session. This prohibition against votes in executive session encompasses a ban on straw polls or other informal attempts to glean what a public session vote might look like, beyond discussion or the seeking of legal advice related to a particular permitted topic.

8. As a matter of prudence, once an executive session has formally ended and the public session has re-commenced, it is the best practice to engage in discussion or a summary of a matter before proceeding to any vote. This allows the public record to reflect the basis for a particular vote. This is critical because while you may receive legal advice from counsel during executive session(s), it is important for the public record to accurately reflect the Board's non-confidential and non-privileged discussions.
9. Colorado law expressly prohibits the Board from "rubber-stamping" decisions. *See Walsenburg Sand & Gravel Co. v. City Council of Walsenburg*, 160 P.3d 297 (Colo. App. 2007). Therefore, it is imperative that prior to acting on any issue that an adequate record is established via a substantive public discussion.
10. If the Board errs in some respect regarding Paragraph 9 above, the Board is permitted to "cure" a prior violation of the open meetings law. This is accomplished by holding a subsequent compliant meeting, including the necessary substantive public discussion, which is not a mere "rubber-stamping" of the prior decision. *See COHVCO v. Bd. of Parks & Outdoor Rec.*, 292 P.3d 1132 (Colo. App. 2012).
11. Although Open Meetings Law and its requirements can be tedious, it is critical that the Board adhere to the procedures mandated. If the Board is found to have violated Open Meetings Law, **regardless of whether the violation is knowing or intentional**, an aggrieved plaintiff would be entitled to a mandatory award of their costs and attorney's fees in litigation concerning the noncompliance. *See Zubeck v. El Paso County Retirement Plan*, 961 P.2d 597 (Colo. App. 1998).

#### **B. Open records act pursuant to §24-72-101, *et seq.*, C.R.S.**

1. Public records include "**all** writings made, maintained, or kept ..." *See* §24-72-202(6)(a)(I), C.R.S. (emphasis added). Writings consist of "**all** books, papers, maps, photographs, cards, tapes, records or other documentary materials ... including without limitation electronic mail messages ..." *See* §24-72-202(7), C.R.S. (emphasis added).
2. Electronic mail is any electronic message transmitted between computers, regardless of whether the messages are converted to a hard copy format upon receipt. *See* §24-72-202(1.2), C.R.S. **This includes emails between members of the Board about Board business, regardless of which email account it is transmitted from and to.**

3. In general, **all** Board records are presumed to be open to the public, unless they fall within one of the exceptions stated in the Act. Exceptions to the definition of public records are located at §24-72-202(6)(a)(II and IV-XIII), C.R.S. and are fairly specific and narrow. For this reason, when acting on behalf of the Board, you should assume that any documents you author, including your emails, might be public records. This same note of caution would apply to any other electronic messages you may exchange predicate to your service on the Board via messaging apps or text (although as discussed above, Board members should not be texting about Board business in a substantive manner outside of a duly noticed meeting, in order to maintain compliance with OML).
4. Work product, which includes deliberative materials, is one notable exception to public records. *See* §24-72-202(6.5), C.R.S. This is generally referred to as the deliberative process privilege or exception. Notably, although the materials gathered and communicated for the purpose of reaching a decision are work product and thus protected by deliberative process, any final document expressing an opinion or rendering a decision is not work product. *Id.* at (IV)(c-d), C.R.S.

Pursuant to the above, both the meetings that you hold in-person or telephonically, as well as the written communications you exchange, including via email or text messages are generally open to the public for inspection. Open meetings and records rules can be somewhat confusing, in particular with respect to the various exceptions. Please let us know if we might provide further guidance on either or both topics.

*The information and advice contained herein is subject to attorney client privilege and reflects the legal opinions of the particular First Assistant Attorney General and Senior Assistant Attorneys General but is not a formal opinion of the Office of the Attorney General.*



# COLORADO STATE UNIVERSITY SYSTEM

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**Johnna Doyle, Deputy General Counsel**

November 18, 2019

To: Institute of Cannabis Research Governing Board  
From: Jacquelynn Rich Fredericks, First Assistant Attorney General  
Skip Spear and Natalie Powell, Senior Assistant Attorneys General  
RE: Executive Session Suggested Script

**THIS DOCUMENT IS SUBJECT TO ATTORNEY-CLIENT PRIVILEGE**

## **SUGGESTED EXECUTIVE SESSION SCRIPT**

**Chair:**

- Do I have a motion to convene in executive session to confer with our Attorney to seek legal advice pursuant to §24-6-402(3)(a)(II), C.R.S, regarding **[you must list the issue to be discussed]**.
  - o The Board will seek legal advice from Counsel on specific legal questions regarding **[Issue]**.
- Someone must “so move”
- Someone else must “second” the motion

**Chair:**

- All in favor say “aye”
- Opposed?
- Any abstentions?

*[2/3 of the Board’s full membership (not merely of those in attendance), which would be 8/11 Board members must vote to convene in executive session. See §24-6-402(3)(a), C.R.S.]*

**Chair:**

- The Motion passes. The Board of Institute of Cannabis Research will convene in executive session with its Attorney to discuss the issues listed.

- *If there are other people the Board wishes to include such other employees, etc., you can add their names or titles when indicating that you will include them in the Executive Session.*
- Please turn off the public session tape.
- Please turn on the executive session tape.

*[Members of the public must leave the room.]*

**Chair:**

- Congruent with its public announcement and pursuant to §24-6-402(3)(a)(II), C.R.S. the Board is now in executive session with its Attorney to receive legal advice on **[list issue to be discussed]**.

*[Attorney-Client Privileged Discussion regarding each issue but “no adoption of any proposed policy, position, resolution, rule, regulation, or formal action” is taken until public session resumes. See §24-6-402(3)(a), C.R.S.]*

**Chair:**

- The attorney-client privileged discussion has concluded and this executive session is adjourned.
- Please turn off the executive session tape and mark it with today’s date.
- Please turn on the public session tape.

*[Invite the members of the public to return.]*

*The information and advice contained herein is subject to attorney client privilege and reflects the legal opinions of the particular Assistant Attorneys General but is not a formal opinion of the Office of the Attorney General.*



# COLORADO STATE UNIVERSITY SYSTEM

Colorado State University • Colorado State University - Pueblo • CSU - Global Campus

**Johnna Doyle, Deputy General Counsel**

November 18, 2019

To: Institute of Cannabis Research Governing Board  
From: Jacquelynn Rich Fredericks, First Assistant Attorney General  
Skip Spear and Natalie Powell, Senior Assistant Attorneys General  
Re: Public Meeting Executive Session Process, adapted from the APA

## **Reminders and Recommendations**

Best practice(s) at the conclusion of each Executive Session include:

- ✓ For the attorney to read a statement into the public record affirming the purpose of the Executive Session;
- ✓ For the Members to summarize matters discussed (without revealing confidential or attorney-client privileged information);
- For the Members to engage in **meaningful** public discussion prior to taking any action (to avoid the appearance that decisions were improperly made in the Executive Session).

**NO** votes may be taken during Executive Session.



# COLORADO STATE UNIVERSITY SYSTEM

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**Johnna Doyle, Deputy General Counsel**

**1**

**MOTION:**

Member makes a motion to go into Executive Session. To the extent possible, topics to be covered must be announced publicly.

**2**

**SECOND:**

Second member seconds the motion.

**3**

**VOTE:**

If 2/3 of members vote "aye," an Executive Session is convened.

**4**

**TRANSITION:**

Chair directs public to exit. Chair directs public meeting recorder be turned OFF and Executive Session recorder be turned ON.

**5**

**EXECUTIVE SESSION:**

Confidential and/or attorney-client privileged discussions. Note: When legal advice sought, may turn off recorder. But, attorney must either make statement on-record beforehand or sign written statement after.

**6**

**EXIT:**

Chair announces conclusion of Executive Session (states time). Chair directs Executive Session recorder be turned OFF and public meeting recorder be turned ON. Public invited to return.

## **\*\*FIRST DRAFT for Review\*\***

### **Institute of Cannabis Research Governing Board Bylaws**

#### **Article I: Name**

The name of this board shall be the Institute of Cannabis Research Governing Board (Board).

#### **Article II: Purpose**

##### **1. Board**

The Board has been created to provide certain oversight and support functions for Colorado State University – Pueblo’s Institute for Cannabis Research (IRC). The Board is specifically tasked with overseeing and guiding the mission and spending of the IRC. The Board is to advise Colorado institutions of higher education that seeks to establish cannabis-specific curricula. The Board will advise the Colorado Commission on Higher Education (CCHE) prior to CCHE approving any cannabis related degree or certificate programs. The Board, in consultation with the Director of the IRC, will fund research through an open and competitive process following national best practices. Eligible institutions/entities for research funding through the IRC include: any not-for-profit Colorado based research entity; any Colorado Institution of Higher Education and any research entity associated with such institution; and a research entity that has a Marijuana Research and Development license pursuant to CRS §44-11-408, that is operating in compliance with that section and is conducting the research with a Colorado Institution of Higher Education.

##### **2. Bylaws**

The purpose of these Bylaws shall be to establish the organizational rules and responsibilities of the Board and its relationship to the IRC. The Bylaws shall be reviewed annually at the beginning of the state fiscal year or more frequently depending on the proposed need and will be noted on the document for the purpose of tracking said changes.

#### **Article III: Membership**

##### **1. Appointments**

Board shall consist of the following members:

- The Chancellor of the Colorado State University System or designee
- The Executive Director of the Colorado Commission on Higher Education or designee
- The President of the University of Colorado or designee
- The Executive Director of the Department of Public Health and Environment or designee
- Seven members appointed by the Governor with the consent of the Senate: Three Scientists from relevant fields who have been employed at appropriate research oriented institutions or entities who support the mission of the IRC-P; and Four members associated with cannabis-related industries in Colorado.

## **2. Leadership**

The Governor will name the Chair of the Board with the consent of the Senate.

## **3. Terms**

Board members shall serve for the length of their appointment, until removed by the Governor or the passage of legislation disbanding the Board.

## **Article IV: Meetings**

### **1. Schedule**

The Chair of the Board will call all meetings. As a State Body for purposes of the Colorado Open Meetings Law, it will be the Chair's responsibility to ensure compliance with notice requirements, recordation of meeting minutes and calling of executive sessions.

### **2. Attendance**

Board members are expected to regularly attend and actively participate in Board meetings. Attendance at all meetings shall be a priority, and members are expected to come prepared to discuss agenda items.

### **3. Notices**

Board meeting notices, agendas, and minutes shall be emailed to all Board members through electronic mail at least one week in advance of the meeting date by the Chair.

### **4. Quorum**

At all meetings, seven Board members will constitute a quorum for the transaction of business.

### **5. Board Member Responsibilities**

Board members are to review all distributed meeting materials prior to the pertinent meeting. Board members should come prepared to discuss agenda items and engage in civil, collaborative discourse with board members and ICR Staff?

### **6. Expense Reimbursement**

Board members will be reimbursed for reasonable expenses travel expenses.

- **In State Participants** – you can request to be reimbursed for mileage as well as per diem and a hotel as needed. To reimburse you for these costs we will need to complete the attached forms so that we can establish you as a vendor in the CSU-Pueblo system and complete the reimbursement process. Per diem will be issued per state and federal best practices based on your travel details less any meals that are provided as part of the meeting.
- **Out of State Participants** – you can request to be reimbursed for airfare, a rental car, per diem and a hotel room if needed. To reimburse you for these costs we will need to complete the attached forms so that we can establish you as a vendor in the CSU-Pueblo

system. Also, within 5 business days following the event, please submit a detailed airfare, rental car and hotel receipt along with the travel reimbursement form (details below). Per diem will be issued per state and federal best practices based on your travel details less any meals that are provided as part of the meeting.

## **7. Bylaw Amendments**

These Bylaws may be amended at any meeting of the Board by the affirmative vote of five (6) Voting Members, provided that notice of any proposed amendment shall have been given with the notice of the meeting at which such amendment is scheduled to be voted upon. Any and all provisions of the Bylaws, not otherwise required by law, may be suspended by a vote of two-thirds (2/3) of the Voting Members of the Board present at any meeting of the Board.

### **Article V: Conflicts of Interest**

No Board member shall have at any time, directly or indirectly, an interest in any contract relating to the operations of the ICR nor in any contract for furnishing services or supplies to the ICR unless such contract has been approved by the majority of Board members at a meeting where the fact and nature of such interest is fully disclosed or known to the Board members and the interested party is not present for the vote.

## HB19-1311:

### Governing Board

1. THE GOVERNING BOARD SHALL OVERSEE AND GUIDE THE ROLE AND MISSION OF THE INSTITUTE. THE GOVERNING BOARD SHALL DIRECT THE SPENDING OF THE MONEY RECEIVED BY THE INSTITUTE PURSUANT TO SUBSECTION (4) OF THIS SECTION.

Guide the role, mission, and budget of the ICR.

2. THE GOVERNING BOARD SHALL ADVISE ANY COLORADO INSTITUTION OF HIGHER EDUCATION THAT SEEKS TO DEVELOP A CANNABIS-SPECIFIC CURRICULUM. THE COLORADO COMMISSION ON HIGHER EDUCATION SHALL SEEK INPUT FROM THE GOVERNING BOARD BEFORE APPROVING ANY CANNABIS-RELATED DEGREES OR CERTIFICATION

Advise academic institutions and CCHHE related to cannabis specific curriculum

3. GOVERNING BOARD MAY SOLICIT, ACCEPT, EXPEND, AND DISBURSE ALL MONEY COLLECTED FOR THE INSTITUTE FROM THE SOURCES SPECIFIED IN THIS SUBSECTION (4)(b) FOR THE PURPOSES OF CONDUCTING RESEARCH RELATED TO CANNABIS AND TO DISSEMINATING THE RESULTS OF SUCH RESEARCH PUBLICLY, CONSISTENT WITH THE ROLE AND MISSION OF THE INSTITUTE. SUCH MONEY MAY BE EXPENDED FOR THE PURPOSE OF FUNDING ACTIVITIES INITIATED DURING ANY STATE FISCAL YEAR THAT ARE TO BE COMPLETED IN SUBSEQUENT STATE FISCAL YEARS AND REPORTED ANNUALLY TO THE JOINT BUDGET COMMITTEE.

Fundraise to support research related to cannabis and dissemination of results.

4. THE GOVERNING BOARD SHALL APPROVE THE INSTITUTE'S ANNUAL BUDGET.

Approve ICR annual Budget.

5. **In relation to the Director:** THE GOVERNING BOARD IS THE SEARCH COMMITTEE TO THE HOST INSTITUTION'S CHIEF EXECUTIVE OFFICER, WHO IS THE HIRING AUTHORITY. THE GOVERNING BOARD SHALL PROVIDE FEEDBACK TO THE HIRING AUTHORITY FOR USE IN THE ANNUAL EVALUATION OF THE DIRECTOR.

Board advises Chief Executive Officer of the host institution on the selection of the Director. The Board provides feedback to the Chief Executive Officer of the host institution for use in the annual evaluation of the Director.

6. THE GOVERNING BOARD, IN CONSULTATION WITH THE INSTITUTE'S DIRECTOR:
  - a. MUST FUND RESEARCH THROUGH AN OPEN, COMPETITIVE PROCESS USING NATIONAL BEST PRACTICES; AND

Fund research through a competitive process for research funding using National Best Practices.

- b. MAY AWARD RESEARCH FUNDS TO: **(organizations eligible for research funding)**
    - i. ANY NOT-FOR-PROFIT COLORADO-BASED RESEARCH ENTITY;

- ii. ANY COLORADO INSTITUTION OF HIGHER EDUCATION AND ANY RESEARCH ENTITY ASSOCIATED WITH SUCH INSTITUTION; OR
  - i. A RESEARCH ENTITY THAT HAS A MARIJUANA RESEARCH AND DEVELOPMENT LICENSE PURSUANT TO SECTION 44-11-408, THAT IS OPERATING IN COMPLIANCE WITH THE REQUIREMENTS OF SECTION 44-11-408, AND IS CONDUCTING THE RESEARCH WITH A COLORADO INSTITUTION OF HIGHER EDUCATION.
7. THE GOVERNING BOARD SHALL SUBMIT THE ANNUAL REPORT TO THE JOINT BUDGET COMMITTEE AND THE EDUCATION COMMITTEES OF THE HOUSE OF REPRESENTATIVES AND THE SENATE, OR ANY SUCCESSOR COMMITTEES, AND SHALL COMMENT ON THE ANNUAL REPORT TO ADVISE THE GENERAL ASSEMBLY ON THE EFFICACY OF THE INSTITUTE RELATED TO ITS ROLE AND MISSION.  
[Submit annual report to appropriate committees and advise on efficacy of ICR.](#)
8. THE GOVERNING BOARD SHALL NOTIFY THE JOINT BUDGET COMMITTEE AND THE EDUCATION COMMITTEES OF THE HOUSE OF REPRESENTATIVES AND THE SENATE, OR ANY SUCCESSOR COMMITTEES, IF IT DETERMINES THAT THE HOST INSTITUTION SHOULD BE RELOCATED. IF THE HOST INSTITUTION IS TO BE RELOCATED, THE GOVERNING BOARD SHALL CONDUCT A SEARCH USING NATIONAL BEST PRACTICES AND COMPLETE THE TRANSITION IN ONE FISCAL YEAR. THE HOST INSTITUTION SHALL CONTINUE TO SUPPORT THE INSTITUTE DURING THE TRANSITION. A NEW HOST INSTITUTION MUST HOST THE INSTITUTE FOR AT LEAST FIVE YEARS BEFORE ANY SUBSEQUENT RELOCATION, UNLESS THERE IS GOOD CAUSE TO CHANGE THE HOST INSTITUTION.  
[Board to advise legislature on appropriateness of host institution for the ICR](#)

## ICR

1. THE ROLE AND MISSION OF THE INSTITUTE IS TO CONDUCT RESEARCH RELATED TO CANNABIS, INCLUDING CLINICAL RESEARCH, BIOTECHNOLOGIES, CLINICAL STUDIES, THE EFFICACIES OF MEDICAL MARIJUANA, AND ECONOMIC DEVELOPMENT ASSOCIATED WITH CANNABIS IN COLORADO, AND TO PUBLICLY DISSEMINATE THE RESULTS OF THE RESEARCH.  
[ICR is to direct research related to cannabis including in the specified areas and to disseminate results.](#)
2. THE INSTITUTE MAY SPEND THE MONEY RECEIVED FROM THE GENERAL ASSEMBLY FOR INSTITUTE PERSONNEL, TO CONDUCT RESEARCH, TO PRODUCE AN ANNUAL SYMPOSIUM, AND FOR ROUTINE FACILITY AND ADMINISTRATIVE COSTS CONSISTENT WITH FEDERAL STANDARDS.  
[ICR is to use funds to support personnel, conduct research, produce an annual symposium \(conference\), and for F&A.](#)
  - a. ENTITY OR INSTITUTION OF HIGHER EDUCATION THAT RECEIVES RESEARCH FUNDING FROM THE INSTITUTE SHALL PRESENT ITS RESEARCH RESULTS AT THE INSTITUTE'S ANNUAL SYMPOSIUM IN THE YEAR AFTER

THE RESEARCH IS CONCLUDED AND SHALL SUBMIT ANY REPORTS  
REQUIRED BY THE GOVERNING BOARD

Organizations receiving funding are to present the results of the work at the  
annual conference and to submit required reports to the Board.

3. THE INSTITUTE MAY SEEK, ACCEPT, AND EXPEND GIFTS, GRANTS, OR DONATIONS FROM PRIVATE OR PUBLIC SOURCES FOR THE PURPOSES OF THIS SECTION. THE INSTITUTE MAY ACCEPT AND EXPEND OTHER REVENUE GENERATED BY THE INSTITUTE, INCLUDING ANY FEES OR INTEREST EARNED ON THE MONEY AND REVENUE GENERATED FROM THE SALE OR LICENSE OF INTELLECTUAL PROPERTY AS APPROVED BY THE GOVERNING BOARD.

ICR may expend fundraised monies and other revenue.

4. THERE IS A DIRECTOR OF THE INSTITUTE. THE DIRECTOR IS AN EMPLOYEE OF THE INSTITUTION OF HIGHER EDUCATION THAT SERVES AS THE HOST INSTITUTION.

Director is the employee of the host institution.

- a. THE DIRECTOR'S RESPONSIBILITIES INCLUDE MANAGEMENT OF THE INSTITUTE'S BUDGET AND OVERSIGHT OF ITS EMPLOYEES, IMPLEMENTATION OF THE RESEARCH FUNDING PROCESS, AND DELIVERY OF THE SYMPOSIUM.

Director supervises staff, RFA process, and annual conference.

- b. THE INSTITUTE DIRECTOR SHALL ANNUALLY PRODUCE A REPORT FOR THE JOINT BUDGET COMMITTEE AND THE EDUCATION COMMITTEES OF THE HOUSE OF REPRESENTATIVES AND THE SENATE, OR ANY SUCCESSOR COMMITTEES, THAT INCLUDES THE FOLLOWING INFORMATION:

- i. DESCRIPTION OF THE RESEARCH FUNDED THROUGH THE INSTITUTE IN THE PREVIOUS YEAR; AND
- ii. AN ACCOUNTING OF THE INSTITUTE'S SPENDING FOR THE PREVIOUS YEAR.

Director to oversee the annual report that accounts for research funded and spending for the previous year.

## **Roles/Goals of the ICR:**

Bill includes roles as a funder of research and a research/education 'oversight' group and includes the potential for roles as a scholarly outreach group, a group to interact with the industry and the public in order to disseminate research, among others.

**We have a HUGE opportunity to address research and education gaps and elevate the ICR to national and international prominence.** We will likely pick several of the roles for the ICR and may need to have a rank order of priorities. I think we would do our best to focus on 2-3 key goals initially, break down into short and long term, and ask for enough funds to do those very well.

### **Long-term strategic goals:**

1. Increase and expand research expertise and funding across the areas specified in the bill.
  - a. Expand on the number and type of research projects funded
  - b. Incentivize collaborative research and research training across CO institutions
  - c. Incentivize collaborations with industry
  - d. Provide funds for competitive Post-doctoral, graduate, or undergraduate training fellowships to support research
2. Research dissemination and advocacy at state and national levels (State of Colorado, NIH, other cannabis research groups around the U.S., etc.)
  - a. Annual conference
  - b. Engagement with cannabis research institutes at other institutes of higher ed.
  - c. Establishing a larger national/international presence.
3. Budget goals.
  - a. Amount/structure of state request
  - b. Fundraising
  - c. Role for intellectual property to support ICR
3. Support state Higher Ed curriculums through advisory roles outlined in the bill.
  - a. Advise on higher ed curriculums in collaboration with CCHE
  - b. Dissemination of research through improved educational opportunities - students and via paid C.E. programs for clinicians in the community (MDs, PharmDs, nurses, psychologists and other mental health professionals).
4. TBD

### **Short-term priorities to meet these goals:**

- Finalize funding request to the state in the amount of \$3.6M (“doubling approach) to ~\$8M (suggested by Dr. Hasan based on original ask). Any funds needed to fulfill the mission of the ICR per HB19-1311 that cannot be supported with the state appropriated funds will be secured via fundraising efforts.

Item	FY20	FY21	FY22	FY23	FY24	FY25
<b>Personnel</b>						
Chad Kinney - Director (0.78 FTE)	\$ 106,853.26	\$ 110,058.86	\$ 113,360.62	\$ 116,761.44	\$ 120,264.28	\$ 123,872.21
Nicole Quartiero - Assistant Director (0.75 FTE until Dec19; then 1.0 FTE)	\$ 85,955.31	\$ 100,968.71	\$ 103,997.78	\$ 107,117.71	\$ 110,331.24	\$ 113,641.18
Xiao Cui - Data Analyst (1.0 FTE)	\$ 75,333.60	\$ 77,593.61	\$ 79,921.42	\$ 82,319.06	\$ 84,788.64	\$ 87,332.29
Sang Park - Research Scientist (1.0 FTE)	\$ 98,618.40	\$ 101,576.96	\$ 104,624.27	\$ 107,762.99	\$ 110,995.88	\$ 114,325.76
John Williamson - External Research Coordinator (0.25 FTE)	\$ 30,214.01	\$ 31,120.43	\$ 32,054.05	\$ 33,015.67	\$ 34,006.14	\$ 35,026.32
Amy Uhernick - Research Scientist (1.0 FTE)	\$ 75,333.60	\$ 77,593.61	\$ 79,921.42	\$ 82,319.06	\$ 84,788.64	\$ 87,332.29
Wendy Fairchild - Office Manager (0.25 FTE)	\$ 20,279.61	\$ 20,887.99	\$ 21,514.63	\$ 22,160.07	\$ 22,824.87	\$ 23,509.62
Wendy Fairchild - Office Manager (0.25 FTE)	\$ -	\$ 18,736.99	\$ 19,299.10	\$ 19,878.07	\$ 20,474.41	\$ 21,088.64
To Be Named - Grant Manager (1.0 FTE)	\$ -	\$ 85,995.00	\$ 88,574.85	\$ 91,232.10	\$ 93,969.06	\$ 96,788.13
To Be Named - External Fundraising Coordinator (xxx FTE)	\$ -	\$ 72,765.00	\$ 74,947.95	\$ 77,196.39	\$ 79,512.28	\$ 81,897.65
Postdoctoral Fellowship Program	\$ -	\$ 132,300.00	\$ 268,569.00	\$ 276,626.07	\$ 284,924.85	\$ 293,472.60
<b>Operational Costs</b>						
ICR Operating	\$ 45,441.50	\$ 67,598.12	\$ 52,004.12	\$ 35,942.29	\$ 19,398.61	\$ 2,358.62
ICR Operating				\$ 14,057.71	\$ 30,601.39	\$ 47,641.38
ICR Travel/PD	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
Additional Training/PD - Clinical Research	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 20,000.00
Journal	\$ 82,215.00	\$ 82,215.00	\$ 82,215.00	\$ 82,215.00	\$ 82,215.00	\$ 82,215.00
Conference	\$ 43,000.00	\$ 43,000.00	\$ 43,000.00	\$ 43,000.00	\$ 43,000.00	\$ 43,000.00
<b>Curriculum</b>						
Curricular Development - Higher Ed	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00
Curricular Development - Higher Ed	\$ -	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00
Curricular Development - Clinicians and Practitioners	\$ -	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00
<b>Research - New Projects</b>						
FY21 - Clinical Research Project 1 (Lg)	\$ -	\$ 777,500.00	\$ 777,500.00	\$ 777,500.00	\$ 777,500.00	\$ 777,500.00
FY21 - Clinical Research Project 2 (Lg)	\$ -	\$ 777,500.00	\$ 777,500.00	\$ 777,500.00	\$ 777,500.00	\$ 777,500.00
FY21 - Clinical Research Project 3 (Small)	\$ -	\$ 388,750.00	\$ 388,750.00	\$ -	\$ -	\$ -
FY21 - Clinical Research Project 4 (Small)	\$ -	\$ 388,750.00	\$ 388,750.00	\$ -	\$ -	\$ -
FY22 - Clinical Research Project 1 (Lg)	\$ -	\$ -	\$ 777,500.00	\$ 777,500.00	\$ 777,500.00	\$ 777,500.00
FY22 - Clinical Research Project 2 (Lg)	\$ -	\$ -	\$ 777,500.00	\$ 777,500.00	\$ 777,500.00	\$ 777,500.00
FY22 - Clinical Research Project 3 (Small)	\$ -	\$ -	\$ 388,750.00	\$ 388,750.00	\$ -	\$ -
FY22 - Clinical Research Project 4 (Small)	\$ -	\$ -	\$ 388,750.00	\$ 388,750.00	\$ -	\$ -
FY23 - Clinical Research Project 1 (Lg)	\$ -	\$ -	\$ -	\$ 777,500.00	\$ 777,500.00	\$ 777,500.00
FY23 - Clinical Research Project 2 (Lg)	\$ -	\$ -	\$ -	\$ 777,500.00	\$ 777,500.00	\$ 777,500.00
FY23 - Clinical Research Project 3 (Small)	\$ -	\$ -	\$ -	\$ 388,750.00	\$ 388,750.00	\$ -
FY23 - Clinical Research Project 4 (Small)	\$ -	\$ -	\$ -	\$ 388,750.00	\$ 388,750.00	\$ -
FY24 - Clinical Research Project 1 (Lg)	\$ -	\$ -	\$ -	\$ -	\$ 777,500.00	\$ 777,500.00
FY24 - Clinical Research Project 2 (Lg)	\$ -	\$ -	\$ -	\$ -	\$ 777,500.00	\$ 777,500.00
FY24 - Clinical Research Project 3 (Small)	\$ -	\$ -	\$ -	\$ -	\$ 388,750.00	\$ 388,750.00
FY24 - Clinical Research Project 4 (Small)	\$ -	\$ -	\$ -	\$ -	\$ 388,750.00	\$ 388,750.00
FY25 - Clinical Research Project 1 (Lg)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 777,500.00
FY25 - Clinical Research Project 2 (Lg)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 777,500.00
FY25 - Clinical Research Project 3 (Small)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 388,750.00
FY25 - Clinical Research Project 4 (Small)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 388,750.00
Science & Biotechnologies Project - A	\$ -	\$ 388,750.00	\$ 388,750.00	\$ 388,750.00	\$ 388,750.00	\$ 388,750.00
Science & Biotechnologies Project - B	\$ -	\$ 388,750.00	\$ 388,750.00	\$ 388,750.00	\$ 388,750.00	\$ 388,750.00
Social & Economic Impacts Project - A	\$ -	\$ 388,750.00	\$ 388,750.00	\$ 388,750.00	\$ 388,750.00	\$ 388,750.00
Social & Economic Impact Project - B	\$ -	\$ 388,750.00	\$ 388,750.00	\$ 388,750.00	\$ 388,750.00	\$ 388,750.00
<b>Research - Existing Projects ("ICR Directed")</b>						
Projects lead by ICR Senior Scientist	\$ 20,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00
Project - Annette Gabaldon	\$ 33,581.00	\$ -	\$ -	\$ -	\$ -	\$ -
Project - Neb Jaksic	\$ 54,617.00	\$ -	\$ -	\$ -	\$ -	\$ -
Project - Barabara Brett	\$ 75,190.00	\$ 52,713.00	\$ -	\$ -	\$ -	\$ -
Project - Brian Vanden Heuvel	\$ 233,375.00	\$ 222,933.00	\$ -	\$ -	\$ -	\$ -
Project - Sandra Bonetti	\$ 26,630.00	\$ -	\$ -	\$ -	\$ -	\$ -
Project - Laee Choi	\$ 30,813.00	\$ -	\$ -	\$ -	\$ -	\$ -
Project - Annette Gabaldon	\$ 121,694.00	\$ 133,620.00	\$ -	\$ -	\$ -	\$ -
Project - Kuang-Yung Huang	\$ 43,351.00	\$ -	\$ -	\$ -	\$ -	\$ -
Project - Jeff Smith	\$ 73,888.00	\$ -	\$ -	\$ -	\$ -	\$ -
Project - Karen Yescavage	\$ 41,690.00	\$ -	\$ -	\$ -	\$ -	\$ -
Project - Moussa Diawara	\$ 39,351.00	\$ -	\$ -	\$ -	\$ -	\$ -
Project - Drs. Kim and Park	\$ 27,690.00	\$ 39,760.00	\$ 41,560.00	\$ -	\$ -	\$ -
Project - Partnership Drs. Lee and Park	\$ 18,045.00	\$ -	\$ -	\$ -	\$ -	\$ -
Research Infrastructure	\$ 98,204.00	\$ -	\$ -	\$ -	\$ -	\$ -
TBD ICR Research Directed Projects	\$ -	\$ 25,974.00	\$ 433,440.00	\$ 475,000.00	\$ 475,000.00	\$ 475,000.00
<b>Other</b>						
RFP Management Software	\$ 18,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00
Board Meeting and Travel Costs	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal Direct Costs	\$ 1,674,363.30	\$ 5,654,910.29	\$ 8,129,004.20	\$ 9,711,603.63	\$ 11,297,095.29	\$ 12,893,501.70
Indirects (Current Budget)	\$ 163,636.33	\$ 163,636.33	\$ 163,636.33	\$ 163,636.33	\$ 163,636.33	\$ 163,636.33
Indirects (Additional Funding)	\$ 3,800.00	\$ 404,452.10	\$ 692,608.09	\$ 855,024.03	\$ 1,013,573.20	\$ 1,173,213.84
TOTAL	\$ 1,837,999.63	\$ 5,818,546.62	\$ 8,292,640.53	\$ 9,875,239.96	\$ 11,460,731.62	\$ 13,057,138.03
Current Appropriation	\$ 1,800,000.00	\$ 1,800,000.00	\$ 1,800,000.00	\$ 1,800,000.00	\$ 1,800,000.00	\$ 1,800,000.00
Additional Funding Ask amount	\$ 37,999.63	\$ 4,018,546.62	\$ 6,492,640.53	\$ 8,075,239.96	\$ 9,660,731.62	\$ 11,257,138.03
Totals from 09.26.19 version (discussed during the previous call)	\$ 123,994.96	\$ 4,349,429.20	\$ 6,701,149.58	\$ 8,290,313.57	\$ 9,882,257.44	\$ 11,460,309.62
Difference	(\$85,995.33)	(\$330,882.59)	(\$208,509.05)	(\$215,073.61)	(\$221,525.82)	(\$203,171.59)

## ICR BUDGET NARRATIVE

### **Personnel Costs**

**Chad Kinney, PhD - Director** (0.78 FTE; current funds) is responsible for the overall leadership, operational management, fiscal management, external relations, and direction of the Institute for Cannabis Research (unbiased, data-driven organization). Manages and evaluates ICR staff members. Liaises with internal and external organizations, regional stakeholders, and government personnel/lawmakers. Facilitates major ICR Activities including the ICR's research (RFA Process and Review), annual international conference (ensures conference committees meet, communicates with keynote speakers, and facilitates a vision and process for the conference to see it grow in importance and reputation), and the Journal of Cannabis Research (liaises with Springer Nature and Editor-in-Chief), convenes the ICR Steering Committee and the Community Liaison Board.

**Nicole Quartiero, MS, CRA – Assistant Director** (1.0 FTE; current funds) is currently 0.75 FTE, but will be transitioning to 1.0 FTE effective January 1, 2020. The AD is responsible for being a working lead and subject matter expert in research administration charged with executing important operational and fiscal functions. This position directs the administrative functions of the ICR including fiscal oversight and coordination of key stakeholder meetings. The Assistant Director expands the bandwidth of the Director by strategically managing their time to ensure objectives are met through the best use of available resources through detailed budget development and sound fiscal management processes. Works closely with Director and associated staff to create deliverables that meet stakeholder expectations. Maintains accurate and timely communications with all team members, project stakeholders, donors and sponsors. Drives decisions by maintaining project timelines and communicating next decision point to relevant stakeholders. Builds and maintain relationships with key international, national, state, regional and local decision-makers and organizations. Works closely with the Office of Research and Sponsored Programs, Office of General Council, the University Foundation, key state representatives and other relevant stakeholders to support the cultivation funders and a diverse funding portfolio. Organizes events that convene key stakeholders to consider important and challenging issues in the cannabis space. Represents the Institute at workshops, conferences and other events both within CSU and externally. Work in close collaboration with the Public Relations (PR) team to create content and manage PR pieces and media requests.

**Xiao Cui, MS – Data Analyst** (1.0 FTE; current funds) is responsible for supports ICR researchers with experimental design and statistical analysis, as well as monitoring fiscal data for the ICR. Currently advising and collaborating with several ICR supported researcher as well as external collaborators. Serves as the ICR Fiscal Officer. Maintains and updates ICR website. Serves on the ICR Conference Planning Committee and manages the Registration and Abstract submission portals.

**Sanghyuck Park, PhD – Senior Research Scientist** (1.0 FTE; current funds) is responsible for providing leadership to the ICR research team and conduct cannabis research in collaboration with other academic institutions and industries. Furthermore, he acts as a liaison to connect with other entities to facilitate expanding existing knowledge on cannabis and translating this knowledge into applications that benefit society. Stays current with leading research knowledge and practices by attending and presenting at appropriate meetings, and maintains currency with regulatory affairs and issues related to compliance. Supports obtaining and maintaining certifications and licensure. Oversees competitive ICR grants application process including the development of RFA and review process for ICR grants, manages the ICR Scientific Research Advisory Board, established and convenes the Hemp Farmers Association..

**John Williamson, PhD – External Research Coordinator** (0.25 FTE; current funds) is responsible for assisting researchers with guidelines on allowable cannabis research activities, guidelines for sponsored research, identification of available state and federal guidelines, external funding opportunities, dissemination of resources through the ICR website. Facilitate financial resource diversification: work with faculty to translate ICR funding to other external funding. Collaborate on the development and provide guidance on the development of hemp/cannabis curriculum.

**Amy Uhernik, MS – Research Scientist** (1.0 FTE; current funds) is responsible for assisting with or designing, undertaking and analyzing information from controlled laboratory-based investigations, experiments and trials. Serves on the conference program planning committee as a subject matter expert.

**Wendy Fairchild – Office Manager** (0.25 FTE - current funds; 0.25 FTE – new funds) is responsible for managing internal communications, coordinates activities planning/scheduling, and assists with contracts and purchasing in CSU-Pueblo's financial system of records. Reports to Director.

**To Be Named – Grant Manager** (1.0 FTE; new funds) is responsible for providing administrative and technical guidance and support to any person seeking ICR funding for research, public service, and sponsored institutional projects through state funding. Stays apprised of relevant regulations and translates those into application guidelines, and standards, and oversees the processing of the grant submission and award process. Also responsible for tracking, reconciling, and compliance. Would report to ICR Assistant Director.

**To Be Named – Fundraising Coordinator** (1.0 FTE; new funds) is responsible for deploying fundraising principles ascertain the best course of action to build relationships between a donor and the university. Works closely with relevant stakeholders to identify donor prospects. Qualifies donor prospects capable of gifts through various interactions. Develops cultivation and solicitation strategies for new and previously identified prospects; shapes and implements donor strategy that leads to successful gift solicitation. Facilitates relationships with donors, potential donors, upper level university administration, and university personnel by providing accurate information, using problem solving techniques, developing appropriate messaging strategies, and by identifying areas for their donor engagement within the identified research program areas. Would report to ICR Director.

*All personnel costs include a projected 3% annual cost of living adjustment mid-fiscal year per CSU-Pueblo traditional HR practices.*

#### **Fringe Benefits**

Fringe benefits are the estimated cost associated with personnel costs for this proposal, and is based upon the FY20 rate of 32.3% for full time professional appointments as determined by the University.

#### **Postdoctoral Fellowship Program**

Funds have been included to support the creation of a postdoctoral research and teaching fellowship program. The program would support up to two new fellows each year for a duration of up to two years by paying for an annual stipend and fringe benefits.

#### **Operating Expenses – Current Funds**

Funds have been included to support the operational costs (e.g., office supplies, print supplies, phone charges, computers, etc.). It is estimated that the ICR would need approximately \$50,000/year to support operational costs. This can be paid for with current funds until FY23 in which case we would need additional support to sustain that funding threshold.

#### **Operating Expenses – New Funds**

Funds have been included to support the difference in what the ICR “current funds” can sustain to maintain a budget line item of \$50,000 for FY23-FY25.

#### **Professional Development/Travel – Current Funds**

Funds have been included to support the travel and conference registration costs for professional development of ICR staff. Thus far, funds have supported staff to attend cannabis and discipline related professional development conferences.

#### **Professional Development/Travel – New Funds**

Funds have been requested to support professional development activities in the areas of clinical research. The ICR has not historically supported RCTs and thus, it would be beneficial for staff to be well versed on the nuances of RCTs and clinical research in the cannabis area.

#### **Journal of Cannabis Research**

Funds have been included to support the cost of the publication costs associated with the Journal of Cannabis Research in conjunction with Springer nature. This contract supports the submission fees for accepted papers for the first five years of the journal. These costs also support the contractor agreement with the Editor-in-Chief of the journal.

### **Annual Research Conference**

Funds have been included to support the cost of the annual academic research conference supported and managed by the ICR. These funds cover supplies, food, reception, AV, travel costs for keynote speakers and other miscellaneous expense. Revenue is also generated from the conference and is used to support any additional costs or costs that are unallowable with state funds. To ensure cost-saving measures, the conference has been held on the CSU-Pueblo campus to avoid having to pay room or rental fees. Further, because the conference has happened on campus the ICR has been able to utilize institutional services such as procurement, marketing, IT, facilities, printing services, marketing/design, security (at a reduced rate) and catering services (at a reduced rate).

### **Curricular Development – Current Funds**

Funds have been included to support mini grants to CSU-Pueblo and affiliate faculty to support expenses related to course redesign that would be included in the Cannabis Chemistry and Biology degree program.

### **Curricular Development – New Funds**

Funds have been included to expand the existing curricular development program.

### **Clinical Curricular Development – New Funds**

Funds have been included to support the expansion of the current curricular grant program but with an emphasis on clinical and medical education efforts.

### **New Research Projects**

Funds have been included to conduct research related to cannabis, including clinical research, biotechnologies, clinical studies, the efficacies of medical marijuana and economic development associated with cannabis in Colorado per HB19-1311. This would include several new grants each year that are equivalent to either an R01 or an R21 as awarded in traditional federal grant programs offered by the National Institutes of Health. Direct and indirect costs (estimated at 55.5% of TDC per the highest rate in the state) based on federal norms.

### **Current CSU-Pueblo Research Projects**

Funds have been included to support the continuation of projects that have been previously peer reviewed and funded at CSU-Pueblo in the cannabis space. In an effort to build and maintain a renowned reputation as a leading cannabis research institute, it will be important to maintain a research footprint locally.

### **RFP Management Software**

Funds have been included to support the costs of a competitive grant proposal software program to manage a statewide competition. Current costs are based on the InfoReady system used by our sister school Colorado State University.

### **ICR Governing Board Meeting and Travel Costs**

Funds have been included to support the costs associated with hosting in person meetings for the ICR Governing Board Members. These funds would also be used to reimburse travel expenses for our Governing Board members when requested per the University and state fiscal travel rules which can be accessed online at [https://www.csupueblo.edu/vice-president-for-finance-and-administration/\\_doc/bfs-policy/rule05/fpi-5-1-travel-pueblo.pdf](https://www.csupueblo.edu/vice-president-for-finance-and-administration/_doc/bfs-policy/rule05/fpi-5-1-travel-pueblo.pdf)

### **Facilities and Administration Costs**

Indirect costs are calculated on the total direct cost base model using rates approved by the State at a rate of 10% for FY20.



Chris Rasmussen, PhD  
1600 Broadway, Suite 2200  
Denver, CO 80202

January 27, 2020

Dear Dr. Rasmussen,

The Cannabis Biology and Chemistry degree program proposed by Colorado State University-Pueblo has been reviewed by the Institute of Cannabis Research (ICR) Governing Board per House Bill 19-1311. This was a multistep process. First, one of the Board Members representing cannabis industries oversaw the initial review of the proposed degree program and provided feedback to the Dean of the College of Science and Mathematics at CSU-Pueblo. Second, the Dean provided a response to the feedback along with some additional information about new courses that will be part of the proposed degree program. All of this information was shared with the Board for review. Upon review and discussion the board has voted to support the implementation of this program by the Colorado Commission on Higher Education. As part of this final discussion the following recommendations were provided to CSU-Pueblo for consideration:

- Consider potential legal ways to allow students to investigate and research cannabis materials with a THC content of >3%
- Consider a certificate program for professional students
- Consider allowing enough electives for those pursuing minor or other course work to support student success post-graduation (e.g. Business Minor, Psychology Minor, etc.)
- Consider how to effectively include and formalize an Experiential Learning components
- Carefully consider marketing approach for the degree program, including the suggestion of a Dean's letter to targeted parties to actively get the word out about the program

Please let me know if I can provide any additional details about the discussion or suggestions. Thank you for your time.

Sincerely,

L. Cinnamon Bidwell, Ph.D.  
Chair of the ICR Governing Board  
Director of the Center for Research and Education Addressing Cannabis and Health  
University of Colorado Boulder

**TOPIC:** SECOND CHANCE SCHOLARSHIP PROGRAM

**PREPARED BY:** SARAH PAK, SECOND CHANCE SCHOLARSHIP PROGRAM  
COORDINATOR

**I. SUMMARY**

This is an update on the development of the Second Chance Scholarship Program, which was created in pursuant to [Senate Bill 19-231](#).

**II. BACKGROUND**

Senate Bill 19-231 established the Colorado Second Chance Scholarship with an appropriation of \$313,691 to the DHE for FY 2019-2020. The statute calls for the DHE to award scholarships of up to \$10,000 to applicants who were previously committed to the Division of Youth Services (DYS) in the Colorado Department of Human Services (DHS) and who have made the decision to attend a higher education institution in pursuit of completing a postsecondary credential. The goal of the scholarship program is to significantly reduce recidivism by providing these individuals with the opportunity to pursue a postsecondary credential and gainful employment.

As directed by statute, the executive director of the Colorado Commission on Higher Education hired a program coordinator within the Outreach and Attainment Services Division of the Department, who began work on Oct. 22, 2019. The program coordinator and four other members of the Colorado Second Chance Scholarship Advisory Board are:

Dr. Angie Paccione (Executive Director, DHE)  
Dr. Natalie Chrastil (Associate Director, DYS)  
Samantha Garrett (Education Specialist, DHS)  
Sarah Pak (Second Chance Program Coordinator, DHE)  
Tasia Noland (Youth representative previously committed to the DYS)

The board elected Dr. Angie Paccione as its chairperson and has held two board meetings to date. The board is currently deliberating criteria related to individual eligibility; application procedures; the types of credentials allowed; and the types of institutions included. In addition, the board approved the following implementation timeline:

<b>March-April</b>	Scholarship application period open
<b>April</b>	Application review and board status update
<b>May</b>	Scholar notification
<b>June 30</b>	Scholarship disbursements totaling \$250,000 completed

The Second Chance Scholarship coordinator is developing a draft scholarship application form and disbursement logistics/tracking and determining effective communication strategies

regarding the availability of the scholarship opportunity to the general public, state agencies, community partners, and local organizations.

### **III. STAFF ANALYSIS**

This is an information item only.

### **IV. STAFF RECOMMENDATIONS**

No formal action is required by the Commission.

### **V. STATUTORY AUTHORITY**

COLORADO SECOND CHANCE SCHOLARSHIP Cross references: For the legislative declaration in SB 19-231, see section 1 of chapter 290, Session Laws of Colorado 2019.

**23-3.3-1201. Colorado second chance scholarship - creation - eligibility.** There is created in the department of higher education the Colorado second chance scholarship program, referred to in this part 12 as the "scholarship program". Subject to available appropriations, the scholarship program shall award scholarships to assist persons previously committed to the division of youth services in the department of human services in the persons' pursuit of a postsecondary credential. The advisory board created in section 23-3.3-1203 shall award scholarships on a need basis, based on the criteria specified in section 23-3.3-1203 (3).

Source: L. 2019: Entire part added, (SB 19-231), ch. 290, p. 2672, § 2, effective August 2.

**23-3.3-1202. Program coordinator - duties.** The executive director of the Colorado commission on higher education or the executive director's designee shall appoint a program coordinator who shall counsel and support scholarship recipients by regularly meeting with recipients to set education and employment goals and connect students with wraparound services.

Source: L. 2019: Entire part added, (SB 19-231), ch. 290, p. 2673, § 2, effective August 2.

**23-3.3-1203. Colorado second chance scholarship advisory board - creation - duties - report - rules - repeal.** (1) There is created the Colorado second chance scholarship advisory board, referred to in this section as the "advisory board", which consists of the following five members:

(a) The director of the division of youth services in the department of human services or the director's designee; Colorado Revised Statutes 2019 Page 156 of 673 Uncertified Printout

(b) The executive director of the Colorado commission on higher education or the executive director's designee;

(c) The executive director of the department of human services or the executive director's designee;

(d) The program coordinator of the Colorado second chance scholarship; and

(e) An individual previously committed to the division of youth services in the department of human services through lived experiences appointed by the director of the division of youth services in the department of human services.

(2) The advisory board shall hold its first meeting on or before November 1, 2019, at a time and place to be designated by the executive director of the Colorado commission on higher education or the executive director's designee. The board shall meet at least four times each year and shall establish by rule the procedures by which a person may apply for a scholarship. At a minimum, the rules must specify the information a person shall submit and the deadlines for submitting the application.

(3) The advisory board shall award scholarships up to ten thousand dollars to applicants based on the following criteria:

(a) An applicant's prior commitment to the division of youth services in the department of human services;

(b) An applicant's demonstrated degree of financial need, based on the resources available to the applicant;

(c) An applicant's acceptance to an institution that offers postsecondary credentials, including but not limited to an accredited trade school, community college, certificate program, or other institution of higher education; and

(d) Any other criteria adopted by rule of the advisory board to identify persons in the greatest need of assistance in the pursuit of any postsecondary credential.

(4) The advisory board shall set the amount of each scholarship based on the person's degree of financial need, the cost of attendance, the amount available for the applicable budget year, and the anticipated number of persons who will apply to the scholarship program in the course of the applicable budget year.

(5) The department of higher education shall report on the scholarship program to the public through the annual hearing pursuant to the "State Measurement for Accountable, Responsive, and Transparent (SMART) Government Act", part 2 of article 7 of title 2.

(6) This section is repealed, effective September 1, 2022. Prior to such repeal, the Colorado second chance scholarship program is scheduled for review as provided in section 24- 34-104.

| Source: L. 2019: Entire part added, (SB 19-231), ch. 290, p. 2673, § 2, effective August

**TOPIC:** FUNDING ALLOCATION FORMULA UPDATE

**PREPARED BY:** JASON SCHROCK, CHIEF FINANCIAL OFFICER; EMILY BURNS,  
SENIOR FINANCE ANALYST; EMMA FEDORCHUK, BUDGET  
AND FINANCE ANALYST

## **I. SUMMARY**

This agenda item is to provide an update on the funding formula.

## **II. BACKGROUND**

The Department submitted a new proposed funding formula for allocating state funding for public higher education on November 12. The formula allocated 10 percent of base funding and all new funding with the intention of increasing the amount of base funding allocated over time to ultimately reach 100 percent of funding. However, after further analysis, it was determined that the November 12 formula structure is not able to allocate 100 percent of funding in a viable manner. Staff is currently working on finalizing a new formula that will allocate 100 percent of funding to be completed by March 1. The intention is for this formula to be utilized for the FY 2020-21 budget and be viable for the five-year period until the next review required under SB 19-095.

## **III. STAFF ANALYSIS**

An update on the funding formula work will be shared and discussed at the meeting. Staff is working on a formula but does not have anything finalized at this time; however, staff will discuss some of the working concepts.

It is both the Department's and Governor's office's goal to ensure that the development of the formula will involve collaboration with all stakeholders, including the Commission and the state's higher education institutions, and align with the Master Plan and the Governor's priorities. Furthermore, the formula must:

- Increase the proportion of funding tied to outcomes compared with the current law HB 14-1319 formula (about 20 percent of funding is tied to outcomes under the current law formula);
- Award funding based on 4- and 6-year graduation rates;
- Weigh underrepresented minority, Pell, and first-generation students (when data is available);
- Exclude non-resident students;
- Be understandable and easy to explain for institutions and policymakers; and
- Provide predictable and viable funding for institutions.

The goal is for the new formula to be finalized by March 1 so that it can be utilized for the FY 2020-21 budget process during the 2020 legislative session. Legislation will need to be introduced in the legislative session in order to enact the statutory changes needed to implement the formula.

#### **IV. STAFF RECOMMENDATIONS**

Staff recommends that the Commission provide feedback regarding the development of the formula.

#### **V. STATUTORY AUTHORITY**

##### **23-18-306 Duties and powers of the commission – department - role and mission factors and performance metrics - consultation with interested parties - facilitator - reports - definition – repeal**

(5.5) (a) Commencing in 2019 and every five years thereafter, the commission shall review the funding formula established pursuant to this section and, by November 1, 2019, and November 1 every five years thereafter, submit a report to the governor, the joint budget committee of the general assembly, and the education committees of the senate and the house of representatives, or any successor committees, containing changes to the funding formula and any recommendations for legislative changes.

(b) In conducting the review required by subsection (5.5)(a) of this section, the commission and the department shall:

(I) Convene one or more meetings with interested parties to discuss the existing funding model and to learn of issues raised by the interested parties;

(II) Conduct an analysis of the issues identified by interested parties and possible solutions;

(III) Engage directly with the institutions to strive for consensus among the institutions on any proposed changes; and

(IV) If applicable, develop a set of changes to recommend to the governor and committees of the general assembly.

(c) Notwithstanding the provisions of section 24-1-136 (11)(a)(I), the reporting requirement pursuant to this subsection (5.5) continues indefinitely.

(5.5) (a) Commencing in 2019 and every five years thereafter, the commission shall review the funding formula established pursuant to this section and, by November 1, 2019, and November 1 every five years thereafter, submit a report to the governor, the joint budget committee of the general assembly, and the education committees of the senate and the house of representatives, or any successor committees, containing changes to the funding formula and any recommendations for legislative changes.

(b) In conducting the review required by subsection (5.5)(a) of this section, the commission and the department shall:

(I) Convene one or more meetings with interested parties to discuss the existing funding model and to learn of issues raised by the interested parties;

(II) Conduct an analysis of the issues identified by interested parties and possible solutions;

- (III) Engage directly with the institutions to strive for consensus among the institutions on any proposed changes; and
- (IV) If applicable, develop a set of changes to recommend to the governor and committees of the general assembly.
- (c) Notwithstanding the provisions of section 24-1-136 (11)(a)(I), the reporting requirement pursuant to this subsection (5.5) continues indefinitely.

**ATTACHMENTS:**

**TOPIC:** LEGISLATIVE UPDATE

**PREPARED BY:** CHLOE MUGG, LEGISLATIVE LIAISON

**I. SUMMARY**

This discussion item is to provide a status update on the 2020 legislative session.

**II. BACKGROUND**

The Legislature meets each year for 120 days from January to May. During this time, the Colorado General Assembly considers legislation and develops a budget for the upcoming fiscal year.

The Department is actively involved in both the budget development and consideration of public policy by legislators and staff that would affect higher education.

The Department meets regularly and works closely with the institutions of higher education, the Governor's office and the General on all bills impacting higher education and provides policymakers with information about pending legislation and key issues.

**III. STAFF ANALYSIS**

A status update of pending legislation impacting higher education will be shared and discussed at the meeting.

**IV. STAFF RECOMMENDATIONS**

**This is an information item only; no formal action is required by the Commission.**

**V. STATUTORY AUTHORITY**

Not applicable

**TOPIC:** AD-HOC COMMITTEE ON COST CONTAINMENT AND AFFORDABILITY

**PREPARED BY:** BEN BOGGS, CHIEF OF STAFF, AND KATIE ZABACK, SENIOR POLICY DIRECTOR

## **I. SUMMARY**

In November 2019, Governor Polis and Executive Director Paccione released the roadmap to containing costs and making college more affordable. To help implement the plan, they asked the Colorado Commission on Higher Education (CCHE) to establish a cost containment subcommittee led by Commissioners Hughes and Olena. This discussion is an opportunity for the Commission to confirm the charge of the Committee and identify next steps.

## **II. BACKGROUND**

In 2019, the Governor's office worked with the Colorado Department of Higher Education to develop a roadmap to containing costs and making college affordable. This roadmap outlines near, medium- and long-term strategies to contain costs and put higher education in reach for all Coloradans. It also draws from the principles put forward and affirmed by the Commission when it adopted an affordability framework in April of 2018.

This framework was adopted following a discussion at the 2018 annual retreat led by Dr. Brian Prescott, a national expert on affordability, who is a Vice President at the National Center for Higher Education Management Systems (NCHEMS). CDHE finance and budget staff. Dr. Prescott returned with Dr. David Tandberg, Vice President at the State Higher Education Executive Officers and Dr. Michelle Asha Cooper President of the Institute for Higher Education Policy to present to the Commission in October. These national experts discuss three existing affordability standards that the Commission might explore in their efforts to define affordability. In response to the national discussion, CDHE staff drafted a white paper placing these standards in the Colorado context, and the Commission agreed to convene a working group to determine their own approach to defining affordability. The workgroup met throughout 2019 and presented twice to the entire Commission in addition to soliciting feedback from institutional CEOs, CFOs and CAOs as well as Governor Polis.

The purpose of the affordability framework and principles was to guide policy to help the state reach the attainment goals put forward by Colorado Rises. It provides a common understanding for students and families, institutions and the public about what makes higher education affordable.

The framework provided a foundation to creating the roadmap that defines specific strategies that the state and institutions can take to help make college more affordable for students. At the December 2019 Commission Meeting, Department staff and Allie Kimmel, Senior Policy Advisor to the Governor presented an overview of the Roadmap and the governor's priorities for its implementation. To guide implementation, Governor Polis and Executive Director Paccione asked the Colorado Commission on Higher Education (CCHE) to establish an ad hoc commit on cost

containment and affordability and identified Commissioners Hughes and Olena to lead this Committee.

The draft committee charge is as follows:

### **Ad-Hoc Committee on Cost Containment and Affordability**

By offering bold solutions, the Roadmap to Containing College Costs and Making College Affordable provides a pathway to reduce costs for students and help them succeed. Although Colorado is already making progress on several short-term steps, implementing the roadmap in its entirety will require strong leadership and consistent focus.

This ad-hoc committee of the [Colorado Commission on Higher Education](#) has been established to help implement this plan. This Committee will build on the work of a prior ad-hoc committee on affordability that developed the Commission's [Framework for Affordability](#). The committee will work with Department staff to develop an action plan, provide guidance and hold the Department and institutions accountable to this work.

This discussion will provide an opportunity for Commissioners to refine this charge and set goals for the Committees work.

### **IV. STAFF RECOMMENDATION**

**This is a discussion item, no recommendation.**

### **IV. ATTACHMENT**

**Committee Charge**

### **III. STATUTORY AUTHORITY**

#### **23-1-108. Duties and powers of the commission with regard to systemwide planning - reporting - definitions.**

(1.5) (a) On or before September 1, 2012, the commission shall develop and submit to the governor and the general assembly a new master plan for Colorado postsecondary education. The commission shall collaborate with the governing boards and chief executive officers of the state institutions of higher education in developing the master plan. In addition, the commission shall take into account the final report of the higher education strategic planning steering committee appointed by the governor. In drafting the master plan, addressing the issues specified in paragraph (b) of this subsection (1.5), and establishing the goals as described in paragraph (c) of this subsection (1.5) for the state system of higher education, the commission shall also take into

consideration the data collected pursuant to subsection (1.7) of this section. (b) At a minimum, the commission shall address the following issues in developing the master plan:

(I) The needs of the state with regard to the system of higher education and the top priorities for the state system of higher education in meeting those needs;

(II) Alignment of the state system of higher education with the system of elementary and secondary education and increasing the rate at which students who graduate from Colorado high schools enroll in and complete postsecondary and career and technical education;

(III) Accessibility and affordability of the state system of higher education, including consideration of methods to reduce the student debt load and increase need-based financial aid funding;

(IV) Funding for the state system of higher education and strategies for stabilizing and sustaining an adequate funding level;

(V) The role and mission of the state institutions of higher education and the governance structure of the state system of higher education;

(VI) The role of two-year and four-year local district colleges and area technical colleges in helping to address the workforce and economic development needs of the state within the system of higher education; and

(VII) The importance of private and proprietary institutions with regard to higher education in the state, although consideration of said institutions in the plan in no way implies control or state authority over their operations.

(c) The commission shall design the master plan to achieve, at a minimum, the following goals:

(I) Increasing the overall number of baccalaureate degrees, associate degrees, and career and technical education certificates issued by the public institutions of higher education in the state, while maintaining accessibility to the institutions, to provide support for economic development and a well-educated workforce for the business community in the state;

(II) Implementing systemic approaches, including coordinated and proven transitional programs, that strengthen the continuity of public education from elementary and secondary through postsecondary education for traditional and nontraditional students;

(III) Ensuring the long-term fiscal stability and affordability of the state system of higher education and ensuring the efficient allocation of available state resources to support institutions Colorado Revised Statutes 2018 Page 23 of 635 Uncertified Printout of higher education while protecting the unique mission of each institution. The allocation shall take into consideration, but need not be limited to, tuition capacity, tuition rates relative to competitive institutions, the state resources available to institutions, funding for high-cost programs, the student and family incomes of students enrolled at institutions, enrollment levels, geographic access to educational opportunities throughout the state, and other issues deemed relevant by the commission.

(IV) Reducing the educational attainment gap between majority and underrepresented populations throughout the state;

(V) Reducing the geographic disparities in access to and opportunity to complete a broad array of quality higher education and career and technical education programs;

(VI) Addressing opportunities for students with disabilities, including intellectual disabilities, to participate in postsecondary education;

(VII) Implementing strategies that strengthen the link between higher education and economic development and innovation in the state; and

(VIII) Improving and sustaining excellence in career and technical education and undergraduate and graduate degree programs.

(d) (I) The commission shall ensure that the master plan prepared pursuant to this subsection (1.5) specifically addresses providing coordinated and proven programs that support and help ensure the success of students who graduate from Colorado high schools and are enrolling as first-time freshmen students and meet one or more of the following criteria:

(A) The student's family is low-income and the student is likely to incur significant student debt in attending an institution of higher education;

(B) The student's parents did not attend postsecondary education and may not have graduated from high school;

(C) The student is a member of an underrepresented population; or

(D) The student has limited access to technologies to support learning.

(II) Programs that may be addressed in the master plan include but need not be limited to:

(A) Providing student support services including counseling or tutoring;

(B) Implementing measures to reduce student debt by making effective use of financial assistance and assisting in fee payments and textbook costs; and

(C) Providing assistance in obtaining access to technology.

(e) Prior to submitting the master plan to the governor and the general assembly, the commission shall distribute a draft of the plan to the governing boards for comment. Each governing board shall submit to the commission its comments and any suggested revisions within thirty days after receiving the draft plan. The commission shall discuss and consider any revisions suggested by the governing boards to the draft master plan.

(f) (I)

(A) The commission, in collaboration with the public institutions of higher education, shall ensure that the master plan is implemented through the public institutions of higher education, including through funding allocated pursuant to part 3 of article 18 of this title 23 and section 23-41-104.6. The department shall submit a budget request pursuant to section 23-18-307 that supports master plan goals.

(B) The department and public institutions of higher education shall annually affirm the institutions' contribution toward meeting the goals of the commission's master plan created pursuant to this section. An institution's contributions toward meeting the goals of the master Colorado Revised Statutes 2018 Page 24 of 635 Uncertified Printout plan must be outlined in accordance with the institution's role and mission and shall include, at a minimum, increasing credential completion, increasing annual completions by minority and low-income students, and improving persistence and retention rates. The department shall measure an institution's contributions using data collected for state and federal reporting purposes and for populating the higher education funding model.

**TOPIC:** BEST IN CLASS: FIVE PRINCIPLES OF EFFECTIVE EDUCATOR PREPARATION

**PREPARED BY:** DR. BRITTANY LANE, DIRECTOR, EDUCATOR PREPARATION  
DR. KAREN LOWENSTEIN, EDUCATOR PREPARATION SPECIALIST

## **I. SUMMARY**

This agenda item reviews the report Best in Class: *Five Principles of Effective Educator Preparation*.

## **II. BACKGROUND**

In 2019, the Colorado Legislature enacted Senate Bill 19-190, the *Growing Great Teachers Act*. The legislation declares that “high-quality teaching is the linchpin for effective, high-quality education in the schools of the state. To be an excellent, effective educator, an individual must receive comprehensive, rigorous, and effective training in the art and science of teaching and in the skills and subjects that the individual will teach.” The *Growing Great Teachers Act* directs the Colorado Department of Education and the Colorado Department of Higher Education to review research and identify best practices for teacher preparation programs. This report responds to the 2019 statutory requirements by synthesizing current research with a set of five principles for teacher preparation programs and several best practices under each principle.

## **III. STAFF ANALYSIS**

The report describes several significant findings:

- **Core Principles of Educator Preparation**
  - **Principle 1:** Teacher preparation programs foster candidates’ deep understanding of content knowledge, content knowledge for teaching, and general pedagogical knowledge.
  - **Principle 2:** Teacher preparation programs foster candidates’ deep understanding of P- 12 learners, including their cognitive and socio-emotional development.
  - **Principle 3:** Teacher preparation programs provide intentional, coherent, and extensive clinical experiences for candidates.
  - **Principle 4:** Teacher preparation programs regularly monitor, assess, and evaluate the progress of their candidates through multiple measures to support, coach, and determine best steps with candidates.

- **Principle 5:** Teacher preparation programs engage in robust, continuous improvement efforts.
- The principles provide the necessary foundation for development and continued refinement of high-quality preparation programs.
- While all educator preparation programs must demonstrate the ways in which they operationalize each of these principles, preparation leaders must be given the professional flexibility to make decisions that best meet the local needs of the communities and schools that they serve.

These identified best practices are informing changes to C.R.S. 23-1-121 and subsequent changes to [CCHE Policy I \(P\)](#) regarding the approval and reauthorization of educator preparation programs.

#### **IV. STAFF RECOMMENDATIONS**

**This is an information item only; no formal action is required by the Commission.**

**2018-2019 Educator Preparation Report Forthcoming**

**CDHE Policy Revisions Forthcoming: It will be available here:**

<https://highered.colorado.gov/Academics/TeacherEd/>



## COLORADO COMMISSION ON HIGHER EDUCATION

- Chair Tom McGimpsey (*R-2<sup>nd</sup> Congressional District*) 1<sup>st</sup> term ends June 2021
- Vice Chair Vanecia Kerr (*D- 6<sup>th</sup> Congressional District*) 1<sup>st</sup> term ends June 2018
- Commissioner Paul Berrick Abramson (*U-7<sup>th</sup> Congressional District*) 1<sup>st</sup> term ends July 2023
- Commissioner Mary Beth Buescher (*D-3<sup>rd</sup> Congressional District*) 1<sup>st</sup> term ends June 2020
- Commissioner Luis Colón (*R-4<sup>th</sup> Congressional District*) 2<sup>nd</sup> term ends June 2021
- Commissioner Cassie Gannett (*U-5<sup>th</sup> Congressional District*) 1<sup>st</sup> term ends June 2020
- Commissioner Sarah Hughes (*D-3<sup>rd</sup> Congressional District*) 1<sup>st</sup> term ends July 2023
- Commissioner Charlotte Olena (*D-1<sup>st</sup> Congressional District*) 1<sup>st</sup> term ends July 2023
- Commissioner Brittany Stich (*D-1<sup>st</sup> Congressional District*) 1<sup>st</sup> term ends July 2022
- Commissioner Steven Trujillo (*D-3<sup>rd</sup> Congressional District*) 1<sup>st</sup> term ends July 2023
- Commissioner Eric Tucker (*U-5<sup>th</sup> Congressional District*) 1<sup>st</sup> term ends July 2023

## ADVISORY COMMITTEE

### Legislative Advisors

- Representative Julie McCluskie, *House Majority Appointment*
- Representative Cathy Kipp, *House Majority Appointment*
- Representative Kevin Van Winkle, *House Minority Appointment*
- Senator Nancy Todd, *Senate Majority Appointment*
- Senator Tammy Story, *Senate Majority Appointment*
- Senator Paul Lundeen, *Senate Minority Appointment*

### Subject Matter Advisors

- Mr. Wayne Artis, *Faculty Representative*
- Mark Cavanaugh, *IHEC Representative*
- Mr. Brad Baca, *Institutional Finance Representative*
- Dr. Rick Miranda, *Academic Council Representative*
- Ms. Misti Ruthven, *K-12 Representative*
- Ms. Christina Powell, *Parent Representative*
- Mr. David Olguin, *Student Representative*





## INSTITUTION AND SYSTEM LEADERS

<u><b>INSTITUTION</b></u>	<u><b>CEO</b></u>	<u><b>LOCATION</b></u>
<b>Adams State University</b>	Dr. Cheryl Lovell, President	Alamosa
<b>Aims Community College</b>	Dr. Leah Bornstein, President	Greeley
<b>Community College System</b>	Joe Garcia, Chancellor	Denver
Arapahoe CC	Dr. Diana Doyle, President	Littleton
Colorado Northwestern CC	Ron Granger, President	Rangely
CC of Aurora	Dr. Betsy Oudenhoven, President	Aurora
CC of Denver	Dr. Everette Freeman, President	Denver
Front Range CC	Andy Dorsey, President	Westminster
Lamar CC	Dr. Linda Lujan, President	Lamar
Morgan CC	Dr. Curt Freed, President	Ft. Morgan
Northeastern JC	Jay Lee, President	Sterling
Otero JC	Dr. Timothy Alvarez, President	La Junta
Pikes Peak CC	Dr. Lance Bolton, President	Colorado Springs
Pueblo CC	Dr. Patty Erjavec, President	Pueblo
Red Rocks CC	Dr. Michele Haney, President	Lakewood
Trinidad State JC	Dr. Rhonda Epper, President	Trinidad
<b>Colorado Mesa University</b>	Tim Foster, President	Grand Junction
<b>Colorado Mountain College</b>	Dr. Carrie Besnette Hauser, President	Glenwood Springs
<b>Colorado School of Mines</b>	Paul Johnson, President	Golden
<b>Colorado State System</b>	Dr. Tony Frank, Chancellor	Denver
CSU-Ft Collins	Dr. Joyce McConnell, President	Fort Collins
CSU-Pueblo	Dr. Timothy Mottet, President	Pueblo
CSU-Global Campus	Dr. Becky Takeda-Tinker, President	Greenwood Village
<b>CU System</b>	Mark Kennedy, President	Denver
CU – Boulder	Dr. Philip DiStefano, Chancellor	Boulder
UCCS	Dr. Venkat Reddy, Chancellor	Colorado Springs
UCD	Dr. Dorothy Horrell, Chancellor	Denver
UC-Anschutz	Don Elliman, Chancellor	Aurora, Denver
<b>Emily Griffith Technical College</b>	Stephanie Donner, Executive Director	Denver
<b>Ft. Lewis College</b>	Dr. Tom Stritikus, President	Durango
<b>Metropolitan State University of Denver</b>	Janine Davidson, President	Denver



<b>Pickens Technical College</b>	Teina McConnell, Executive Director	Aurora
<b>Technical College of the Rockies</b>	Michael Klouser, Director	Delta
<b>University of Northern Colorado</b>	Dr. Andy Feinstein, President	Greeley
<b>Western State Colorado University</b>	Dr. Gregory Salsbury, President	Gunnison

## COLORADO COMMISSION ON HIGHER EDUCATION - BYLAWS

### **Section 1. Organization and Meetings**

- 1.1 **Organization:** Pursuant to C.R.S. §23-1-102, the Commission shall consist of eleven members appointed by the Governor with the consent of the Senate. The members of the Commission are selected on the basis of their knowledge of and interest in higher education and shall serve for four-year terms. No member of the Commission may serve more than two consecutive full four-year terms.
- 1.2 **Officers:** Pursuant to C.R.S. §23-1-110, the officers of the Commission shall be the Chair and Vice Chair. The Secretary shall be the Executive Director of the Commission and the Department and is a non-voting member of the Commission. The Governor appoints, with the consent of the Senate, the Executive Director to serve as the executive officer of the Commission and the Department.
- 1.3 All officers shall be elected at the May meeting of the Commission to serve a term of one year, except the Secretary whose term shall be coterminous with his or her term as Executive Director. Any member may nominate themselves or another member to be chair or vice-chair. Members will vote on each position; if there is more than one nomination the vote will be conducted by private ballot to be counted by the Secretary. Officers shall be limited to two consecutive terms, unless an exception is approved by a vote of more than 60 percent of the Commission. When possible, a Commissioner is encouraged to serve as vice-chair prior to becoming chair.
- 1.4 **Regular Meetings of the Commission:** The Commission shall adopt at the October Commission meeting a schedule of regular meetings of the Commission for the following calendar year.
- 1.3 **Notice of Meetings:** Any meetings at which the adoption of any proposed policy, position, resolution, rule, regulation, or formal action occurs or at which a majority or quorum of the body is in attendance, or is expected to be in attendance, shall be held only after full and timely notice to the public. In addition to any other means selected by the Commission for giving notice to the public, the Commission shall post notice of its meetings at the office of the Colorado Department of Higher Education located at 1560 Broadway, Suite 1600, Denver, Colorado 80202 and on the Colorado Department of Higher Education website. Notices shall be posted no less than two days prior to the holding of the meeting. The posting shall include specific agenda information where possible.
- 1.4 **Special Meetings:** Special meetings of the Commission may be held at the call of the Chair on two days' notice, or at the request of five members of the Commission who may petition the Chair to call such a meeting. Notice of special meetings shall be made electronically or by telephone and posted at the office and on the website of the Colorado

Department of Higher Education no less than two days prior to the meeting date.

- 1.5 **Conduct of Meetings:** The Chair shall preside at all meetings at which he or she is present. In the Chair's absence, the Vice Chair shall preside, and in the event both are absent, those present shall elect a presiding officer. All meetings shall be conducted in accordance with all State laws and regulations. The parliamentary rules contained in Robert's Rules of Order, latest revision, shall govern in all cases to which they are applicable, except as modified herein.
- 1.6 **Attendance at Meetings:** The term of any member of the Commission who misses more than two consecutive regular Commission meetings without good cause, as determined by the Chair, shall be terminated and his successor appointed in the manner provided for appointments under C.R.S. §23-1-102.
- 1.7 **Preparation of Agenda:** Meeting agendas shall be prepared by the Executive Director of the Department. A monthly agenda call will be scheduled with the Chair, Vice Chair, and Executive Director, or his or her designee, to discuss and approve the proposed agenda. At a regular or special meeting, an item of business may be considered for addition to the agenda by a majority vote of the Commissioners present.
- 1.8 **Minutes of the Commission:** The Secretary shall maintain an accurate set of minutes of Commission meetings, which shall include a complete record of all actions taken by the Commission. Such minutes shall constitute a permanent record. After the minutes of each meeting are completed they shall be reviewed by the Commission and, after approval, posted on the CCHE website and made available to the public for inspection upon written request.
- 1.9 **Standing Committees:** The Commission may create standing or ad hoc committees comprised of Commissioners to research and make recommendations on specific issues for the full Commission to consider and act on.

## **Section 2. Duties and Responsibilities of Officers**

- 2.1 **Chair of the Commission:** The Chair of the Commission shall preside at meetings of the Commission at which he or she is in attendance.
- 2.2 **Vice Chair of the Commission:** The Vice Chair shall perform all duties of the Chair in the Chair's absence.
- 2.3 **The Secretary/Executive Director of the Commission:** In addition to performing those duties established by law, the Executive Director of the Commission and Department shall: (a) serve as the Secretary of the Commission, (b) meet with the officers and staff of institutions of higher learning as the needs dictate for a mutual discussion of the matters affecting the responsibilities of the Commission, (c) meet with appropriate state and federal groups and/or officials on matters pertaining to the Commission, (d) meet with appropriate committees of the General Assembly on matters pertaining to the

Commission's responsibilities, (e) appoint such professional staff as in his or her judgment are required and are within the budget approved by the Commission and for which funds are available, (f) prepare an annual operating budget and work program for approval by the Commission, (g) implement the policies of the Commission and communicate those policies to interested parties as appropriate.

### **Section 3. The Advisory Committee**

3.1 There is hereby established an advisory committee pursuant to C.R.S. §23-1- 103).

Advisory Committee Members: The advisory committee shall consist of not less than thirteen members, to be designated as follows:

(a) Six members shall be appointed from the General Assembly, including three senators, two of whom shall be from the majority party, appointed by the President of the Senate and one of who shall be from the minority party appointed by the Minority Leader of the Senate, and three representatives, two of whom shall be from the majority party, appointed by the Speaker of the House of Representatives and one of who shall be from the minority party appointed by the Minority Leader of the House of Representatives. Said six members shall be appointed for terms of two years or for the same terms to which they were elected to the general assembly, whichever is the lesser. Successors shall be appointed in the same manner as the original members;

(b) One member shall be selected and designated by the Commission, as recommended by the Colorado Faculty Advisory Council, to represent the faculty in the state;

(c) One member shall be selected and designated by the Commission, as recommended by the Student Affairs Council, to represent the students in the state for a term of one year, commencing on July 1 of the year appointed;

(d) One member shall be selected and designated by the Commission who is a parent of a student enrolled in a state supported institution of higher education in Colorado to represent the parents of students for a term of two years, commencing on July 1 of the year appointed.

(e) Not more than four additional members representing educational or other groups may be selected and designated by the Commission to serve on the advisory committee.

The Commission has designated the four additional advisory committee members to represent:

- Chief Academic Officers of Colorado's state supported institutions of higher education, as recommended by the Colorado Academic Council;
- Chief Financial Officers of Colorado's state supported institutions of higher education, as recommended by the, as recommended by the Chief Financial Officers group;

- Independent Higher Education Institutions in Colorado (Colorado College, Regis, and Denver University), as recommended by the Independent Higher Education Council; and,
- The K-12 system, as recommended by the Colorado Department of Education.

All such appointments shall be for a term of two years, commencing on July 1 of the year appointed.

- 3.2 Notice and Agendas: All members of the advisory committee shall receive agendas and background material and be notified of all public meetings of the Commission and shall be invited to attend for the purpose of suggesting solutions for the problems and needs of higher education and maintaining liaison with the general assembly.
- 3.3 Recommendations of the Advisory Committee: The members of the advisory committee shall have full opportunity to present their views on any matter before the Commission.

#### **Section 4. Change in Bylaws**

- 4.1 Bylaws shall be subject to amendment at any meeting of the Commission provided any such proposed change is listed on the agenda in accordance with the procedure outlined in Section 1.5 Notice of Meetings. Bylaw changes must be approved by a majority of the Commission.

HISTORY: Adopted on September 10, 1965. Amended January 14, 1966; February 25, 1972; June 1, 1978; July 1, 1993; October 7, 2004; May 6, 2011; CCHE Agenda March 3, 2017 Item V; April 5, 2019

# Higher Education Glossary

**529 Savings Plan** - 529 plans are more than just savings accounts. These state-sponsored college savings plans were established by the federal government in Section 529 of the Internal Revenue Code to encourage families to save more for college. They offer unique state and federal tax benefits you can't get from other ways to save, making them one of the best ways to save for college.

**Accuplacer** - A suite of computer-adaptive placement tests that are used as assessment tools at institutions to evaluate the level of course work for a student. Students measured as needing additional course work will be assigned to remediation.

**Admission Standard** - includes both Freshman and Transfer standard. The freshman standard applies to all in-state and out-of-state new freshmen applicants and to transfer applicants with 12 or fewer college credit hours, except freshmen and transfer applicants who meet one of the admissions standards index exemptions. The transfer standard applies to all degree-seeking undergraduate transfer applicants with more than 12 college credit hours who do not meet one of the exemptions

**Admission Window** - Defined in Admission policy, "The maximum allowable percentage of admitted students who are not required to meet the CCHE admission standards within a specific fiscal year is referred to as the admissions window. Separate windows exist for the freshmen and transfer standards. The allowable percentage is determined by the Commission." The percentages vary by institution.

**CAP4K** - SB08-212, Preschool to Postsecondary Education Alignment Act; Colorado Achievement Plan for Kids.

**CHEA** - Council for Higher Education Accreditation. As described on their website, CHEA is "A national advocate and institutional voice for self-regulation of academic quality through accreditation, CHEA is an association of 3,000 degree-granting colleges and universities and recognizes 60 institutional and programmatic accrediting organizations."

**CIP** - Classification of Instructional Program; The purpose of which is to provide a taxonomic scheme that will support the accurate tracking, assessment, and reporting of fields of study and program completions activity. (Relevant in Role & Mission)

**CLEP** - College Level Examination Program; Earn college credit for passing a subject specific examination.

**COA** - Cost of Attendance; in the context of financial aid, it is an estimate of what it will reasonably cost the student to attend a given institution for a given period of time.

**Concurrent Enrollment** – A high school student enrolled for one or more classes at a college or university in addition to high school courses.

**Dually Enrolled** - A student enrolled at two institutions at the same time. This may affect enrollment reports when both institutions count that student as enrolled.

**EFC** - Expected Family Contribution; in the context of financial aid, it is calculated by a federally-approved formula that accounts for income, assets, number of family members attending college, and other information.

**FAFSA** - Free Application for Federal Student Aid. This is a free service provided by the Federal government under the Department of Education and students are not charged to complete/file the FAFSA.

**FAP** – Financial Aid Plan (HESP specific)

**FERPA** - Family Educational Rights and Privacy Act, view federal website. The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99) is a Federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education.

**FFS** – Fee-For-Service Contracts; A portion of the College Opportunity Fund program in addition to COF stipends, this contract provides funding to certain higher education institutions to supplement high cost programs and purchase additional services (such as graduate programs).

**Floor** - In reference to the admission window, the floor is the minimum requirements for admission without requiring an exception of some kind. This usually coincides with the Index score.

**FTE** - Full-time Equivalent; a way to measure a student's academic enrollment activity at an educational institution. An FTE of 1.0 means that the student is equivalent to full-time enrollment, or 30 credit hours per academic year for an undergraduate student.

**GEARUP** - Gaining Early Awareness and Readiness for Undergraduate Programs; A Federal discretionary grant program designed to increase the number of low-income students who are prepared to enter and succeed in postsecondary education.

**Guaranteed Transfer, GT Pathways** - gtPATHWAYS applies to all Colorado public institutions of higher education, and there are more than 900 lower-division general education courses in 20 subject areas approved for guaranteed transfer. Courses are approved at least twice per academic and calendar year and apply the next semester immediately following their approval.

**HB 1023** - In most cases, refers to HB 06S-1023, which declares "It is the public policy of the state of Colorado that all persons eighteen years of age or older shall provide proof that they are lawfully present in the United States prior to receipt of certain public benefits."

**HB 1024** - In most cases, refers to HB 06-1024, which declares "On or before September 1, 2006, each governing board of a state institution of higher education shall submit to the Colorado commission on higher education and the education committees of the senate and the house of representatives, or any successor committees, a report regarding underserved students".

**HB 1057** - In most cases, refers to HB 05-1057, which declares "a college preparation program operating within the school district that the college preparation program shall provide to the Colorado commission on higher education, on or before December 31 of each school year, a report specifying each student, by unique identifying number."

**HEAR** - Higher Education Admission Requirements, 2008-2010.

**Index, Index Score** - This index score is a quantitative evaluation that is part of a larger student application evaluation. The score is generated from academic achievement (GPA or High School Rank) and college placement tests (ACT or SAT). You can calculate your index score online. Index varies by institution depending on that institutions selection criteria.

**IPEDS** - Integrated Postsecondary Education Data System; Run by NCES, this system collects statistical data and information on postsecondary institutions. The Colorado Department of Higher Education submits aggregated data on public institutions to IPEDS.

**Need** - In the context of student financial aid, Need is calculated by the difference between the COA (Cost of Attendance) and the EFC (Expected Family Contribution)

**NCATE** - National Council for Accreditation of Teacher Education; NCATE is the profession's mechanism to help establish high quality teacher preparation.

**NCLB** - No Child Left Behind; The No Child Left Behind Act of 2001 (NCLB) reauthorized the Elementary and Secondary Education Act (ESEA) -- the main federal law affecting education from kindergarten through high school.

**PSEO** - Post Secondary Enrollment Option; A program that offers concurrent enrollment in college courses while in high school.

**PWR** - Postsecondary and Workforce Readiness; Definition was created during the SB08-212 CAP4K meetings.

**QIS** - Quality Indicator System; Implemented in HB96-1219, the specific quality indicators involved in QIS are similar to those used in the variety of quality indicator systems found in other states: graduation rates, freshmen retention and persistence rates, passing scores or rates on tests and licensure examinations, undergraduate class size, faculty teaching workload rates, and institutional support/administrative expenditures.

**REP** - Regional Education Provider; Colorado Statute authorizes Adams State College, Fort Lewis College, Mesa State College and Western State College to function as regional

educational providers and “have as their primary goal the assessment of regional educational needs...”  
Regional education providers focus their attention on a certain geographical area.

**SB 3** – In most cases refers to SB10-003, the Higher Education Flexibility Bill.

**SB 212** - In most cases, refers to HB 08-212, the CAP4K legislation.

**SBE** - State Board of Education; As described on their website, "Members of the Colorado State Board of Education are charged by the Colorado Constitution with the general supervision of the public schools. They have numerous powers and duties specified in state law. Individuals are elected on a partisan basis to serve six-year terms without pay."

**SFSF** – State Fiscal Stabilization Fund; A component of the ARRA legislation and funding.

**SURDS** - Student Unit Record Data System

**WICHE** - Western Interstate Commission for Higher Education; A regional research and policy organization that assists students, policymakers, educators, and institutional, business and community leaders. WICHE states include: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming.

**WUE** - Western Undergraduate Exchange Program, managed by WICHE