COLORADO MESA UNIVERSITY

Undergraduate Curriculum Committee
Agenda
November 13, 2014
University Center Room 221

I. Announcements

a. The proposal deadline is 11/20 for the 12/13 meeting. Please note that the subcommittee review assignments will be distributed as early as possible on Friday, 11/21 with comments due by noon on Tuesday, 11/25 (during Thanksgiving break but campus still open).

II. New Business

a. Revision to Important Dates and Deadlines for 2014-15 (attached to agenda)
   i. Deadline to submit proposals to switch Applied Studies to Essential Learning Category was extended from 11/6/14 to 12/18/14.
   ii. Essential Learning Committee minutes due by Noon on same deadline as curriculum proposals to the UCC_Chair to be considered at the next meeting.

b. New curriculum change form: Delete/Deactivate/Reactivate (attached to agenda)

III. Curriculum Proposals

a. Physical and Environmental Sciences
   i. New Program
      1. BS Chemistry, Biochemistry Concentration

b. Biology
   i. Intradepartmental change: modify a course prerequisite within the same department:
      1. BIOL 409 Gross and Developmental Human Anatomy
      2. BIOL 409L Gross and Developmental Human Anatomy Lab

   ii. Intradepartmental change: modify a course catalog description:
      1. BIOL 409 Gross and Developmental Human Anatomy
      2. BIOL 409L Gross and Developmental Human Anatomy Lab

c. WCCC: Business, Applied Science and Information Services
   i. Program Modification
      1. Agriculture Science

d. WCCC: Hospitality, Human Services, and Education
    i. Intradepartmental change: modify a course pre-requisite within the same department:
        1. EDEC 114 Introduction to Infant/Toddler Lab Techniques
        2. EDEC 290 Early Literacy for the Child
        3. EDEC 240 Curriculum and Development: Early Childhood
        4. EDEC 250: Exceptionalities in Early Childhood Education
        5. EDEC 299: Student Teaching in Early Childhood

    ii. Intradepartmental change: modify a course catalog description:
        1. EDEC 101 Introduction to Early Childhood
        2. EDEC 102 Introduction to Early Childhood Professional Lab Experiences
        3. EDEC 103 Guidance Strategies
        4. EDEC 113 Infant and Toddler Theory and Practice
        5. EDEC 114 Introduction to Infant/Toddler Lab Techniques
        6. EDEC 205 Nutrition, Health, Safety
        7. EDEC 230 Curriculum and Development Infant/Toddler
        8. EDEC 230 Curriculum and Development Infant/Toddler
        9. EDEC 230 Curriculum and Development Infant/Toddler
        10. EDEC 238 Early Childhood Development 0-8 Years
        11. EDEC 240 Curriculum and Development: Early Childhood
        12. EDEC 241 Early Childhood Administration: Human Relations
        13. EDEC 250 Exceptionalities in Early Childhood
        14. EDEC 264 Administration in Early Education
        15. EDEC 290 Early Literacy for the Young Child
        16. EDEC 299 Student Teaching in Early Education

IV. Old Business

a. SBS proposal tabled from 10/23/14:
    i. Add course to Essential Learning Category
        1. ARKE 205 Principles of Archaeology

b. Corrections needed from 10/23/14 to course addition form for ESSL 290 Maverick Milestone:

i. Prerequisites:
    1. correct misspelling of “hours”
    2. add “Permission required before enrolling in the course more than once”
    3. add “Must be taken before the student completes 75 credit hours”.

ii. Catalog description:
    1. delete last sentence: “Students must take the course before 75 hours are completed.”

V. Other

Undergraduate Curriculum Committee: Important Dates and Deadlines for Academic Year 2014-2015

Submit and discuss materials with Department Head and Department CC Rep and other affected departments.	Proposals to add or change Essential Learning courses, materials must be submitted to khaas@coloradomesa.edu.	Proposals for new/changed course catalog descriptions must be submitted to Course Description Evaluator. Proposals for new programs or courses must be submitted to Library CC Rep. Proposals for new programs must be submitted to Director of Financial Aid.	Curriculum proposals and Essential Learning Committee minutes due by Noon to Academic Affairs Office (submitted by email to UCC_Chair@coloradomesa.edu)	Proposals sent to UCC subcommittees for review	Suggestions and corrections sent back to department curriculum rep and to department heads.	Departments resubmit revisions and corrections to Academic Affairs Office (submitted by email to UCC_Chair@coloradomesa.edu).	UCC Chair adds proposals to agenda and disttributes agenda and proposals.	Curriculum committee meets to discuss and act on proposals.	Minutes sent to Curriculum Committee for approval.	Curriculum Committee approves minutes. Minutes are sent to Faculty Senate	Faculty Senate receives minutes. (Faculty Senate approval is two weeks later.)	VP of Academic Affairs Acts on All Proposals	President Acts on Substantive Changes	Board of Trustees Acts on Substantive Changes	Colorado Dept of Higher Education Acts on Substantive Changes.	Curricular Changes Appear in 2015-2016 University Catalog.
Dates and procedures vary with each department	Thursday	Thursday	Thursday	Friday	Friday	Tuesday	Thursday	Thursday	Tuesday	Wednesday	Thursday	Dates are set by appropriate authorities.				
	No curriculum proposals are entertained at August meeting.						8/21/2014	8/28/2014	9/2/2014	9/3/2014	9/4/2014					
	8/21/2014	8/28/2014	9/4/2014	9/5/2014	9/12/2014	9/16/2014	9/18/2014	9/25/2014	9/30/2014	10/1/2014	10/2/2014					Fall 2015
	9/18/2014	9/25/2014	10/2/2014	10/3/2014	10/10/2014	10/14/2014	10/16/2014	10/23/2014	10/28/2014	10/29/2014	10/30/2014					
	10/9/2014	10/16/2014	10/23/2014	10/24/2014	10/31/2014	11/4/2014	11/6/2014	11/13/2014	11/18/2014	11/19/2014	11/20/2014					
	11/6/2014	11/13/2014	11/20/2014	11/21/2014	11/28/2014	12/2/2014	12/4/2014	12/11/2014	12/16/2014	12/17/2014	12/18/2014					
	12/18/2014	12/25/2014	1/1/2015	1/2/2015	1/9/2015	1/13/2015	1/15/2015	1/22/2015	1/27/2015	1/28/2015	1/29/2015					
	1/22/2015	1/29/2015	2/5/2015	2/6/2015	2/13/2015	2/17/2015	2/19/2015	2/26/2015	3/3/2015	3/4/2015	3/5/2015					
	2/5/2015	2/12/2015	2/19/2015	2/20/2015	2/27/2015	3/3/2015	3/5/2015	3/12/2015	3/17/2015	3/18/2015	3/19/2015					Fall 2016
	No curriculum proposals are entertained at April meeting.						4/2/2015	4/9/2015	4/14/2015	4/15/2015	4/16/2015					

Deadline to submit course changes that will appear in J-Term/spring course schedule.	9/4/2014
Deadline to submit proposals to switch Applied Studies classes to Essential Learning category.	12/18/2014
Deadline to submit course changes that will appear in summer/fall course schedule.	2/5/2015
Deadline to submit program additions and changes and course additions that will appear in the 2015-2016 catalog.	2/5/2015

DEPARTMENT WORKSHEET FOR PROGRAM DELETION, DEACTIVATION, OR REACTIVATION

Colorado Mesa University Curriculum Committees

NOTE: All related course changes must be submitted on separate forms.

DEPARTMENT NAME:

Proposal Type:

PROGRAM: Degree type: Program/degree Name:
Concentration/Emphasis:

Effective Term: Effective Academic Year:

Justification for the proposed program deletion, deactivation, or reactivation (enter below):

For proposals to delete or deactivate a program, include a detailed “teach-out” plan for students currently enrolled in the program.

Discuss the proposal with all departments that might be affected by the proposal. List the departments and the date and outcome of the discussion below.

Note: Proposals to reactivate a program must include a program sheet updated for the term in which the reactivation will take effect. If a program to be reactivated requires modification, submit a modification form as well.

PROPOSED AND PREPARED BY:
Name: Date:
Email: Phone:

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: Date:

APPROVED BY DEPARTMENT HEAD:
Name: Date:

APPROVED BY DIRECTOR OF TEACHER EDUCATION (REQUIRED FOR TEACHING PROGRAMS)
Name: Date:

For Graduate Curriculum Committee: submit this form to the GCC Chair.
For Undergraduate Curriculum Committee: submit this form to Academic Affairs via email at UCC_Chair@coloradomesa.edu.
For WCCC Curriculum Committee: submit this form to the WCCC CC Chair.

DEPARTMENT WORKSHEET FOR PROGRAM ADDITION OR CHANGE
Colorado Mesa University Curriculum Committees

NOTE: All related course changes must be submitted on separate forms.

DEPARTMENT NAME: **Physical and Environmental Sciences**
If new department, please enter name:

Proposal Type: **New Program**

PROGRAM: Degree type: **BS** Program/degree Name: **Chemistry**
Concentration/Emphasis: **Biochemistry**

Effective Term: **Fall** Effective Academic Year: **2015-16**

If the proposal is to add a program, enter the required information into each text box below.

If the proposal is to modify a program, enter the applicable information into each text box below. If a text box is not applicable, type "N/A".

If the proposal is to delete, deactivate, or reactivate a program, use the Interdepartmental Change Worksheet.

Required information for each proposal for a program addition:
(see Section IV.F.C of Curriculum Manual)

a. Identifying information (see above)

b. Demonstration of compliance with CMU requirements related to student learning outcomes (SLOs):
1) Identify program student learning outcomes (SLOs)
2) Identify linkage of program SLOs to institutional SLOs
3) Illustrate relationship of SLOs to proposed curriculum using curriculum map format
4) Identify planned assessments for the program SLO.

Program SLOs (and linkages to institutional SLOs): A student who completes the B.S. in Physical Sciences with Concentration in Biochemistry will be able to:
1. Demonstrate fluency in the concepts from major fields of chemistry (organic, physical, analytical, and biochemistry...) (Specialized Knowledge)
2. Utilize mathematics to solve chemical and biological problems. (Quantitative Fluency)
3. Employ proper experimental techniques. (Applied Learning)
4. Interpret chemical and biological information from peer-reviewed publications. (Critical Thinking)
5. Communicate chemical and biological topics effectively, both verbally and in writing. (Communication Fluency)
6. Demonstrate a solid understanding of genetics, cellular, and molecular biology. (Specialized Knowledge)

Please see attachments for responses to questions 3 and 4.

c. Program goals as they pertain to Colorado Mesa University's goals and objectives and Colorado Mesa University's Role and Mission.

The program's primary goal is to encourage the study of both chemistry and biology on a single degree plan. Students currently must choose a major and then may opt to minor in the other subject, preventing significant upper division learning in the minor field. The goal harmonizes with the CMU role and mission:
Legislative Mission excerpt: "Colorado Mesa University shall also serve as a regional education provider." There are currently no biochemistry programs within 100 miles drive of Grand Junction, so the addition of such a program would

allow students wishing to study biochemistry to stay closer to home.
Institutional Mission excerpt: “Colorado Mesa University is a dynamic learning environment that offers abundant opportunities for students. . .” This program would fill a hole in the science offerings at the school and add an abundance of post graduate opportunities for students.

d. Program strengths, special features, innovations, and/or unique elements.

Biochemistry programs are common throughout the US. Colorado Mesa University is the only four-year institution of higher learning in the state of Colorado that does not have such a program. The proposed biochemistry program will bring CMU up to par with other universities in the state. The program is ideal for students pursuing careers in biochemistry and biotechnology and for students preparing for professional post-graduate studies such as medical, pharmacy, and dental schools.

e. External agencies, such as program accreditations, professional associations, as well as licensing requirements that have helped shape the program’s curriculum (i.e., effects such as length of the program, on program content or mode of delivery, etc.). Do faculty members anticipate seeking program accreditation at appropriate date?

The American Chemical Society (ACS) certifies programs in biochemistry. The proposed plan of study is aligned with current ACS requirements. We may seek program certification in the future. A major stumbling block to certification of chemistry programs at CMU is the 15 contact hour per week maximum set by ACS for certified programs.

f. Program admissions requirements (if any beyond admission to institution).

None

g. Rationale and justification for the program demonstrating the demand, as evidenced by:

(1) Employer need/demand as demonstrated by evidence such as:

(a) identification of several potential employers of program graduates;

(b) projected regional and/or statewide need for graduates from current labor market analyses and/or future workforce projections/studies (potential source: www.occsupplydemand.org/)

(c) surveys made by external agencies;

(d) letters of direct employer support may be used. Include letters indicating the availability of positions for graduates of the proposed programs, signed by individual in a senior position of authority.

(2) Student demand as demonstrated by evidence such as surveys of potential students to answer the question: “what is the student population served by program implementation?”

1. The Bureau of Labor Statistics reports: “Employment of biochemists and biophysicists is projected to grow 19 percent from 2012 to 2022, faster than the average for all occupations. More biochemists and biophysicists will be needed to use the knowledge they have gained from basic research to develop biological products and processes that improve our lives.” Source: http://www.bls.gov/ooh/life-physical-and-social-science/biochemists-and-biophysicists.htm

2. Demonstrated Student Interest in the Biochemistry Major:

162 current chemistry and biology students were surveyed in the YES/NO format to assess interest in the biochemistry major.

a. When asked, “Regardless of where you are in your major, is this a degree that is interesting to you?, 132

of the 162 students responded, “YES.”

b. When asked, “Are you interested in possibly switching your major to biochemistry?”, 61 of 162 students responded, “YES.”

The survey results demonstrate strong interest in the biochemistry degree among current chemistry and biology students. It is estimated that a small percentage (10-25%) of the students who were interested in possibly becoming biochemistry majors might actually do so. Thus, we predict 10-15 students who would declare their major to be “Chemistry with a Concentration in Biochemistry” in the 2015-2016 academic year.

h. Relationship of the proposed program to existing programs on campus and to similar programs within the state, with a rationale reflecting that proposed program demand cannot be met by another program (i.e., program implementation is not an unnecessary duplication).

On campus: The proposed program is a chemistry track with strong biological elements. Chemistry students may take the extra biology courses on their own, but it would be impossible to graduate in 120 credits. Likewise, biology students can take the additional chemistry courses, but again, it would be impossible for such a student to graduate in 120 credits. This program allows students with strong interest in both areas to earn a degree in 120 credits taking courses that are on the important juncture between biology and chemistry.
Existing programs: The proposed program is similar in nature and scope to many of the programs around Colorado and the country. Its addition would fill a void in our current offerings.

i. Curriculum, including identification of new courses and the numbers, names, and sequencing of all courses, as well as demonstration of compliance with CMU's Credit Hour Policy as required by the U.S. Department of Education and articulated by the Higher Learning Commission;

All courses for this program are already existing. Biochemistry II was approved by the curriculum committee during the 2012-2013 academic year. The curriculum is spelled out on the program sheet. It is duplicated here:

FOUNDATION COURSES (21 semester hours) A “C” or higher is required in all foundation courses

BIOL 105	Attributes of Living Systems	3
BIOL 105L	Attributes of Living Systems Lab	1
MATH 151	Calculus I	2
MATH 152	Calculus II	5
PHYS 131	Fundamental Mechanics	
OR		4
PHYS 111	General Physics	
PHYS 131L	Fundamental Mechanics Laboratory	
OR		1
PHYS 111L	General Physics Laboratory	
PHYS 132	Electromagnetism & Optics	
OR		4
PHYS 112	General Physics	
PHYS 132L	Electromagnetism & Optics Laboratory	
OR		1
PHYS 112L	General Physics Laboratory	

CHEMISTRY MAJOR – BIOCHEMISTRY CONCENTRATION

REQUIREMENTS (54 semester hours) A “C” or higher is required in all major courses

Core Physical Sciences-Chemistry and Biology Courses (51 semester hours) All students must complete the following courses.

BIOL 301	Principles of Genetics	3
BIOL 301L	Principles of Genetics Lab	1

BIOL 302	Cellular Biology	3
BIOL 371L	Lab Investigations in Cellular and Molecular Biology	3
CHEM 131	General Chemistry	4
CHEM 131L	General Chemistry Lab	1
CHEM 132	General Chemistry	4
CHEM 132L	General Chemistry Lab	1
CHEM 301	Analytical Chemistry	3
CHEM 301L	Analytical Chemistry Lab	1
CHEM 311	Organic Chemistry	4
CHEM 311L	Organic Chemistry Lab	1
CHEM 312	Organic Chemistry	4
CHEM 312L	Organic Chemistry Lab	1
CHEM 315	Biochemistry I	3
CHEM 315L	Biochemistry I Lab	1
CHEM 316	Biochemistry I I	3
CHEM 321	Physical Chemistry I	3
CHEM 341	Advanced Laboratory I	2
CHEM 442	Communication in Chemistry	1

Restricted Electives (7 Semester Hours) Courses to be chosen from the list on page 3, no more than 4 semester hours can come from CHEM 397, CHEM 487, CHEM 497 OR BIOL 387 and BIOL 487

RESTRICTED ELECTIVES

BIOL 310	Developmental Biology	(3)
BIOL 310L	Developmental Biology Lab	(2)
BIOL 341	General Physiology	(3)
Biol 341L	General Physiology Lab	(1)
BIOL 343	Immunology	(3)
BIOL 350	Microbiology	(3)
BIOL 350L	Microbiology Lab	(1)
BIOL 387	Structured Research	(1-3)
CHEM 396	Topics	(1-3)
BIOL 403	Evolution	(3)
BIOL 425	Molecular Genetics	(3)
BIOL 441	Endocrinology	(3)
BIOL 442	Pharmacology	(3)
BIOL 487	Advanced Research	(1-3)
CHEM 322	Physical Chemistry II	(3)
CHEM 351	Inorganic Chemistry I	(3)
CHEM 352	Inorganic Chemistry II	(3)
CHEM 421	Advanced Organic Chemistry I	(3)
CHEM 422	Advanced Organic Chemistry II	(3)
CHEM 431	Instrumental Analysis	(3)
CHEM 431L	Instrumental Analysis Lab	(1)
CHEM 397	Structured Research	(1-3)
CHEM 487	Formal Research	(1-3)
CHEM 494	Seminar	(1)
CHEM 496	Topics	(3)
CHEM 497	Structured Research	(1-3)

j. List of faculty and their qualifications. (Is there a need for additional faculty?)

Although our biochemistry specialist will bear an important load in the upper division coursework for biochem concentration students, all chemistry faculty will be involved in the program at some level.
Kimberly White (Sperling), Ph.D. University of California, Santa Cruz. (Biochemistry focus)
Other chemistry faculty:
James Ayers, Ph.D. Stanford University
Tim D'Andrea, Ph.D. University of Colorado Boulder
Sam Lohse, Ph.D. University of Oregon
Joe Richards, Ph.D. University of North Carolina
David Weinberg, Ph.D. California Institute of Technology
At the current time, no new full-time faculty lines are anticipated. We do anticipate one additional section of biochemistry laboratory (CHEM 315L) may need to be offered. This would require a shift in load so that Dr. White or another faculty member can teach this lab. The chemistry program would likely have to find a temporary faculty member to teach one lower division lab so that tenured or tenure-track faculty can teach the additional biochemistry lab.

k. Description of learning resources needed for implementation. Scope and quality of library holdings, laboratories, clinical facilities, and technological support as applicable. Department's recommendations for additions to the Library's collection.

Library holdings seem appropriate, especially with the library's commitment to obtain SciFinder Scholar, a chemical knowledge database. Although this program does not require new laboratory space because there are no additional classes, laboratory space is tight in the chemistry program. We anticipate an additional section of biochemistry I lab (CHEM 315L) may be needed. There is currently room for this lab.

l. Intended delivery mode for program. For programs delivering any of its coursework via 1) alternative formats, 2) outsourcing, and/or 3) a consortial relationship, the program proposal must demonstrate compliance with requirements as specified by the U.S. Department of Education and articulated in the Higher Learning Commission's policies. To demonstrate this compliance, the proposing department must submit a statement from the VPAA's office.

We currently plan to offer all courses in a traditional face-to-face format on campus.

m. For Professional, Technical or Other Programs, the justification must include:

(1) Rationale for program to be in the PTO category.
(2) Statement as to how the curriculum aligns to the requirements or recommendations of the nationally recognized accrediting, licensing, certifying or professional organization.
(3) Rationale for the program to exceed 60 credit hours, if applicable.
(4) Rationale for prescribing General Education courses, if applicable.
(5) Rationale for prescribing Applied Studies courses, if applicable.
(6) Explanation as to how a transfer student with an AA degree in the discipline of that program can graduate by completing only an additional 60 hours.

N/A

n. Enrollment Projections, Table 1. (at end of this document)

o. Physical Capacity Estimates, Table 2. (at end of this document)

p. Program Costs – Projected Expense and Revenue Estimates, Table 3. (at end of this document)

Required information for a program modification:

If change to program name, enter new name:
If change to the concentration/emphasis, enter:
Is there a revision to the program sheet?

In addition to providing all of the above information, also accomplish the following:

1. Discuss the proposal with all departments affected by the program
2. If this proposal is for a program addition, complete the three CDHE tables at the end of this document.
3. If this proposal is for a program addition, submit complete program sheet. If this proposal is for a program modification, submit current program sheet marked up with all proposed changes.
4. Submit this completed form to the Library's Curriculum Committee representative a week prior to the published proposal submission deadline.
5. Obtain departmental approval according to department-specific procedures.

* The most up-to-date program sheets are available as Word documents at R:\Curriculum\Program Sheets for Curriculum Program Modifications.

PROPOSED AND PREPARED BY:
Name: **Kimberly White and James Ayers** Date: **10/22/2014**
Email: **kiwhite@coloradomesa.edu, jayers@coloradomesa.edu** Phone: **x1529/x1575**

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Scott Kessler** Date: **10/23/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **Russ Walker** Date: **10/23/14**

APPROVED BY DIRECTOR OF TEACHER EDUCATION (REQUIRED FOR TEACHING PROGRAMS)
Name: Date:

For Graduate Curriculum Committee: submit this form to the GCC Chair.

For Undergraduate Curriculum Committee: submit this form to Academic Affairs via email at UCC_Chair@coloradomesa.edu.

For WCCC Curriculum Committee: submit this form to the WCCC CC Chair.

TABLE 1: ENROLLMENT PROJECTIONS

Name of Program: PES, Chemistry

Degree Title B. S. Chemistry, Concentration in Biochemistry

Name of Institution: Colorado Mesa University

DEFINITIONS:

Academic year is the period beginning July 1 and concluding June 30.

Headcount projections represent an unduplicated count of those students officially admitted to the program and enrolled at the institution during the academic year.

FTE is defined as the full-time equivalent number of those students majoring in the program, regardless of the classes enrolled, during the academic year.

Program graduate is defined as a student who finishes all academic program requirements and graduates with a formal award within a particular academic year.

SPECIAL NOTES:

To calculate the annual headcount enrollment, add new enrollees to the previous year headcount and subtract the number who graduated in the preceding year. Adjust by the anticipated attrition rate.

To calculate FTE, multiply the number of students times the projected number of credit hours degree seeking students will be typically enrolled in per year and divide by 30.

The data in each column is the annual **unduplicated** number of declared program majors. Since this table documents program demand, course enrollments are not relevant and shall not be included in the headcount or FTE data.

		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Full Implementation
1-a	In-state Headcount	13	18	27	36	36	36
1-b	Out-of-State Headcount	2	2	3	4	4	4
2	Program Headcount	15	20	30	40	40	40
3-a	In-state FTE	13	18	27	36	36	36
3-b	Out-of-State FTE	2	2	3	4	4	4
4	Program FTE	15	20	30	40	40	40
5	Program Graduates	3	6	8	8	8	8

Note: These numbers are for the biochemistry portion of the chemistry department only. We anticipate about 40% of these students will come from existing chemistry majors, 40% existing biology majors, and 20% either other majors on campus or students who would have pursued degrees elsewhere but choose CMU due to the new biochemistry concentration.

_____ _____

Signature of Governing Board Officer Date

TABLE 2: PHYSICAL CAPACITY ESTIMATES

Name of Program: BS Chemistry, Concentration in Biochemistry

Name of Institution: Colorado Mesa University

Purpose: This table documents the physical capacity of the institution to offer the program and/or the plan for achieving the capacity. Complete A or B.

Part A

I certify that this proposed degree program can be fully implemented and accommodate the enrollment projections provided in this proposal without requiring additional space or renovating existing space during the first five years.

_____ _____

Governing Board Capital Construction Officer Date

Part B

	Column 1	Column 2	Column 3		Column 4		Column 5	Column 6
ASSIGNABLE SQUARE FEET	TOTAL NEEDED	AVAILABLE	RENOVATION		NEW CONSTRUCTION		LEASE/ RENT	REVENUE SOURCE*
TYPE OF SPACE			Immed	Future	Immed	Future		
Classroom	Needed = Available		0	0	0	0	0	-
Instructional Lab	~7750 sq ft	~7750 sq ft	0	0	0	0	0	-
Offices	630 sq ft	630 sq ft	0	0	0	0	0	-
Study	120 sq ft	120 sq ft	0	0	0	0	0	-
Special/ General Use	0	0	0	0	0	0	0	-
Other	0	0	0	0	0	0	0	-
TOTAL	8500 sq ft	8500 sq ft	0	0	0	0	0	-

* Capital Construction Fund (CCF), Research Building Revolving Fund (RBRF), Gift (GIFT), Grant (GR), Auxiliary Fund (AUX)

Attach a narrative describing the institutional contingency plan that addresses the space requirements of the proposed program or alternative delivery options, in the event that the request for capital construction or renovation is not approved.

_____ _____

Governing Board Capital Construction Officer Date

TABLE 3 – PROJECTED EXPENSE AND REVENUE ESTIMATES

All cost and revenue projections should be in constant dollars (do not include an inflation factor).

		ESTIMATED AMOUNT IN DOLLARS (PV)				
		Year 1	Year 2	Year 3	Year 4	Year 5
Operating Expenses:						
1	Faculty	0	0	850	850	850
2	Financial Aid specific to program	0	0	0	0	0
3	Instructional Materials	4,560	6,080	9,120	12,160	12,160
4	Program Administration	0	0	0	0	0
5	Rent/Lease	0	0	0	0	0
6	Other Operating Costs	0	0	0	0	0
7	Total Operating Expenses	4,560	6,080	9,970	13,010	13,010
Program Start-Up Expenses						
8	Capital Construction	0	0	0	0	0
9	Equipment Acquisitions	0	0	0	0	0
10	Library Acquisitions	0	0	0	0	0
11	Total Program Start-Up Exp.	0	0	0	0	0
TOTAL PROGRAM EXPENSES						
Enrollment Revenue						
12	General Fund: State Support	0	0	0	0	0
13	Cash Revenue: Tuition	86,919	115,083	173,838	231,786	231,786
14	Cash Revenue: Fees	0	0	0	0	0
Other Revenue						
15	Federal Grants	0	0	0	0	0
16	Corporate Grants/Donations	0	0	0	0	0
17	Other fund sources *	0	0	0	0	0
18	Institutional Reallocation **	0	0	0	0	0
TOTAL PROGRAM REVENUE		86,919	115,083	173,838	231,786	231,786

** If revenues are projected in this line, please attach an explanation of the specific source of the funds. If reallocated, the specific departments and the impact the dollars will have on the departments that will provide the reallocated dollars.

_____ _____ _____

Signature of Governing Board Financial Officer Title Date

Attachment 1 – Relationship of SLOs to proposed curriculum

		1. Demonstrate fluency in the concepts from the major fields of chemistry (organic, physical, analytical, and biochemistry ...) (Specialized Knowledge)	2. Utilize mathematics to solve chemical and biological problems. (Quantitative Fluency)	3. Employ proper experimental techniques. (Applied Learning)	4. Interpret chemical and biological information from peer-reviewed publications. (Critical Thinking)	5. Communicate chemical and biological topics effectively, both verbally and in writing. (Communication Fluency)	6. Demonstrate a solid understanding of genetics, cellular, and molecular biology. (Specialized Knowledge)
Requirements							
Biol	105						X
Biol	105L						X
Biol	301					X	X
Biol	301L			X		X	X
Biol	302					X	X
Biol	371L			X			
Chem	131	X	X				
Chem	131L	X	X	X			
Chem	132	X	X				
Chem	132L	X	X	X			
Chem	301	X	X				
Chem	301L	X	X	X			
Chem	311	X					
Chem	311L	X		X			
Chem	312	X					
Chem	312L	X		X			
Chem	315	X	X				X
Chem	315L	X	X	X			X
Chem	316	X			X	X	X
Chem	321	X	X				
Chem	341	X	X	X	X		
Chem	442	X			X	X	
Electives							
Biol	310				X	X	X
Biol	310L			X	X	X	X
Biol	341						X
Biol	341L						
Biol	343						X
Biol	350						X
Biol	350L			X	X		X
Biol	387			X			X
Biol	403				X	X	X
Biol	425				X	X	X
Biol	441				X	X	X

Biol	442						X
Biol	487			X			X
Chem	312	X		X			X
Chem	351	X			X	X	
Chem	352	X			X	X	
Chem	396	X					
Chem	422	X			X	X	
Chem	431	X	X				
Chem	431L	X	X	X		X	
Chem	397	X		X			
Chem	487	X		X			
Chem	494	X					
Chem	497	X		X			

Attachment 2 – Planned Assessment for the Program's SLOs

Program Name: Chemistry: Concentration in Biochemistry
Date: 10/16/14

Program Outcomes	Courses/Educational Strategies Indicate if outcome is Beginning (B), Developing (D) or Advanced (A)	Assessment Method(s)	Time of Data Collection/ Person Responsible	Results of Assessment	Actions Taken
Outcome #1 Demonstrate fluency in the concepts from the major fields of chemistry (organic, physical, analytical, and biochemistry ...) (Specialized Knowledge)	CHEM 132: General Chemistry II (B); CHEM 312: Organic Chemistry II (D); CHEM 315: Biochemistry I (D); CHEM 442: Communicating in the World of Chemistry	**What:** ACS General Chemistry Exam **How:** Delivered as the final exam in CHEM 132 **What:** CHEM 312 final exam standardized across CHEM 312 sections **How:** Delivered as the final exam in CHEM 312 **What:** CHEM 315 final exam standardized across CHEM 315 sections **How:** Delivered as the final exam in CHEM 315 **What:** The ETS Major Field Test **How:** Seniors are required to	**Who:** All professors teaching CHEM 132 **When:** As the final exam for every CHEM 132 section in all semesters. **Who:** All professors teaching CHEM 312 **When:** As the final exam for every CHEM 312 section; these all occur in spring semesters **Who:** All professors teaching CHEM 315 **When:** As the final exam for every CHEM 315 section; these all occur in fall semesters **Who:** The CMU Testing Center will administer the test, and a spring semester CHEM 442 instructor will	**Results:** **Key Findings:** **Conclusions:**	**Action:** **Re-evaluation Date:**

	(A)	take this test before they can graduate	collect the results. **When:** Seniors will take this test during the semester before they graduate, and the results will be collected at the end of every spring semester		
Outcome #2 Utilize mathematics to solve chemical and biological problems. (Quantitative Fluency)	CHEM 131: General Chemistry I (B); CHEM 341: Advanced Laboratory I (A)	**What:** A stoichiometry problem on the CHEM 131 final exam that includes percent yield and multiple unit conversions. **How:** Delivered as a short answer problem on the CHEM 131 final exam. The final answer will be assessed as right or wrong, and a rubric will be assess their translation of the chemical problem into a mathematical problem, and their method of solving this problem. **What:** Journal-style laboratory write-up on a CHEM 341 rate analysis project **How:** Students are required to compose journal-style laboratory reports on every CHEM 341 project. Their report on this project will be assessed for their application of mathematics to determine a rate law and for their application of the results to proposing a reaction mechanism. These will be assessed using rubrics that rate them on scales of 1 – 5.	**Who:** All professors teaching CHEM 131 **When:** On the final exam for every CHEM 131 section in all semesters. **Who:** The physical chemistry professor teaching CHEM 341 **When:** During every section of CHEM 341. There is typically only one section of CHEM 341 offered every year, and it is offered during the spring semester.	**Results:** **Key Findings:** **Conclusions:**	**Action:** **Re-evaluation Date:**
Outcome #3 Employ proper experimental techniques. (Applied Learning)	CHEM 132L: General Chemistry II Laboratory (B) CHEM 341: Advanced Laboratory I (A)	**What:** Students will synthesize a compound and analyze its kinetics **How:** Faculty teaching labs will report the number of successful and unsuccessful lab groups in each lab section for the synthesis during week one of the lab. They will then report the rate law constants for all groups. **What:** A lab involving the determination of a rate law **How:** Students will extract a rate law constant from data obtained in lab. The constant will be compared to either a literature value or the instructor's value for the rate law constant. The percent	**Who:** All professors teaching CHEM 132L **When:** Every spring semester. **Who:** The physical chemistry professor teaching CHEM 341 **When:** During every section of CHEM 341. There is typically only one section of CHEM 341 offered every year, and it is offered during the spring semester.	**Results:** **Key Findings:** **Conclusions:**	**Action:** **Re-evaluation Date:**

		deviation from one of these known values will be reported in the student's lab report			
Outcome #4 Interpret chemical information from peer-reviewed publications. (Critical Thinking)	CHEM 341: Advanced Laboratory I (A) Chem 316: Biochemistry II (D)	**What:** Development of a procedure for the synthesis of a compound via combining and adapting at least two peer-reviewed publications. **How:** Students are required to develop a procedure for the synthesis of a particular transition metal complex by combining and adapting the information in at least two peer-reviewed publications. Their proposed procedures and their utilization of these procedures will be rated using rubrics on scales of 1 – 5. **What:** Create a mini-review article in the style of peer-reviewed literature. **How:** Students are required to write a review paper based on a biochemical topic of their choice and citing literature research. Student mini reviews will be rated using rubrics on scales of 1 – 5.	**Who:** The synthetic chemistry professor teaching CHEM 341 **When:** During every section of CHEM 341. There is typically only one section of CHEM 341 offered every year, and it is offered during the spring semester. **Who:** The chemistry professor teaching CHEM 316 **When:** During every section of CHEM 16. There is typically only one section of CHEM 316 offered every year, and it is offered during the spring	**Results:** **Key Findings:** **Conclusions:**	**Action:** **Re-evaluation Date:**
Outcome #5 Communicate chemical and biological topics effectively, both verbally and in writing. (Communication Fluency)	CHEM 431: Instrumental Analysis (D) CHEM 442: Communicating in the World of Chemistry	**What:** Oral Power Point presentation at the end of the course. **How:** This presentation will last approximately 15 minutes and will cover an instrumental technique of the student's choice that was not covered in CHEM 431. A Power Point presentation will be created by the students in order to aid in the oral presentation. In addition, 5-10 minutes of questions by peers and instructor will follow the presentation. This project will be assessed using a rubric that rates them on a scale of 1 – 5 for the following categories: organization; accuracy/depth of content; use/presentation of power point slides; use of language, grammar, and voice; ability to answer questions. **What:** Oral Power Point presentation at the end of the course.	**Who:** The CHEM 431 instructor. **When:** During every section of CHEM 431, which is delivered every fall semester. Students will take 431 in either the fall of their junior or senior year. **Who:** All professors teaching CHEM 442 **When:** During every section	**Results:** **Key Findings:** **Conclusions:**	**Action:** **Re-evaluation Date:**

	(A)	**How:** This presentation will last approximately 15 minutes and will cover a project from CHEM 341 (corequisite) or a topic from a recent publication in the chemical literature. A Power Point presentation will be created by the students in order to aid in the oral presentation. In addition, 5-10 minutes of questions by peers and instructor will follow the presentation. This project will be assessed using a rubric that rates them on a scale of 1 – 5 for the following categories: organization; accuracy/depth of content; use/presentation of power point slides; use of language, grammar, and voice; ability to answer questions.	of CHEM 442 There is typically only one section of CHEM 442 offered every year, and it is offered during the spring semester.		
	CHEM 341: Advanced Laboratory I (A)	**What:** Journal-style laboratory write-up on the final CHEM 341 project **How:** Students are required to compose journal-style laboratory reports on every CHEM 341 project. Their reports for the final lab will be assessed using a rubric that rates them on a scale of 1 – 5 for the following categories: organization; accuracy/depth of content; use of proper spelling, grammar, and punctuation.	**Who:** All professors teaching CHEM 341 **When:** During every section of CHEM 341. There is typically only one section of CHEM 341 offered every year, and it is offered during the spring semester.		
	CHEM 316: Biochemistry II (D)	**What:** An 8-10 minute presentation of literature research. **How:** Students are required to give an 8-10 minute presentation on a topic of their choice that cites peer-reviewed literature. Student presentations will be rated using rubrics on scales of 1 – 5.	**Who:** The chemistry professor teaching CHEM 316 **When:** During every section of CHEM 316. There is typically only one section of CHEM 316 offered every year, and it is offered during the spring semester.		
Demonstrate a solid understanding of genetics, cellular, and molecular biology. (Specialized Knowledge)	CHEM 316: Biochemistry II (A)	**What:** A question on ribosomal function on the CHEM 316 final. **How**: Students will be given the same question each year on the CHEM 316 final exam	**Who**: The chemistry professor teaching CHEM 316 **When:** During every section of CHEM 316. There is typically only one section of CHEM 316 offered every year, and it is offered during the spring semester.		

Adapted from Colorado Mesa University Chemistry Assessment Plan

2015-2016 PETITION/PROGRAM SHEET
Degree: Bachelor of Science
Major: Chemistry
Concentration: Biochemistry

About This Major . . .
Biochemistry students build a strong foundation in chemistry and apply their knowledge to problems in chemistry and biology. Students learn to critically analyze chemical structures and chemical and biochemical reactions, skills which are necessary for success in fields of biochemistry, medicinal chemistry, medicine, pharmacy and chemical biology. By taking upper division courses in chemistry and biology, biochemistry majors develop a strong understanding of both subjects. Through research under a chemistry or biology faculty member, students can enhance their laboratory and critical thinking skills.

Colorado Mesa University graduates have been successful in finding jobs in the pharmaceutical industry and in secondary education, as well as being placed in graduate, pharmacy and medical schools.

For more information on what you can do with this major, go to http://www.coloradomesa.edu/career/whatmajor.html

All CMU baccalaureate graduates are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate fluency in the concepts from major fields of chemistry (organic, physical, analytical, and biochemistry...)
2. Utilize mathematics to solve chemical and biological problems.
3. Employ proper experimental techniques.
4. Interpret chemical and biological information from peer-reviewed publications.
5. Communicate chemical and biological topics effectively, both verbally and in writing.
6. Demonstrate a solid understanding of genetics, cellular, and molecular biology.

NAME: _____ **STUDENT ID #** _____

LOCAL ADDRESS AND PHONE NUMBER: _____

_____ **( )** _____

I, (Signature)_____, hereby certify that I have completed (or will complete) all the courses listed on the Program Sheet. I have read and understand the policies listed on the last page of this program sheet. I further certify that the grade listed for those courses is the final course grade received except for the courses in which I am currently enrolled and the courses which I complete next semester. I have indicated the semester in which I will complete these courses.

_____ _____ 20____
Signature of Advisor Date

_____ _____ 20____
Signature of Department Head Date

_____ _____ 20____
Signature of Registrar Date

Students should work closely with a faculty advisor when selecting and scheduling courses prior to registration.

Degree Requirements:

- 120 semester hours total (Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher).
- 40 upper division credits (A minimum of 15 taken at the 300-400 course levels within the major at CMU).
- 2.00 cumulative GPA or higher in all CMU coursework
- A "C" or higher is required in all major and foundation courses.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- A student must follow the CMU graduation requirements either from 1) the program sheet for the major in effect at the time the student officially declares a major; or 2) a program sheet for the major approved for a year subsequent to the year during which the student officially declares the major and is approved for the student by the department head. Because a program may have requirements specific to the degree, the student should check with the faculty advisor for additional criteria. It is the student's responsibility to be aware of, and follow, all requirements for the degree being pursued. Any exceptions or substitutions must be approved by the student's faculty advisor and Department Head.
- When filling out the program sheet a course can be used only once.
- See the "Undergraduate Graduation Requirements" in the catalog for additional graduation information.

GENERAL EDUCATION REQUIREMENTS (31 semester hours)
See the current catalog for a list of courses that fulfill the requirements below. If a course is on the general education list of options and a requirement for your major, you must use it to fulfill the major requirement and make a different selection within the general education requirement.

Course No	Title	Sem.hrs	Grade	Term/Trns

English (6 semester hours, must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.)

ENGL 111	English Composition	3		
ENGL 112	English Composition	3		

Math: MATH 1XX **or higher** (3 semester hours, must receive a grade

MATH 151	Calculus I	5*		

*3 credits apply to the General Ed requirements and 2 credits apply to foundation credit

Humanities (3 semester hours)

Social and Behavioral Sciences (6 semester hours)

Natural Sciences (7 semester hours, one course must include a lab) –

History (3 semester hours)
HIST

Fine Arts (3 semester hours)

Course No	Title	Sem.hrs	Grade	Term/Trns

OTHER LOWER DIVISION REQUIREMENTS (6 semester hours)

Kinesiology (3 semester hours)

KINE 100	Health and Wellness	1		
KINA 1____		1		
KINA 1____		1		

Applied Studies (3 semester hours)

FOUNDATION COURSES (21 semester hours) A "C" or higher is required in all foundation courses.

BIOL 105	Attributes of Living Systems	3		
BIOL 105L	Attributes of Living Systems Lab	1		
MATH 151	Calculus I	2		
MATH 152	Calculus II	5		
PHYS 131	Fundamental Mechanics			
OR		4		
PHYS 111	General Physics			
PHYS 131L	Fundamental Mechanics Laboratory			
OR		1		
PHYS 111L	General Physics Laboratory			
PHYS 132	Electromagnetism & Optics			
OR		4		
PHYS 112	General Physics			
PHYS 132L	Electromagnetism & Optics Laboratory			
OR		1		
PHYS 112L	General Physics Laboratory			

CHEMISTRY MAJOR, BIOCHEMISTRY CONCENTRATION REQUIREMENTS (54 semester hours)
A "C" or higher is required in all foundation courses.

Chemistry Core Courses (27 semester hours)

CHEM 131	General Chemistry	4		
CHEM 131L	General Chemistry Lab	1		
CHEM 132	General Chemistry	4		
CHEM 132L	General Chemistry Lab	1		
CHEM 301	Analytical Chemistry	3		
CHEM 301L	Analytical Chemistry Lab	1		
CHEM 311	Organic Chemistry	4		
CHEM 311L	Organic Chemistry Lab	1		
CHEM 312	Organic Chemistry	4		
CHEM 312L	Organic Chemistry Lab	1		
CHEM 341	Advanced Laboratory I	2		
CHEM 442	Communication in Chemistry	1		

Biochemistry Concentration Courses (20 semester hours)

CHEM 315	Biochemistry I	3		
CHEM 315L	Biochemistry I Lab	1		
CHEM 316	Biochemistry II	3		
CHEM 321	Physical Chemistry I	3		
BIOL 301	Principles of Genetics	3		
BIOL 301L	Principles of Genetics Lab	1		
BIOL 302	Cellular Biology	3		
BIOL 371L	Lab Investigations in Cell Bio	3		

Restricted Electives (7 semester hours) Courses are to be chosen from the list on pg 3, no more than 4 semester hours can come from CHEM 397, CHEM 487, CHEM 497, BIOL 387, or BIOL 487):

Course	No	Title	Sem.hrs	Grade	Term/Trns

Electives (All college level courses appearing on your final transcript, **not listed above** that will bring your total semester hours to 120 hours.) (8 semester hours)

Course	No	Title	Sem.hrs	Grade	Term/Trns

RESTRICTED ELECTIVES:

CHEM 322 Physical Chemistry II (3)
CHEM 351 Inorganic Chemistry I (3)
CHEM 352 Inorganic Chemistry II (3)
CHEM 396 Topics (1-3)
CHEM 397 Structured Research (1-3)
CHEM 421 Advanced Organic Chemistry I (3)
CHEM 422 Advanced Organic Chemistry II (3)
CHEM 431/431L Instrumental Analysis and Lab (3) / (1)
CHEM 487 Formal Research (1-3)
CHEM 494 Seminar (1)
CHEM 496 Topics (3)
CHEM 497 Structured Research (1-3)

BIOL 310/310L Developmental Biology (3)/(2)
BIOL 341/314L General Physiology and Lab (3)/(1)
BIOL 343 Immunology (3)
BIOL 350/350L Microbiology and Lab (3)/(1)
BIOL 387 Structured Research (1-3)
BIOL 403 Evolution (3)
BIOL 425 Molecular Genetics (3)
BIOL 441 Endocrinology (3)
BIOL 442 Pharmacology (3)
BIOL 487 Advanced Research (1-3)

SUGGESTED COURSE SEQUENCING FOR A MAJOR IN CHEMISTRY, CONCENTRATION IN BIOCHEMISTRY

This is a recommended sequence of course work. Certain courses may have prerequisites or are offered only during the Fall or Spring semesters. It is the student's responsibility to meet with the assigned advisor and check the 2 year course matrix on the Colorado Mesa website for course availability.

FRESHMAN YEAR

Fall Semester		Hours	Spring Semester		Hours
CHEM 131	General Chemistry	4	CHEM 132	General Chemistry	4
CHEM 131L	General Chemistry Lab	1	CHEM 132L	General Chemistry Lab	1
ENGL 111	English Composition	3	ENGL 112	English Composition	3
KINE 100	Health and Wellness	1	BIOL 105	Attributes of Living Systems	3
KINA 1XX	Activity	1	BIOL 105L	Attributes of Living Systems Lab	1
General Education: Natural Science with lab		4	General Education: Social and Behavioral Sciences		3
		14			15

SOPHOMORE YEAR

Fall Semester		Hours	Spring Semester		Hours
CHEM 311	Organic Chemistry	4	CHEM 312	Organic Chemistry	4
CHEM 311L	Organic Chemistry Lab	1	CHEM 312L	Organic Chemistry Lab	1
PHYS 131	Fundamental Mechanics	4	PHYS 132	Electromagnetism & Optics	4
PHYS 131L	Fundamental Mechanics Lab	1	PHYS 132L	Electromagnetism & Optics Lab	1
MATH 151	Calculus I	5	MATH 152	Calculus II	5
		15			15

JUNIOR YEAR

Fall Semester		Hours	Spring Semester		Hours
CHEM 315	Biochemistry I	3	CHEM 316	Biochemistry II	3
CHEM 315L	Biochemistry I Lab	1	CHEM 301	Analytical Chemistry	3
BIOL 302	Cellular Biology	3	CHEM 301L	Analytical Chemistry Lab	1
General Education: Natural Science		3	BIOL 301	Principles of Genetics	3
General Education: Fine Arts		3	BIOL 301L	Principles of Genetics Lab	1
Electives		2	General Education: History		3
		15	KINA 1XX	Activity	1
					15

SENIOR YEAR

Fall Semester		Hours	Spring Semester		Hours
CHEM 321	Physical Chemistry I	3	CHEM 341	Advanced Laboratory I	2
BIOL 371L	Lab Investigations Cell Molec. Biology	3	CHEM 442	Chemistry Communication	1
Restricted Elective		3	General Education: Humanities		3
Restricted Elective		1	Restricted Elective		3
General Education: Social and Behavioral Sciences		3	Elective		3
Applied Studies		3	Elective		3
		16			15

POLICIES:

1. It is your responsibility to determine whether you have met the requirements for your degree. Please see the Catalog for a complete list of graduation requirements.
2. You must turn in your "Intent to Graduate" form to the Registrar's Office **by September 15 if you plan to graduate the following May, and by February 15 if you plan to graduate the following December**.
3. This program sheet must be submitted with your graduation planning sheet to your advisor during the **semester prior to the semester of graduation, no later than October 1 for spring graduates, no later than March 1 for fall graduates.**
4. Your advisor will sign and forward the Program Sheet and Graduation Planning Sheet to the Department Head for signature.
5. Finally, the Department Head or the department administrative assistant will take the signed forms to the Registrar's Office. (Students cannot handle the forms once the advisor signs.)
6. If your petition for graduation is denied, it will be your responsibility to reapply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.
7. NOTE: The semester before graduation, you will be required to take a Major Field Achievement Test (exit exam).

Library Program Assessment
John U. Tomlinson Library
Colorado Mesa University

Date of Assessment: ___November 3, 2014_ _____

Purpose of Assessment: ___Program Evaluation_____

Program under review: ___Chemistry, Biochemistry Emphasis __ _____

Program Level/s: _____BS_____

Liaison Signature: __Jamie Walker_____

1. Collection Assessment

   This assessment was prepared with reference to Library of Congress Subject Headings. Subject headings were chosen to reflect broad SLOs as submitted for this academic program.

   a. Reference Support: There are 18 reference books listed in the library's online catalog with a subject search of "chemistry", and 5 with the subject of "biochemistry". Online dictionaries in chemistry and biochemistry are also available through the library's Oxford Reference subscription.

   b. Monographic Sources (print and online): The library's online catalog (CMU) was searched for locally available materials including print books, e-books, videos, etc. Searches were first done for all monographic materials and then limited to those published from 2004 to current. The Prospector catalog was also searched to determine what might be readily available from other libraries without regard to date. Specific searches using subjects are presented here:

Subject Heading	CMU All	CMU 2004-	CMU E-Books	Prospector
Chemistry	943	312	198	33,469
Biochemistry	176	53	54	5,286
Chemistry, organic	165	49	35	4,077
Chemistry, Physical and theoretical	177	68	27	2,613
Chemistry, analytic	107	15	19	2,551
Genetics	488	216	95	10,263
Cytology	145	65	60	2,419
Molecular biology	174	89	90	2,590

c. Electronic Resources: The library subscribes to a number of electronic resources suitable for those researching biochemical topics. E-books grow in number each year, and the above table under Monographic Sources shows we have a significant number. Given that e-books are relatively new on the market, most of them have been published within the last 10 years. The library also subscribes to a number of article databases suitable for biochemistry as noted in the next section. Through the library's 88 databases university researchers have indexing to over 70,000 journal titles, over 30,000 of which are full text.

d. Periodicals: CMU's print chemistry journals have been switched to online access with the subscription to the ACS Publications database and so it is online journal resources that we will examine here. The Academic Search Complete database (ASC) was searched for biochemistry and related articles. ASC indexes nearly 14,000 journals with 9,000 in full-text. ASC has partial full-text coverage from current back as far as 1887, but coverage is primarily from the late 1980s onward. Also, the EBSCO Discovery Services database (EDS) was searched to uncover resources beyond ASC. EDS searches across several of CMU's databases including ASC. Results of individual searches are shown in the table below. These search results suggest there is a significant amount of material available in periodical resources, much with online full text. The library also subscribes to two American Chemical Society products: "ACS Publications" and “Scifinder". The ACS Publications database contains articles published by the American Chemical Society. These ACS materials can be discovered by searching library databases such as ASC or EDS. SciFinder provides access to the "world's most comprehensive and authoritative sources of literature in chemistry and related sciences" and is also produced by the American Chemical Society. Journal literature not available through Colorado Mesa University can be provided by the Interlibrary Loan Department. Article requests are provided through 2 programs, RapidILL and OCLC Resource Sharing. RapidILL gives access to 245 academic library journal collections. The average amount of time it takes to fill an article request is 11 hours. Most requests are filled through this program. Beyond that, OCLC Resource Sharing gives access to 72,000 library collections worldwide. Both of these programs also provide book chapters as scanned documents.

Subject Heading	Academic Search Complete	EDS
Chemistry	1,521,1569	3,468,063
Biochemistry	115,038	2,552,972
Chemistry, organic	52,370	285,400
Chemistry, Physical and theoretical	41,514	85,384
Analytical chemistry	23,722	171,899
Genetics	440,167	4,931,203

Cytology	27,239	1,262,827
Molecular biology	26,898	582,958

2. Evaluation of the total collection

    a. Strengths: All topics studied for this report have available materials; there were no areas that were lacking resources. Journals are a strength for biochemical information. CMU has access to over ten million articles of possible relevance for just the subjects listed above. Articles not otherwise available may be requested though interlibrary loan. Also available are many monographs in both print and electronic formats relevant to the program. Many not available locally can be quickly obtained though Prospector.

    b. Weaknesses: Analytical chemistry appears somewhat weak for monographs, particularly for recent materials. It may be helpful to purchase some recent materials in this and possibly some other areas.

3. Recommendations: This program adds no new courses to the curriculum. Generally existing resources should be adequate. However, faculty members should review areas that appear weak and supportive materials should be obtained where appropriate. Existing funds should be adequate to purchase new materials.

Library Director: __Sylvia Rael_____Date: _11/5/2014____

Intra-Departmental Curriculum Change Memo

Department Name: Biological Sciences

Curriculum changes not listed below cannot be submitted on this form.

Use a separate form for each category of change.

Intention	Yes	No	Required information for course modification (provide in the text boxes in this column)
Establish an experimental (i.e., topics) course.	☐	☒	Use Course Addition form. (An experimental course may be offered only twice before request for permanency.)
Modify a course prerequisite within the same department.	☒	☐	Course prefix, number, title and lists of old and new prerequisites. BIOL 409 & BIOL 409L, Gross and Developmental Human Anatomy and Lab Old Prerequisites: BIOL 209/209L and consent of instructor. New Prerequisites: BIOL 209/209L or consent of instructor.
Modify a course co-requisite within the same department.	☐	☒	Course prefix, number, title and lists of old and new co-requisites.
Modify a course title.	☐	☒	Course prefix, number, old title and new title.
Modify a course catalog description.	☐	☒	Course prefix, number, title, old catalog description and new catalog description. (New and modified course descriptions must be approved first by Course Description Evaluator.)
Establish a cross-listed course within the same department.	☐	☒	Course prefix, number, and catalog description for the existing and the dual listed course. (New and modified course descriptions must be approved first by Course Description Evaluator.)

Intention	Yes	No	Required information for program modification (submit marked up program sheet)
Modify list of recommended electives in a program.	☐	☒	Current year's program sheet marked up with proposed changes.
Modify sequencing of courses within a program.	☐	☒	Current year's program sheet marked up with proposed changes.
Modify name of an emphasis, cognate, track, or concentration.	☐	☒	Current year's program sheet marked up with proposed changes.
Modify a program that	☐	☒	Current year's program sheet marked up with proposed changes
a. does not alter faculty, space, library, lab or other resource requirements, AND b. does not alter any program student learning outcomes, AND c. does not affect any other department, AND d. does not alter student admission or graduation requirements, AND			

e. does not adversely affect student progress through the program, AND
f. does not create any hidden prerequisites.

Intention	Yes	No	Required information for program deletion, deactivation or reactivation (enter in text box below this table)
Delete a program.	☐	☒	Justification and course teach-out plan.
Deactivate a program.	☐	☒	Justification and course teach-out plan.
Reactivate a program.	☐	☒	Justification and course teach-out plan.

For program deletion, deactivation, or reactivation, type the justification for the change and the course teach-out plan below.

In addition to providing all the above information, also accomplish the following:

1. If this proposal includes a catalog description change, submit the course catalog description to the Course Description Evaluator a week prior to the published proposal submission deadline.

2. If this proposal includes a new topical course outline, submit this completed form to the Library's Curriculum Committee representative a week prior to the published proposal submission deadline.

3. Obtain departmental approval according to department-specific procedures.

PROPOSED AND PREPARED BY:
Name: **Denise McKenney** Date: **10/9/2014**
Email: dmckenne Phone: 1015

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Susan Longest** Date: **10/9/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **Denise McKenney** Date: **10/9/14**

For Graduate Curriculum Committee: submit this form to the GCC Chair.

For Undergraduate Curriculum Committee: submit this form to Academic Affairs via email at UCC_Chair@coloradomesa.edu.

For WCCC CC Curriculum Committee: submit this form to the WCCC CC Chair.

Intra-Departmental Curriculum Change Memo

Department Name: Biological Sciences

Curriculum changes not listed below cannot be submitted on this form.

Use a separate form for each category of change.

Intention	Yes	No	Required information for course modification (provide in the text boxes in this column)
Establish an experimental (i.e., topics) course.	☐	☒	Use Course Addition form. (An experimental course may be offered only twice before request for permanency.)
Modify a course prerequisite within the same department.	☐	☒	Course prefix, number, title and lists of old and new prerequisites.
Modify a course co-requisite within the same department.	☐	☒	Course prefix, number, title and lists of old and new co-requisites.
Modify a course title.	☐	☒	Course prefix, number, old title and new title.
Modify a course catalog description.	☒	☐	Course prefix, number, title, old catalog description and new catalog description. (New and modified course descriptions must be approved first by Course Description Evaluator.) BIOL 409 & BIOL 409L, Gross and Developmental Human Anatomy and Lab Old Catalog Description:Gross anatomy, embryology, radiological and cross-sectional anatomy of the human body as taught by lectures, demonstrations, and dissections of the human cadaver. Emphasis on thorax, abdomen, and extremities. Two lectures and one four-hour laboratory per week. New Catalog Description: Gross anatomy, embryology, radiological and cross-sectional anatomy of the human body via lectures, demonstrations, and dissections of the human cadaver. Emphasis on thorax, abdomen, and extremities. Two lectures and two 2-hour laboratories per week.
Establish a cross-listed course within the same department.	☐	☒	Course prefix, number, and catalog description for the existing and the dual listed course. (New and modified course descriptions must be approved first by Course Description Evaluator.)

Intention	Yes	No	Required information for program modification (submit marked up program sheet)
Modify list of recommended electives in a program.	☐	☒	Current year's program sheet marked up with proposed changes.
Modify sequencing of courses within a program.	☐	☒	Current year's program sheet marked up with proposed changes.
Modify name of an	☐	☒	Current year's program sheet marked up with proposed

emphasis, cognate, track, or concentration.			changes.
Modify a program that	☐	☒	Current year's program sheet marked up with proposed changes

a. does not alter faculty, space, library, lab or other resource requirements, AND
b. does not alter any program student learning outcomes, AND
c. does not affect any other department, AND
d. does not alter student admission or graduation requirements, AND
e. does not adversely affect student progress through the program, AND
f. does not create any hidden prerequisites.

Intention	Yes	No	Required information for program deletion, deactivation or reactivation (enter in text box below this table)
Delete a program.	☐	☒	Justification and course teach-out plan.
Deactivate a program.	☐	☒	Justification and course teach-out plan.
Reactivate a program.	☐	☒	Justification and course teach-out plan.

For program deletion, deactivation, or reactivation, type the justification for the change and the course teach-out plan below.

In addition to providing all the above information, also accomplish the following:

1. If this proposal includes a catalog description change, submit the course catalog description to the Course Description Evaluator a week prior to the published proposal submission deadline.

2. If this proposal includes a new topical course outline, submit this completed form to the Library's Curriculum Committee representative a week prior to the published proposal submission deadline.

3. Obtain departmental approval according to department-specific procedures.

PROPOSED AND PREPARED BY:
Name: **Denise McKenney** Date: **10/9/2014**
Email: dmckenne Phone: 1015

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Susan Longest** Date: **10/9/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **Denise McKenney** Date: **10/9/14**

For Graduate Curriculum Committee: submit this form to the GCC Chair.

For Undergraduate Curriculum Committee: submit this form to Academic Affairs via email at UCC_Chair@coloradomesa.edu.

For WCCC CC Curriculum Committee: submit this form to the WCCC CC Chair.

DEPARTMENT WORKSHEET FOR PROGRAM ADDITION OR CHANGE
Colorado Mesa University Curriculum Committees

NOTE: All related course changes must be submitted on separate forms.

DEPARTMENT NAME: **WCCC: Business, Applied Science, Info Services**
If new department, please enter name:

Proposal Type: **Program Modification**

PROGRAM: Degree type: **AS** Program/degree Name: **Agriculture Science**
Concentration/Emphasis:

Effective Term: **Fall** Effective Academic Year: **2015-16**

If the proposal is to add a program, enter the required information into each text box below.

If the proposal is to modify a program, enter the applicable information into each text box below. If a text box is not applicable, type "N/A".

If the proposal is to delete, deactivate, or reactivate a program, use the Interdepartmental Change Worksheet.

Required information for each proposal for a program addition:
(see Section IV.F.C of Curriculum Manual)

a. Identifying information (see above)

b. Demonstration of compliance with CMU requirements related to student learning outcomes (SLOs):
1) Identify program student learning outcomes (SLOs)
2) Identify linkage of program SLOs to institutional SLOs
3) Illustrate relationship of SLOs to proposed curriculum using curriculum map format
4) Identify planned assessments for the program SLO.

N/A

c. Program goals as they pertain to Colorado Mesa University's goals and objectives and Colorado Mesa University's Role and Mission.

N/A

d. Program strengths, special features, innovations, and/or unique elements.

N/A

e. External agencies, such as program accreditations, professional associations, as well as licensing requirements that have helped shape the program's curriculum (i.e., effects such as length of the program, on program content or mode of delivery, etc.). Do faculty members anticipate seeking program accreditation at appropriate date?

N/A

f. Program admissions requirements (if any beyond admission to institution).

N/A

g. Rationale and justification for the program demonstrating the demand, as evidenced by:

(1) Employer need/demand as demonstrated by evidence such as:

(a) identification of several potential employers of program graduates;

(b) projected regional and/or statewide need for graduates from current labor market analyses and/or future workforce projections/studies (potential source: www.occsupplydemand.org/)

(c) surveys made by external agencies;

(d) letters of direct employer support may be used. Include letters indicating the availability of positions for graduates of the proposed programs, signed by individual in a senior position of authority.Page 27 of 41

(2) Student demand as demonstrated by evidence such as surveys of potential students to answer the question: "what is the student population served by program implementation?"

N/A

h. Relationship of the proposed program to existing programs on campus and to similar programs within the state, with a rationale reflecting that proposed program demand cannot be met by another program (i.e., program implementation is not an unnecessary duplication).

N/A

i. Curriculum, including identification of new courses and the numbers, names, and sequencing of all courses, as well as demonstration of compliance with CMU's Credit Hour Policy as required by the U.S. Department of Education and articulated by the Higher Learning Commission;

N/A

j. List of faculty and their qualifications. (Is there a need for additional faculty?)

N/A

k. Description of learning resources needed for implementation. Scope and quality of library holdings, laboratories, clinical facilities, and technological support as applicable. Department’s recommendations for additions to the Library’s collection.

N/A

l. Intended delivery mode for program. For programs delivering any of its coursework via 1) alternative formats, 2) outsourcing, and/or 3) a consortial relationship, the program proposal must demonstrate compliance with requirements as specified by the U.S. Department of Education and articulated in the Higher Learning Commission's policies. To demonstrate this compliance, the proposing department must submit a statement from the VPAA’s office.

N/A

m. For Professional, Technical or Other Programs, the justification must include:

(1) Rationale for program to be in the PTO category.
(2) Statement as to how the curriculum aligns to the requirements or recommendations of the nationally recognized accrediting, licensing, certifying or professional organization.
(3) Rationale for the program to exceed 60 credit hours, if applicable.
(4) Rationale for prescribing General Education courses, if applicable.
(5) Rationale for prescribing Applied Studies courses, if applicable.
(6) Explanation as to how a transfer student with an AA degree in the discipline of that program can graduate by completing only an additional 60 hours.

N/A

n. Enrollment Projections, Table 1. (at end of this document)

o. Physical Capacity Estimates, Table 2. (at end of this document)

p. Program Costs – Projected Expense and Revenue Estimates, Table 3. (at end of this document)

Required information for a program modification:

If change to program name, enter new name:
If change to the concentration/emphasis, enter: **YES**
Is there a revision to the program sheet? **Yes**

Please type the justification for the program modification below:

To align with the Colorado State University agricultural Memorandum-of-Understanding (MOU), and align as closely as possible with the Colorado Community College System State Wide Agreement, we are proposing curriculum changes listed below:

Add two restricted electives:

Concepts of Physics	3.0	PHYS 100	3.0
Human Nutrition	3.0	BIOL 203	3.0

Adjust Suggested Advising Sheets to reflect CSU MOU check sheets.

In addition to providing all of the above information, also accomplish the following:

1. Discuss the proposal with all departments affected by the program
2. If this proposal is for a program addition, complete the three CDHE tables at the end of this document.
3. If this proposal is for a program addition, submit complete program sheet. If this proposal is for a program modification, submit current program sheet marked up with all proposed changes.
4. Submit this completed form to the Library's Curriculum Committee representative a week prior to the published proposal submission deadline.
5. Obtain departmental approval according to department-specific procedures.

* The most up-to-date program sheets are available as Word documents at R:\Curriculum\Program Sheets for Curriculum Program Modifications.

PROPOSED AND PREPARED BY:
Name: **Ben Keefer** Date: **9/4/2014**
Email: **keefer@coloradomesa.edu** Phone: **255-2754**

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Michael Carsten** Date: **9/9/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **John Sluder** Date: **9-4-2014**

APPROVED BY DIRECTOR OF TEACHER EDUCATION (REQUIRED FOR TEACHING PROGRAMS)
Name: Date:

For Graduate Curriculum Committee: submit this form to the GCC Chair.

For Undergraduate Curriculum Committee: submit this form to Academic Affairs via email at UCC_Chair@coloradomesa.edu.

For WCCC Curriculum Committee: submit this form to the WCCC CC Chair.

Intra-Departmental Curriculum Change Memo

Department Name: WCCC: Hospitality, Human Services, Education

Curriculum changes not listed below cannot be submitted on this form.

Use a separate form for each category of change.

Intention	Yes	No	Required information for course modification (provide in the text boxes in this column)
Establish an experimental (i.e., topics) course.	☐	☒	Use Course Addition form. (An experimental course may be offered only twice before request for permanency.)
Modify a course prerequisite within the same department.	☒	☐	Course prefix, number, title and lists of old and new prerequisites. EDEC 114 Introduction to Infant/Toddler Lab Techniques old: none new: EDEC 101 or EDEC 113 EDEC 290 Early Literacy for the Child old: EDEC 101 new: none EDEC 240 Curriculum and Development: Early Childhood old: EDEC 101 new: EDEC 101 or permission of instructor EDEC 250: Exceptionalities in Early Childhood Education old: EDEC 101 new: EDEC 101 or permission of instructor EDEC 299 Student Teaching in Early Childhood Old: EDEC 101 and instructors permission New: EDEC 101, EDEC 122, EDEC 240, EDEC 250, and instructors permission.
Modify a course co-requisite within the same department.	☐	☒	Course prefix, number, title and lists of old and new co-requisites.
Modify a course title.	☐	☒	Course prefix, number, old title and new title.
Modify a course catalog description.	☐	☒	Course prefix, number, title, old catalog description and new catalog description. (New and modified course descriptions must be approved first by Course Description Evaluator.)
Establish a cross-listed course within the same department.	☐	☒	Course prefix, number, and catalog description for the existing and the dual listed course. (New and modified course descriptions must be approved first by Course Description Evaluator.)

Intention	Yes	No	Required information for program modification (submit marked up program sheet)
Modify list of recommended electives in a program.	☐	☒	Current year's program sheet marked up with proposed changes.
Modify sequencing of courses within a program.	☐	☒	Current year's program sheet marked up with proposed changes.
Modify name of an emphasis, cognate, track, or concentration.	☐	☒	Current year's program sheet marked up with proposed changes.
Modify a program that	☐	☒	Current year's program sheet marked up with proposed changes

a. does not alter faculty, space, library, lab or other resource requirements, AND
b. does not alter any program student learning outcomes, AND
c. does not affect any other department, AND
d. does not alter student admission or graduation requirements, AND
e. does not adversely affect student progress through the program, AND
f. does not create any hidden prerequisites.

Intention	Yes	No	Required information for program deletion, deactivation or reactivation (enter in text box below this table)
Delete a program.	☐	☒	Justification and course teach-out plan.
Deactivate a program.	☐	☒	Justification and course teach-out plan.
Reactivate a program.	☐	☒	Justification and course teach-out plan.

For program deletion, deactivation, or reactivation, type the justification for the change and the course teach-out plan below.

In addition to providing all the above information, also accomplish the following:

1. If this proposal includes a catalog description change, submit the course catalog description to the Course Description Evaluator a week prior to the published proposal submission deadline.

2. If this proposal includes a new topical course outline, submit this completed form to the Library's Curriculum Committee representative a week prior to the published proposal submission deadline.

3. Obtain departmental approval according to department-specific procedures.

PROPOSED AND PREPARED BY:
Name: **Tammie Vail Shoultz McCole** Date: **11/2/2014**
Email: vshoultz@coloradomesa.edu Phone: x2674

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Carolyn Ferreira-Lillo** Date: **11/3/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **Sherry Schreiner** Date: **11/3/2014**

For Graduate Curriculum Committee: submit this form to the GCC Chair.

For Undergraduate Curriculum Committee: submit this form to Academic Affairs via email at UCC_Chair@coloradomesa.edu.

For WCCC CC Curriculum Committee: submit this form to the WCCC CC Chair.

Intra-Departmental Curriculum Change Memo

Department Name: WCCC: Hospitality, Human Services, Education

Curriculum changes not listed below cannot be submitted on this form.

Use a separate form for each category of change.

Intention	Yes	No	Required information for course modification (provide in the text boxes in this column)
Establish an experimental (i.e., topics) course.	☐	☒	Use Course Addition form. (An experimental course may be offered only twice before request for permanency.)
Modify a course prerequisite within the same department.	☐	☒	Course prefix, number, title and lists of old and new prerequisites.
Modify a course co-requisite within the same department.	☐	☒	Course prefix, number, title and lists of old and new co-requisites.
Modify a course title.	☐	☒	Course prefix, number, old title and new title.
Modify a course catalog description.	☒	☐	Course prefix, number, title, old catalog description and new catalog description. (New and modified course descriptions must be approved first by Course Description Evaluator.) EDEC 101 Introduction to Early Childhood Old: An overview of history, philosophy, current and legal issues, licensing and health regulations, facilities, and programming for young children. Provides prospective teachers opportunity to assess roles played in dealing with children of diverse ethnic, cultural, and economic backgrounds. Field experience includes observation and participation in school settings three hours per week. New: Includes the eight key areas of professional knowledge: Child Growth and Development; Health, Nutrition and Safety; Developmentally Appropriate Practices; Guidance; Family and Community Relationships; Diversity; Professionalism; Administration and Supervision. Overview of history and philosophy. Focuses on ages birth through age 8. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting. EDEC 102 Introduction to Early Childhood Professional Lab Experiences Old: Hands-on field experience for the student, who will demonstrate knowledge of child growth and development, guidance techniques, planning and implementation of curriculum, assessment techniques, and application of laws and standards.

			New: Field experience. Demonstrate knowledge of child growth and development, guidance techniques, planning and implementation of curriculum, assessment techniques,and application of laws and standards. Supervised placement provides opportunity to observe, to practice appropriate interactions and to develop effective guidance and nurturing techniques. Addresses ages birth through 8. Assignments include a required field experience of 60 hours. EDEC 103 Guidance Strategies Old: Techniques to enhance guidance strategies through positive social skills, violence prevention, and anger management. The importance of family and community resources will also be addressed. New: Explores guidance theories and techniques, real world applications, goals, and factors influencing expectations, classroom management issues. Techniques for prosocial skills, violence prevention, anger management and providing families with community resources discussed Focus on birth through age 8. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting EDEC 113 Infant and Toddler Theory and Practice Old: Presents an overview of theories, applications (including observations) and issues pertinent to infant and toddler development in group and/or family settings. Includes state requirements for licensing, health, safety and nutrition issues. New: Introduction to children from birth through age 3. Includes the eight key areas of professional knowledge: Child Growth and Development; Health, Nutrition and Safety; Developmentally Appropriate Practices; Guidance; Family and Community Relationships; Diversity; Professionalism; Administration and Supervision. Overview of history and philosophy of early childhood education. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting. EDEC 114 Introduction to Infant/Toddler Lab Techniques Old: Includes a classroom seminar and placement in an infant and/or toddler setting. The supervised placement provides the student with the opportunity to observe, to practice appropriate interactions and to develop effective guidance and nurturing techniques with infants and/or toddlers. Addresses ages prenatal through age 2. New: Field experience.Demonstrate knowledge of child growth and development, guidance techniques, planning and implementation of curriculum, assessment techniques,and application of laws and standards. Supervised placement provides opportunity to observe, to practice appropriate interactions and to develop effective guidance and nurturing techniques. Addresses ages birth

			through age 3 years. Assignments include a require field experience of 60 hours. EDEC 205 Nutrition, Health, Safety Old: Focuses on nutrition, health, and safety as a key factor for optimal growth and development of young children. Includes nutrient knowledge, menu planning, food program participation, health practices, management and safety, appropriate activities and communication with families. Addresses ages from prenatal through age 8. New: Focus on nutrition, health, and safety as key factors for optimal growth and development of young children. Includes nutrient knowledge, menu planning, food program participation, health practices, management and safety, appropriate activities, and communication with families. Addresses birth through age 8. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting. EDEC 230 Curriculum and Development Infant/Toddler Old: Curriculum for the age group birth-2 years. Content emphasis is on maintaining healthful, safe, environmental activities to stimulate language, social emotional, cognitive, and physical development. New: Curriculum for the age group Birth to 3 years. Emphasis on maintaining healthy, safe, environmental activities developmentally appropriate to stimulate language, social emotional, cognitive, and physical development. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting. EDEC 230 Curriculum and Development Infant/Toddler Old: Curriculum for the age group birth-2 years. Content emphasis is on maintaining healthful, safe, environmental activities to stimulate language, social emotional, cognitive, and physical development. New: Curriculum for the age group Birth to 3 years. Emphasis on maintaining healthy, safe, environmental activities developmentally appropriate to stimulate language, social emotional, cognitive, and physical development. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting. EDEC 230 Curriculum and Development Infant/Toddler Old: Curriculum for the age group birth-2 years. Content emphasis is on maintaining healthful, safe, environmental activities to stimulate language, social emotional, cognitive, and physical development. New: Curriculum for the age group Birth to 3 years. Emphasis on maintaining healthy, safe, environmental activities developmentally appropriate to stimulate language, social emotional, cognitive, and physical development. Assignments require 3 hours field experience

			and may include observation/participation in an early childhood setting. EDEC 238 Early Childhood Development 0-8 Years Old: Theories, current research and developmental ages and stages of children, conception to 8 years. New: Theories, current research and developmental ages and stages of children, conception to 8 years. Emphasizes physical, cognitive, language, social and emotional domains, concept of the whole child and how adults can provide a supportive environment. Assignments require 3 hours field experience and may include observation/participation in an early childhood setting. EDEC 240 Curriculum and Development: Early Childhood Old: Methods of creating and implementing curriculum based on their understanding of developmentally appropriate practice for children, birth to age 8. Application of the teaching/learning process, and of managing the learning environment, will draw from research and practical application. New: Methods of creating and implementing curriculum based on understanding of developmentally appropriate practice for children, birth to age 8. Application of the teaching/learning process, and of managing the learning environment, will draw from research and practical application. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting. EDEC 241 Early Childhood Administration: Human Relations Old: The roles and relationships among children, families, early childhood professionals and community resources. Consideration will be given to family structures, communication skills, roles of support organizations, team building, evaluation tools and advocacy. New: Roles and relationships among children, families, early childhood professionals, and community resources. Exploration of family structures, communication skills, roles of support organizations, team building, evaluation tools, self-reflection, and advocacy. Assignments require 3 hours field experience and may include observation/participation in an early childhood setting. EDEC 250 Exceptionalities in Early Childhood Old: Exploration of disabilities, assessment activities, and learning environments for children with diverse needs in the early years (birth-age 8). New: Presents an overview of critical elements related to educating young children who may have learning challenges and/or be advanced in the early childhood setting. Topics include the following: typical and atypical development, legal requirements, research based practices

			related to inclusion, teaming and collaboration, and accommodations and adaptations. Student will learn how different cognitive/social/physical abilities impact a young child's learning process. Includes conception to age 8. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting. EDEC 264 Administration in Early Education Old: Overview of management concepts applicable in a variety of early education settings. Course content focuses on management of programs and personnel, program and staff development, fiscal administration, and evaluation. New: Overview of management concepts applicable in a variety of early education settings. Focuses on management of programs and personnel, program and staff development, fiscal administration, and evaluation. Assignments require 3 hours field experience and may include observation/participation in an early childhood setting. EDEC 290 Early Literacy for the Young Child Old: In-depth view of early literacy development in a changing, diverse society intended for the prospective early childhood teacher. Includes research about the language and literacy of young children. Explores how learners develop the ability to communicate and interactfrom birth to age 8. New: In-depth view of early literacy development in a changing, diverse society. Intended for the prospective early childhood teacher. Includes research about the language and literacy of young children. Explores how learners develop the ability to communicate and interact from birth to age 8. Assignments require 3 hours field experience and may include observation/participation in an early childhood setting. EDEC 299 Student Teaching in Early Education Old: Full time supervised teaching experience which allows the student teacher the opportunity to apply developmentally appropriate, standards-based practice, theories, and philosophies acquired in coursework. Provides incremental responsibility for teaching, supervision, and management of young children birth to 6 years. A seminar is an integral part of the experience requirement. New: Supervised teaching experience. Allows the student teacher the opportunity to apply developmentally appropriate, standards-based practices, theories, and philosophies acquired in prior coursework. Provides incremental responsibility for teaching, supervision, and guidance of young children birth to 8 years. 300 field experience hours in an approved child care facility or school.

Establish a cross-listed course within the same department.	☐	☒	Course prefix, number, and catalog description for the existing and the dual listed course. (New and modified course descriptions must be approved first by Course Description Evaluator.)

Intention	Yes	No	Required information for program modification (submit marked up program sheet)
Modify list of recommended electives in a program.	☐	☒	Current year's program sheet marked up with proposed changes.
Modify sequencing of courses within a program.	☐	☒	Current year's program sheet marked up with proposed changes.
Modify name of an emphasis, cognate, track, or concentration.	☐	☒	Current year's program sheet marked up with proposed changes.
Modify a program that	☐	☒	Current year's program sheet marked up with proposed changes
a. does not alter faculty, space, library, lab or other resource requirements, AND b. does not alter any program student learning outcomes, AND c. does not affect any other department, AND d. does not alter student admission or graduation requirements, AND e. does not adversely affect student progress through the program, AND f. does not create any hidden prerequisites.			

Intention	Yes	No	Required information for program deletion, deactivation or reactivation (enter in text box below this table)
Delete a program.	☐	☒	Justification and course teach-out plan.
Deactivate a program.	☐	☒	Justification and course teach-out plan.
Reactivate a program.	☐	☒	Justification and course teach-out plan.

For program deletion, deactivation, or reactivation, type the justification for the change and the course teach-out plan below.

In addition to providing all the above information, also accomplish the following:

1. If this proposal includes a catalog description change, submit the course catalog description to the Course Description Evaluator a week prior to the published proposal submission deadline.

2. If this proposal includes a new topical course outline, submit this completed form to the Library's Curriculum Committee representative a week prior to the published proposal submission deadline.

3. Obtain departmental approval according to department-specific procedures.

PROPOSED AND PREPARED BY:
Name: **Tammie Vail Shoultz McCole** Date: **11/2/2014**
Email: vshoultz@coloradomesa.edu Phone: 255-2674

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Carolyn Ferreira-Lillo** Date: **11/3/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **Sherry Shreiner** Date: **11/3/2014**

For Graduate Curriculum Committee: submit this form to the GCC Chair.

For Undergraduate Curriculum Committee: submit this form to Academic Affairs via email at UCC_Chair@coloradomesa.edu.

For WCCC CC Curriculum Committee: submit this form to the WCCC CC Chair.