Undergraduate Curriculum Committee
Agenda
January 22, 2014
University Center Room 222
3:30 PM

I. Announcements

   a. The next meeting is February 26, 2015; the proposal deadline is February 5, 2015. This is the last meeting to submit changes that will appear in the summer/fall course schedule in the 2015-16 Catalog and program sheets.
   b. New form "Proposal to Modify Program Based on the Essential Learning Curriculum"

II. New Business

   a. Changes to Curriculum Policies and Procedures Manual
         i. Pg. 6- approval sequence
        ii. Pg.7- deadline to submit proposals is corrected to read three weeks instead of two.

III. Old Business

   a. Pending items from 12/11/14:

         i. Completed library assessments for:
                1. EMDP 211
                2. POLS 151, 270, 353, 354, 356, 366, 372, 373, 462, 471, 472, and 482,
                3. SOCI 270, 401, and 470.

        ii. Corrected course addition form for ARKE 410L:
                1. Change Contact Hours category from "Field: 2" to "Field: 5;"
                2. Change Type of Instructional Activity category from "Lecture" to "Field Instruction;" and
                3. Change Academic Engagement Minutes for a Term category from "1500" to "3750."

IV. Curriculum Proposals

   a. WCCC: Business, Applied Science, and Information Services

         i. Course Addition:
                1. TECI 245 Security Fundamentals

        ii. Program Modifications:
                1. Technical Certificate, Technology Integration, Certified Network Technician

2. Technical Certificate, Technology Integration, Network Technician
3. AAS, Technology Integration, Network/Telecommunication Technician

    b. WCCC: Hospitality, Human Services, and Education

      i. Course Additions:
1. CUAR 115 Introduction to Sustainable Cuisine
2. CUAR 160 Cake Decorating
3. CUAR 179 Wine, Spirits, and Beers

      ii. Course Modifications:
1. CUAR 163 Advanced Cake Decorating – Wedding
2. CUAR 281 Internship

      iii. Program Modifications:
1. AAS, Baking and Pastry
2. AAS, Culinary Arts
3. Technical Certificate, Baking and Pastry
4. Technical Certificate, Culinary Arts

    c. Biological Sciences

      i. Intra-departmental Change Memo- Course Changes:

1. Modify a course prerequisite within the same department:
   a. BIOL 341 General Physiology
   b. BIOL 341L General Physiology Laboratory
   c. BIOL 403 Evolution

      ii. Course Additions:
1. BIOL 108 Diversity of Organisms
2. BIOL 108L Diversity of Organisms Laboratory
3. BIOL 316 Animal Behavior
4. BIOL 316L Animal Behavior Lab

      iii. Course Deletions:
1. BIOL 416 Ethology
2. BIOL 416L Ethology Lab

      iv. Intra-departmental Change Memo - Program Modification:
1. BS, Biology

V. Other

Proposal to Modify Program Based on the Essential Learning Curriculum

Name of Program:

Name of Department:

The program above chooses to make the following modifications to maintain its current **total number of credit hours** (check only **one):**

_____ The program will delete one credit hour from general electives.

_____The program will delete one credit hour from the activity course requirements.

Please note any other changes to the program sheet that are **directly** related to the new Essential Learning requirements (most programs will not have any further changes):

- This form is for use only in Spring 2015.

- The form is only for submitting changes directly related to the conversion from General Education to Essential Learnings.

- The department's UCC representative should submit this form to UCC_Chair@coloradomesa.edu by February 12 in order to be considered at the March 12 UCC meeting, or by March 12 in order to be considered at the April 12 UCC meeting.

_____   _____

Signature of Department Head   Date

_____   _____

Signature of UCC Departmental Representative   Date

Pg. 6. –

2. Approval sequence

Proposing department's faculty
Proposing Department Head
Proposing department's appropriate curriculum committee representative
Heads of impacted departments
Essent~~ent~~ial Learning Subcommittee*** (via UCC_Chair@coloradomesa.edu)
Library **
Financial Aid.*
Course Description Evaluator ***
Appropriate curriculum committee's Executive Subcommittee
Appropriate curriculum committee
Faculty Senate, via appropriate curriculum committee minutes
Vice President for Academic Affairs
President
Colorado Mesa University Board of Trustees ****
Colorado Department of Higher Education *****

* For creation of programs
** For creation of programs and courses
~~–~~*** For creation and modification of courses
**** For creation of new academic programs and other substantive changes
***** For majors only

Pg.7

C. Deadlines for Submission of Proposals

1. By Noon ~~two~~three weeks prior to the meeting, curriculum proposals and other agenda items must be received by
   a. the Office of Academic Affairs for proposals to be approved by the Undergraduate Curriculum Committee or by the Graduate Curriculum Committee;
   b. the Chair of the WCCC Curriculum Committee for proposals to be approved by the WCCC Curriculum Committee.
   c. the chair of the Graduate Curriculum Committee, for proposals to be approved by the Graduate Curriculum Committee."

COLORADO MESA UNIVERSITY

DEPARTMENT WORKSHEET FOR A COURSE ADDITION
Colorado Mesa University Curriculum Committees

NOTE: Each course addition must be submitted on a separate form.

Department Name: **WCCC: Business, Applied Science, Info Services**
    If new department, please enter name:

Course prefix: **TECI**   Course number: **245**   Credit hours: **3**

Course name: **Security Fundamentals**

Course abbreviated schedule name (24 characters maximum):

Contact hours per week: Lecture   Lab   Field   Studio   Other **4.5**

Type of Instructional Activity (from Table III.2 of Curriculum Policies and Procedures Manual):
Lecture/Laboratory: Vocational/Technical

Academic engagement minutes for a term: 3375   Student preparation minutes for a term: 3375

Earliest term course can be offered: **Fall**   Earliest academic year: **2015-16**

Intended semesters for offering this course: Fall ☒   J-Term ☐   Spring ☐   Summer ☐

Is this to be a <u>general education/essential learning</u> course? **No**   If yes, which category?

If this is a general education course,essential learning course, see requirements in Section III.L. of the Curriculum Policies and Procedures Manual at http://coloradomesa.edu/facsenate/curriculumresources.html

Is this to be an experimental course? **No**   If yes, use the Intra-Departmental Curriculum Change Memo.

List all <u>prerequisites</u> for this course. If none, indicate by checking here: ☒

Course	Credit Hours	Course	Credit Hours
1.		2.	
3.		4.	
5.		6.	
7.		8.	
9.		10.	

List all <u>co-requisites</u> for this course. If none, indicate by checking here: ☒

Course	Credit Hours	Course	Credit Hours
1.		2.	
3.		4.	
5.		6.	
7.		8.	
9.		10.	

(Submit a course modification request, as required, for each course listed above.)

List all programs of study for which this course will be a <u>requirement</u> or a <u>listed choice</u>, including all degrees, majors, minors, certificates, concentrations, cognates, emphases, and options. If none, indicate by checking here: ☐

	Degree Type	Program
1.	**AAS**	**Technology Integration**
2.	**CERT**	**Technology Integration: Network Technician**
3.	**CERT**	**Technology Integration: Certified Network Technician**
4.		
5.		
6.		
7.		
8.		
9.		
10.		

**(Submit a program modification request and a revised program sheet for each program listed above.
All prerequisites to this course <u>must</u> be included in each program of study listed above.)**

List all courses for which this course is to be a prerequisite or corequisite. If none, indicate by checking here: ☐

1. **TECI 290 Certification**	2.
3.	4.
5.	6.
7.	8.
9.	10.

(Submit a course modification request, as required, for each course listed above.)

DUPLICATION: Is there overlapping content with present courses offered on campus? **No**
    If yes, explain:

FACULTY FTE: Will additional faculty FTE be required? **No**
    If yes, explain:

EQUIPMENT: Does the course require additional equipment? **No**
    If yes, explain:

LAB FACILITIES: Does the course require additional lab facilities? **No**
    If yes, explain:

Course description as it will appear in the printed catalog:
    Comprehensive overview of network security. Includes general security concepts. Communication security includes remote access, e-mail, the Web, directory and file transfer, and wireless data. Common network attacks introduced. Cryptography basics incorporated. Operational/organizational security discussed as it relates to physical security, disaster recovery, and business continuity. Computer forensics introduced.

Justification for the proposed new course (enter below):

A Brief Introduction to Networks and Network Security

Everyone in the connected world knows what a network is; it is a system of interconnected computers. The basic idea of networks allow people remote access to geographically distant resources without having to be physically present. It has also been designed to send data back and forth, to stay connected.

There are large networks and small networks, but size is irrelevant in terms of importance of network security. The purpose of network security, quite simply, is to protect the network and its component parts from unauthorized access and misuse. Networks are vulnerable because of their inherent characteristic of facilitating remote access. For example, if a hacker wanted to access a computer not on a network, physical access would be vital. However, with networks in the picture, it is possible to bypass that particular security aspect.

Therefore, it is vital for any network administrator, regardless of the size and type of network, to implement stringent security policies to prevent potential losses

- **The Importance of Network Security**

The purpose of network security is essentially to prevent loss, through misuse of data. There are a number of potential pitfalls that may arise if network security is not implemented properly.

This course will meet the Department of Defense's Directive 8570.1, which requires all individuals with privileged access to information systems to be fully skilled and certified in the secure operation of computer systems used.

Student learning outcomes:
Upon completion of this course, a student should be able to:
- Identify network attack strategies and defenses

- Understand the principles of organizational security and the elements of effective security policies

- Know the technologies and uses of encryption standards and products

- Identify network- and host-based security technologies and practices

- Describe how remote access security is enforced

- Describe the standards and products used to enforce security on web and communications technologies

- Identify strategies for ensuring business continuity, fault tolerance, and disaster recovery

Topical course outline: (List of topics only. Do not attach syllabus.)
I. *Security Fundamentals:*
   1. Security Concepts •
   2. Threats •
   3. Network Vulnerabilities

II. *Network Security*
   1. Penetration Testing •
   2. Secure Network Design •
   3. Security Appliances and Software •
   4. Network Application Security •
III. *Internet Security*
   1. Cryptography •
   2. Public Key Infrastructure •
   3. Securing Web Services •
IV. *Access Control*
   1. Remote Access Security •
   2. Authentication •
   3. Operating System Security •

    4. Wireless Access Security •

V.   Organizational Security

    1. Site Security •

    2. Next Generation Networks •

    3. Disaster Recovery and Business Continuity •

    4. Incident Response and Forensics •

    5. Operational Security

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.

NONE

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

1. Submit the course catalog description to the Course Description Evaluator a week prior to the published proposal submission deadline.

2. 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: **Jack Yon**   Date: **10/17/2014**
Email: jyon@coloradomesa.edu   Phone: 255-2609

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Carolyn Ferreira-Lillo**   Date: **10/17/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **John L. Sluder**   Date: **10-21-2014**

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.

Library Curriculum Assessment
Tomlinson Library
Colorado Mesa University

The following form is a snapshot of the library's collection in support of new curriculum areas and/or course additions.

Date of assessment: _____06 January 2015_____

Collection under review: _____TECI 245: Security Fundamentals_____

Program level: Certificate   Associates   **Bachelors**   Masters

Delivery mode: _____Lecture/Lab: Vo/Tech_____

Library Liaison: ____Cantwell, Laureen____

1. **Current Collection Review**

   a. **Reference Sources:**

   A keyword search for → network OR computers → displayed many results, 58 of which are reference titles – 11 of which we estimate would be most useful for TECI 245 students, including:

   - American Chemical Society, Coghill, A. M., & Garson, L. R. (2006). *The ACS style guide: effective communication of scientific information.* 3rd ed. / Washington, DC: Oxford ; New York: American Chemical Society.
   - Whitaker, J. C. (2005). *The electronics handbook.* 2nd ed. Boca Raton, FL: CRC Press.
   - Reilly, E. D. (2003). *Milestones in computer science and information technology.* Westport, Conn.: Greenwood Press.
   - Pountain, D. (2001). *The new Penguin dictionary of computing.* London: Penguin.
   - Reilly, E. D., Ralston, A., & Hemmendinger, D. (2000). *Encyclopedia of computer science.* 4th ed. / London: New York: Nature Pub. Group.

   b. **Monographic Sources:**

   To catch a broad swath of network security-related content within our catalog, several searches were performed. The table below details the monographic holdings of the library for those searches.

Search tactic:	Print	E-Book
"network security" (keyword)	14	102

	(7 since 2000)	
"computer security" (keyword)	222 (159 since 2000)	712
"computer security" (subject)	210 (155 since 2000)	700
LC Call Number Section	**Print**	**E-Book**
QA76 (electronic data; electronic digital computing)	964	3
TK5102 (telecommunications)	40	0

* NOTE: Items may have appeared in more than one set of search results; each list may duplicate titles from the other subject areas listed as well.

c. Periodicals (online and print):

A sampling of journal titles that have articles on network security and computing:

- *Wired* (magazine) – Science Reference Center (June 2008 to current), CMU Print (2012 to current)
- *Health Care on the Internet* – Academic Search Complete (03/00 to 03/01)
- *Health Data Management* – LexisNexis (May 1997 to current)
- *Journal of Network and Computer Applications* – Science Direct (1996 to current)
- *Journal of Parallel and Distributed Computing* – Science Direct (1993 to current)
- *First Monday: the Journal of the Internet* – DOAJ (1996 to current)
- *Computer Networks and ISDN Systems* – Science Direct (1993 to current)
- *Internet World* – Lexis Nexis (1997 to sept. 2001)
- *International Journal of Network Management* – Wiley Online (1991 to current)
- *International Journal of Network Security* – DOAJ (2005 to current)
- *Network World* – Business Source Complete (2002 – June 2013; 18 month embargo); Lexis Nexis Academic (May 1983 to current)
- *ACM Transactions on Databases Systems* – Business Source Complete (Dec 1996 to current)
- *ACM Transactions on Computer Systems* – Business Source Complete (Feb 2009 to current)
- *Advanced Computing: an International Journal* – DOAJ (2010 to current)
- *International Journal of Wireless & Mobile Networks* – DOAJ (2009 to current)

d. Electronic Resources:

Databases that have many articles and/or indexed content on network / computer security:

- Science Direct

- o A search for "network security" AND computing turns up ~1400 results to which we have immediate full-text access.
- Business Source Complete
  - o A search for "network security" AND comput* results in about 12,300 items, over 8,100 available full text, 3,100 from scholarly peer reviewed publications, and 5,700 from trade publications.
- Academic Search Complete:
  - o A search for "network security" AND comput* calls up 6,300 results, 4,700 available full text, 2,100 from scholarly peer reviewed publications, and about 2,500 from trade publications.

As the list of periodicals implies, databases like Wiley, Lexis Nexis, and the Directory of Open Access Journals (or DOAJ) will also serve as valuable resources for this, and similar, courses.

e. **Media:**

The Library subscribes to *Films on Demand* – a streaming video service from Films Media Group. This service includes educational films, documentaries, and PBS publications. These films can be accessed through course content links added to D2L, if the faculty member chooses, for convenient access to the student(s) and/or can be streamed into the physical classroom as well.

A search for networks OR security OR computing OR "information technology" OR telecommunications …results in just shy of 1600 eVideos from this collection, including:

- Films for the Humanities & Sciences (2005). *Privacy and security.*
- Films for the Humanities & Sciences (2013). *IT Networks.*
- Films for the Humanities & Sciences (2014). *Defeating the Hackers.*
- CNBC (2012). *The Future of Collaboration.*
- Cambridge Educational (2009). *Internet careers: front-end, back-end & e-everywhere.*
- Films for the Humanities & Sciences (2013). *Computing: Ancient Discoveries.*
- Falling Walls Foundation, (2013). *Breaking the Wall of Internet Censorship: How Peer-to-Peer Wireless Mesh Networks Are Replacing Centralized Connectivity.*

2. **Recommendations for additions to the collection:**

New titles for this course will be purchased on the recommendations of the departmental faculty and from standard selection sources, as needed. It would be worth seeking newer/updated reference titles, particularly in e-formats, as well as additional print / e-books focused on "network security" as we have few titles incorporating that terminology.

A list of potential titles of interest will be circulated to relevant instructors to aid in acquisition efforts for this course.

3. Analysis of library's collection:

      X This program requires no new library resources.

      ☐ Extra funding is required to adequately meet the informational needs of the program. Estimated resources needed $ _____

      ☐ No Library Assessment needed. No new content associated with this analysis.

Library Director: _____Sylvia L. Rael_____   **Date:**___12 January 2015____

COLORADO MESA
U N I V E R S I T Y

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: **CERT**   Program/degree Name: **Technology Integration**
                                Concentration/Emphasis: **Certifed Network Technician**

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.

NA

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

NA

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

NA

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?

NA

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

NA

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?"

NA

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).

NA

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;

NA

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

NA

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.

NA

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.

NA

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.

NA

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? **Yes**

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: **Jack Yon**   Date: **10/28/2014**
Email: **jyon@coloradomesa.edu**   Phone: **255-2609**

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Carolyn Ferreira-Lillo**   Date: **11/2/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **John Sluder**   Date: **11/2/2014**

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.

Program Modification Proposal

1. Program: Technical Certificate, Technology Integration, Certified Network Technician Specialization

2. Department: WCCC - Business, Applied Science, and Information Services (BASIS)

3. Faculty: Jack Yon- 255-2609 jyon@coloradomesa.edu

Justification:

The purpose for these changes were to better meet industry needs, these needs were voiced at the last advisory board meeting. Course addition of TECI 245, network security is essentially to prevent loss through misuse of data. There are a number of potential pitfalls that may arise if network security is not implemented properly. TECI 230 Cisco III is also being removed from the certificate.

The program sheet for the **Technical Certificate, Program of Study: Technology Integration, Specialization: Certified Network Technician** is changed to reflect these updates.

Award: Technical Certificate
Program of Study: Technology Integration
Specialization: Certified Network Technician

About This Certificate . . .

Students enrolled in Technology Integration learn a multitude of skills to help prepare them to enter a variety of careers related to computer systems, computer system administration and networking, and Cisco Systems Network training. This certificate program prepares students with the entry level skills and knowledge requisite to work on networks in a CISCO environment. Through this certificate, students have the opportunity to obtain the skills necessary to test for the industry certification CCNA. In addition, the courses are part of the AAS TECI Networking Emphasis degree. The CISCO program provides students with a skill set sought by employers hiring network engineer technicians.

The coursework in this certificate is aligned with national and international certifications including Cisco (CCENT/ICND1/ICND2/CCNA), A+/N+. Program content has been structured to give an entry level education to all graduates entering this field. Emphasis has been placed on providing a common core of training for all students due to the convergence of the communication industries.

The Cisco CCNA certification for network associates validates the ability to install, configure, operate, and troubleshoot medium-sized routed and switched networks, and implement and verify connections to remote sites in a wide-area network (WAN) Network technician coursework teaches students valuable Internet technology skills, including networking, IT Essentials, Cabling. The curriculum covers a broad range of topics from basics on how to build a network, and more complex IT concepts such as applying advanced troubleshooting tools.

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

All CMU certificate 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. Apply business communication using listening, verbal and written and electronic forms that are needed for entry level employment. (Communication Fluency)
2. Apply mathematical and applied physics concepts for industry to meet employment requirements. (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to business, sciences and technical careers. (Critical Thinking)
4. Demonstrate knowledge of terminology, symbols, business practices, and principles and application of technical skills. (Specialized Knowledge)
5. Perform the necessary applied skill sets to fulfill the needs of entry level employment. (Applied Learning)
6. Demonstrate ethical, civic and work place responsibility as part of professional behavior. (Specialized Knowledge)

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 the 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:
- ~~18~~ 17 semester hours total.
- 2.00 cumulative GPA or higher in all CMU coursework and a "C" or better must be achieved in coursework toward major content area.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Program sheets are for advising purposes only. Because a program may have requirements specific to the degree, check with your advisor for additional guidelines, including prerequisites, grade point averages, grades, exit examinations, and other expectations. It is the student's responsibility to be aware of, and follow, all guidelines for the degree being pursued. Any exceptions or substitutions must be approved by the faculty advisor and/or Department Head. Courses related to teacher licensure must also be approved by the Teacher Education Dept.
- 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.

TECHNICAL CERTIFICATE: Certified Network Technician
(~~18~~ 17 semester hours)

Course No	Title	Sem.hrs	Grade	Term

Core Classes

Course No	Title	Sem.hrs	Grade	Term
TECI 132	Intro to IT Hardware and System Software	3	_____	_____
TECI 180	Cisco Networking I	4	_____	_____
TECI 185	Cisco Networking II	4	_____	_____
TECI 245	Security Fundamentals	3	_____	
~~TECI 230~~	~~Cisco Networking III~~	~~4~~	_____	_____
TECI 251	Personal and Professional Leadership Development	2	_____	_____
TECI 290	Certification: CCENT	1	_____	_____
		~~18~~ 17		

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 may be required to take a Major Field Achievement Test (exit exam).

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: **CERT**   Program/degree Name: **Technology Integration**
                                        Concentration/Emphasis: **Network Technician**

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:
> Is there a revision to the program sheet? **Yes**

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: **Jack Yon**   Date: **10/28/2014**
Email: **jyon@coloradomesa.edu**   Phone:

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Carolyn Ferreira-Lillo**   Date: **11/2/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **John Sluder**   Date: **11/2/2014**

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.

Program Modification Proposal

1. Program: Technical Certificate, Technology Integration, Network Technician Specialization
2. Department: WCCC - Business, Applied Science, and Information Services (BASIS)
3. Faculty: Jack Yon- 255-2609 jyon@coloradomesa.edu

Justification:

The purpose for these changes were to better meet industry needs, which were voiced at the last advisory board meeting. Course addition of TECI 245, network security is essentially to prevent loss through misuse of data. There are a number of potential pitfalls that may arise if network security is not implemented properly.

Math 107 needs to be removed from the certificate. Move TECI 260 from 2nd semester to 1st Semester.

The program sheet for the Technical Certificate, Program of Study: Technology Integration, Specialization: Network Technician is changed to reflect these updates.

~~2014-2015~~2015-2016 PETITION/PROGRAM SHEET
Award: Technical Certificate
Program of Study: Technology Integration
Specialization: Network Technician

About This Certificate . . .

Students enrolled in Technology Integration learn a multitude of skills to help prepare them to enter a variety of careers related to computer systems, computer system administration and networking, electronics, and telecommunications engineering. Students begin the program studying basic core classes including communications, electronics information technology hardware and software, and Cisco Systems Network training.

Students select an area of specialization from two choices – telecommunications VoIP technician, or network technician. The coursework in this certificate is aligned with national and international certifications including Cisco, A+/N+, CET, and Convergent Technology Professional (CTP). Program content has been structured to give a basic education to all graduates entering this field. Emphasis has been placed on providing a common core of training for all students due to the convergence of the communication industries.

Network technician coursework teaches students valuable internet technology skills, including networking, Web design, IT Essentials, Cabling, Java and UNIX. The curriculum covers a broad range of topics from basics on how to build a network to how to build a website and more complex IT concepts such as applying advanced troubleshooting tools.

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

All CMU certificate 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. Apply business communication using listening, verbal and written and electronic forms that are needed for entry level employment. (Communication Fluency)
 2. Apply mathematical and applied physics concepts for industry to meet employment requirements. (Quantitative Fluency)
 3. Research, evaluate, synthesize and apply information/data relevant to business, sciences and technical careers. (Critical Thinking)
 4. Demonstrate knowledge of terminology, symbols, business practices, and principles and application of technical skills. (Specialized Knowledge)
 5. Perform the necessary applied skill sets to fulfill the needs of entry level employment. (Applied Learning)
 6. Demonstrate ethical, civic and work place responsibility as part of professional behavior. (Specialized Knowledge)

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:
- 2.00 cumulative GPA or higher in all CMU coursework
- "C" or better in each course which comprises the area of emphasis or specialization.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Program sheets are for advising purposes only. Because a program may have requirements specific to the degree, check with your advisor for additional guidelines, including prerequisites, grade point averages, grades, exit examinations, and other expectations. It is the student's responsibility to be aware of, and follow, all guidelines for the degree being pursued. Any exceptions or substitutions must be approved by the faculty advisor and/or Department Head.
- See the "Undergraduate Graduation Requirements" in the catalog for additional graduation information

Technical Certificate: Technology Integration – Network Technician (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, <u>you must use it to fulfill the major requirement</u> and make a different selection within the general education requirement.

Course No	Title	Sem.hrs	Grade	Term/Trns
TECI 132	Intro to IT Hardware & System Software	3	_____	_____
TECI 170	Intro to Communications	3	_____	_____
TECI 180	Cisco Networking I	4	_____	_____
Course No	Title	Sem.hrs	Grade	Term/Trns

TECI 185	Cisco Networking II	4	_____	_____
TECI 230	Cisco Networking III	4	_____	_____
TECI 235	Cisco Networking IV	4	_____	_____
TECI 245	Security Fundamentals	3	_____	_____
TECI 251	Personal & Professional Leadership Development	2	_____	_____
TECI 260	Info Technology Hardware & System Software	3	_____	_____
TECI 290	Certification:	1	_____	_____
~~MATH 107~~	~~Career Mathematics~~	~~3~~	_____	_____

SUGGESTED COURSE SEQUENCING FOR THE TECHNICAL CERTIFICATE WITH A PROGRAM OF STUDY IN TECHNOLOGY INTEGRATION - SPECIALIZATION IN NETWORK TECHNICIAN

This is a recommended sequence of course work. Certain courses may have prerequisites or are only offered 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.

First Semester		Hours
~~MATH 107~~	~~Career Mathematics~~	~~3~~
TECI 132	Intro to IT Hardware & Sys Software	3
TECI 260	Info Tech Hardware & System Software	3
TECI 180	Cisco Networking I	4
TECI 185	Cisco Networking II	4
TECI 251	Personal & Professional Leadership Dev.	2
		16

Second Semester		Hours
TECI 170	Introduction to Communications	3
TECI 230	Cisco Networking III	4
TECI 235	Cisco Networking IV	4
TECI 245	Security Fundamentals	3
~~TECI 260~~	~~Info Tech Hardware & System Software~~	~~3~~
TECI 290	Certification:	1
		15

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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 may be required to take a Major Field Achievement Test (exit exam).

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: **AAS**   Program/degree Name: **Technology Integration**
                                      Concentration/Emphasis: **Network/Telecommunication Technician**

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:
        Is there a revision to the program sheet? **Yes**

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: **Jack Yon**   Date: **10/28/2014**
Email: **jyon@coloradomesa.edu**   Phone:

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Carolyn Ferreira-Lillo**   Date: **11/2/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **John Sluder**   Date: **11/2/2014**

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.

Program Modification Proposal

1. Program: AAS, Technology Integration, Network/Telecommunication Technician
2. Department: WCCC - Business, Applied Science, and Information Services (BASIS)
3. Faculty: Jack Yon- 255-2609 jyon@coloradomesa.edu

Justification:

The purpose for these changes is to better meet industry needs, which were voiced at the last advisory board meeting and also reflect CISCO requirements. Course addition of TECI 245 Network Security is essentially to prevent loss through misuse of data. There are a number of potential pitfalls that may arise if network security is not implemented properly.

TECI 110 also needs to be removed and the General Education requirements have been moved from the 4th to the 3rd semester.

The program sheet for the Technology Integration AAS is changed to reflect these updates.

About This Emphasis . . .

Students enrolled in Technology Integration learn a multitude of skills to help prepare them to enter a variety of careers related to computer systems, computer system administration and networking, electronics, and telecommunications engineering. Students begin the program studying basic core classes including communications, electronics information technology hardware and software, and Cisco Systems Network training.

In the second year, students select an area of emphasis from three choices – telecommunications engineering, network technician, or certified electronics technician. The course work in this associate of applied science program is aligned with national and international certifications including Cisco, A+/N+, CET, and Convergent Technology Professional (CTP), and Voice over Internet Protocol (VoIP). Program content has been structured to give a basic education to all graduates entering this field. Emphasis has been placed on providing a common core of training for all students due to the convergence of the communication industries.

Network Technician coursework teaches students valuable Internet technology skills, including networking, Web design, IT Essentials, Cabling, Java and UNIX. The curriculum covers a broad range of topics from basics on how to build a network to how to build a website and more complex IT concepts such as applying advanced troubleshooting tools.

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

All CMU associate 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. Apply business communication using listening, verbal and written, and electronic forms that are needed for entry level employment. (Communication Fluency)
2. Apply Mathematical and applied physics concepts for industry to meet employment requirements. (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to business, sciences, and technical careers. (Critical Thinking)
4. Demonstrate knowledge of terminology, symbols, business practices, and principles and application of associated technical skills. (Specialized Knowledge)
5. Perform the necessary applied skill sets to fulfill the needs of entry level employment. (Applied Learning)
6. Demonstrate ethical, civic, and work place responsibility as part of professional behavior. (Specialized Knowledge)

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:
- Minimum of 62 semester hours total (A minimum of 16 taken at CMU in no fewer than two semesters).
- 2.00 cumulative GPA or higher in all CMU coursework and a "C" or better must be achieved in coursework toward major content area.
- 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 (Minimum 16 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
Communication (6 semester hours)			
ENGL 111 English Composition	3	____	____
ENGL 112 English Composition	3	____	____
-OR-			
ENGL 111 English Composition **and**	3	____	____
SPCH 101 Interpersonal Communication **or**	3	____	____
SPCH 102 Speechmaking	3	____	____
Mathematics : (Minimum 3 semester hours)			
MATH 108 Technical Mathematics (or higher)	4	____	____

Course No Title	Sem.hrs	Grade	Term/Trns
Social Sciences, Natural Science, Fine Arts or Humanities, or Selected Applied Studies Courses* (Minimum 6 semester hours)			
_____ ____ _____	3	____	____
_____ ____ _____	3	____	____

OTHER LOWER DIVISION REQUIREMENTS
Wellness (2 semester hours)

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

ASSOCIATE OF APPLIED SCIENCE: TECHNOLOGY INTEGRATION – NETWORK/TELECOMMUNICATION TECHNICIAN REQUIREMENTS
(44 semester hours)
Core Classes

PROS 117	Electronics I	3	____	____
TECI 132	Intro to IT Hardware and System Software	3	____	____
TECI 170	Intro to Communications	3	____	____
TECI 180	Cisco Networking I	4	____	____
TECI 185	Cisco Networking II	4	____	____
TECI 230	Cisco Networking III	4	____	____
TECI 235	Cisco Networking IV	4	____	____
TECI 245	Security Fundamentals	3		
TECI 260	Information Technology Hardware & System Software	3	____	____
TECI 265	Advanced IT Hardware & System Software	3	____	____
TECI 290	Certification:	1	____	____
TECI 292	Capstone in Technical Engineering and Economics	4	____	____
~~TECI 110~~	~~Applied Physics~~	~~3~~	____	____
TECI 251	Personal and Professional Leadership Development	2	____	____
TECI 240	VoIP Fundamentals	3	____	____

*Please see your advisor for requirements specific to this program.

SUGGESTED COURSE SEQUENCING FOR THE ASSOCIATE OF APPLIED SCIENCE WITH A MAJOR IN TECHNOLOGY INTEGRATION, EMPHASIS IN NETWORK/TELECOMMUNICATION TECHNICIAN

This is a recommended sequence of course work. Certain courses may have prerequisites or are only offered 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.

First Semester		Hours
MATH 108	Technical Mathematics	4
PROS 117	Electronics I	3
TECI 132	Intro to IT Hardware & Sys Software	3
TECI 251	Personal/Professional Leadership Dev.	2
TECI 180	Cisco Networking I	4
		16

Second Semester		Hours
ENGL 111	English Composition	3
General Education Social Sciences, Natural Science, Fine Arts, or Humanities or Selected Applied Studies Courses		3
TECI 110	Applied Physics	3
KINE 100	Health and Wellness	1
TECI 185	Cisco Networking II	4
TECI 260	Info Tech Hardware/System Software	3
KINA	Activity	1
		15

Third Semester		Hours
ENGL 112	English Composition or SPCH 101/102	3
General Education Social Sciences, Natural Science, Fine Arts, or Humanities or Selected Applied Studies Courses		3
TECI 170	Introduction to Communications	3
TECI 230	Cisco Networking III	4
TECI 265	Adv. IT Hardware & Sys Software	3
		16

Fourth Semester		Hours
General Education Social Sciences, Natural Science, Fine Arts, or Humanities or Selected Applied Studies Courses		3
TECI 235	Cisco Networking IV	4
TECI 240	VoIP Fundamentals	3
TECI 245	Security Fundamentals	3
TECI 290	Certification:	1
TECI 292	Capstone in Tech Engineering/Economics	4
		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 may be required to take a Major Field Achievement Test (exit exam).

COLORADO MESA
U N I V E R S I T Y

DEPARTMENT WORKSHEET FOR A COURSE ADDITION
Colorado Mesa University Curriculum Committees

NOTE: Each course addition must be submitted on a separate form.

Department Name: **WCCC: Hospitality, Human Services, Education**
        If new department, please enter name:

Course prefix: **CUAR**   Course number: **115**   Credit hours: **3**

Course name: **Introduction to Sustainable Cuisine**

Course abbreviated schedule name (24 characters maximum): **Sustainable Cuisine**

Contact hours per week: Lecture   Lab   Field   Studio   Other **4.5**

Type of Instructional Activity (from Table III.2 of Curriculum Policies and Procedures Manual):
Lecture/Laboratory: Vocational/Technical

Academic engagement minutes for a term: 3375   Student preparation minutes for a term: 3375

Earliest term course can be offered: **Fall**   Earliest academic year: **2015-16**

Intended semesters for offering this course: Fall ⊠   J-Term ☐   Spring ⊠   Summer ⊠

Is this to be a <u>general education/essential learning</u> course? **No**   If yes, which category?

If this is a general education course,essential learning course, see requirements in Section III.L. of the Curriculum Policies and Procedures Manual at http://coloradomesa.edu/facsenate/curriculumresources.html

Is this to be an experimental course? **No**   If yes, use the Intra-Departmental Curriculum Change Memo.

List all <u>prerequisites</u> for this course. If none, indicate by checking here: ⊠

Course	Credit Hours	Course	Credit Hours
1.		2.	
3.		4.	
5.		6.	
7.		8.	
9.		10.	

List all <u>co-requisites</u> for this course. If none, indicate by checking here: ⊠

Course	Credit Hours	Course	Credit Hours
1.		2.	
3.		4.	
5.		6.	
7.		8.	
9.		10.	

(Submit a course modification request, as required, for each course listed above.)

List all programs of study for which this course will be a <u>requirement</u> or a <u>listed choice</u>, including all degrees, majors, minors, certificates, concentrations, cognates, emphases, and options. If none, indicate by checking here: ☐

	Degree Type	Program
1.	**CERT**	**Culinary Arts**
2.	**CERT**	**Baking and Pastry Arts**
3.	**AAS**	**Culinary Arts**
4.	**AAS**	**Baking and Pastry**
5.		
6.		
7.		
8.		
9.		
10.		

**(Submit a program modification request and a revised program sheet for each program listed above.
All prerequisites to this course <u>must</u> be included in each program of study listed above.)**

List all courses for which this course is to be a prerequisite or corequisite. If none, indicate by checking here: ☒

1.	2.
3.	4.
5.	6.
7.	8.
9.	10.

(Submit a course modification request, as required, for each course listed above.)

DUPLICATION: Is there overlapping content with present courses offered on campus? **No**
If yes, explain:

FACULTY FTE: Will additional faculty FTE be required? **No**
If yes, explain:

EQUIPMENT: Does the course require additional equipment? **No**
If yes, explain:

LAB FACILITIES: Does the course require additional lab facilities? **No**
If yes, explain:

Course description as it will appear in the printed catalog:
Impact of human food production systems on environment and society. Focus on meeting present food needs without compromising future generations. Topics include connections among agriculture, food production, ecology, ethics, nutrition, health, cuisine and foodservice operations .

Justification for the proposed new course (enter below):

In 2010 the Culinary Arts program completed a five-year strategic planning process. Our mantra throughout the process was "teach to the future." Among the questions researched were: "what educational needs are we currently not addressing," and "what training will our students need to be successful in our industry in the future." In researching these questions a December 2010 poll that surveyed over 1500 American Culinary Federation member chefs stood out, reporting that: "sustainability-related trends held four of the top five positions of importance in the survey, with 82 percent of chefs identifying it as the "hot topic of 2011." The sustainability issues that we felt our plan must address included: a composting facilities and recycling center, the addition of a kitchen garden and green house to teach the fundamentals of gardening, including: planning, site selection, soil make-up, seed selection, growing conditions, pest control, plant classification, herb identification, and the food safety issues associated with these processes, and a course offerings to teach this information.
Western Colorado has a rich heritage in agriculture and tourism. The culinary arts program is uniquely positioned to bridge these two economic engines, and to serve as a catalyst for the growth and development of each. Culinary schools have a long tradition of impacting local growers by supporting the production of fruits and vegetables, and promoting the "Farm to Table" concept. But as Americans continue to embrace sustainable farming and kitchen gardening in ever

increasing numbers, new food safety and sanitation challenges are being realized. The long-held tradition of teaching food safety within our culinary arts curriculum makes the culinary school the natural place to tackle these new challenges.

Student learning outcomes:
Upon completion of this course, a student should be able to:

I.   Apply principles of grammar and vocabulary in the field of Sustainable Cuisine.
II. Apply appropriate Mathematical concepts and practices to the field of Sustainable Cuisine.
III. Evaluate strategies for production and sales of agricultural products.
IV. Utilize various equipment and tools used in the production of agricultural products.

Topical course outline: (List of topics only. Do not attach syllabus.)

I.   Compare and contrast sustainable and non-sustainable food productions processes.
II.   Compare and contrast the environmental impacts of various plant food production techniques.
III. Identify impacts of meat production techniques on the eco-system.
IV.   Discuss the impacts of seafood production techniques on aquatic eco-systems.
V.   Describe impacts of the introduction of exotic flora and fauna on eco-systems.
VI.   Define: aquaculture, aquifer, biodiversity, biodynamics, Fair Trade, genetically modified organisms, heirloom varieties, heritage species, irradiation, free range, monoculture, organic, rBGH and sustainability.
VII. Examine the similarities and differences of organic and biodynamic food production.
VIII. Critique the impact of globalization on the food supply.
IX.   Evaluate the advantages of locally produced food supplies.
X.   Examine the effect of seasonality on food choices and impacts.
XI.   Select foods that minimize negative environmental impacts and promote human well-being.
XII. Assess marketing of sustainable agriculture in foodservice operations.

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.

NA

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

1. Submit the course catalog description to the Course Description Evaluator a week prior to the published proposal submission deadline.

2. 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: **Daniel Kirby**   Date: **10/31/2014**
Email: dkirby@coloradomesa.edu   Phone: 970-255-2632

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Carolyn Ferreira-Lillo**   Date: **11/30/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **Sundermann Brigitte**   Date: **12/4/2014**

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.

The following form is a snapshot of the library's collection in support of new curriculum areas and/or course additions.

Date of assessment: _____06 January 2015_____

Collection under review: _____CUAR 115: Intro to Sustainable Cuisine_____

Program level: Certificate   Associates   **Bachelors**   Masters

Delivery mode: _____Lecture/Lab: Vo/Tech_____

Library Liaison: ____Cantwell, Laureen____

1. **Current Collection Review**

    a. **Reference Sources:**

    A keyword search for →sustainab* AND food → displayed 19 results, none of which are reference titles. An additional search for sustainab* returned no results for reference titles.

    A keyword search for cookery displays 187 results, 3 of which are reference titles – all of which may be of interest (though none are electronically available; titles in bold):

    - Labensky, S., Ingram, G. G., & Labensky, S. R. (2001). ***Webster's new world dictionary of culinary arts.*** 2nd ed. Upper Saddle River, NJ: Prentice Hall.
    - Sinclair, C. G. (. G. (1998). ***International dictionary of food & cooking.*** Chicago: Fitzroy Dearborn.
    - Rolland, J. L., & Sherman, C. (2006). ***The food encyclopedia: over 8,000 ingredients, tools, techniques, and people.*** Toronto, Ont.: Robert Rose.

    Furthermore, these titles are 8+ years old, and may not account for newer trends in cuisine, such as the sustainable movement.

    b. **Monographic Sources:**

    To catch a broad swath of sustainability-related content within our catalog, several searches were performed. The table below details the monographic holdings of the library for those searches.

Search tactic:	Print	E-Book
Sustainab* (keyword), non-fiction	138 (44 since 2000)	47 (not all relevant)
Factory farming (subject), non-fiction	4	0
fisheries (keyword) AND (planning OR food OR 'rules and practice' OR 'sustainable fisheries' OR seafood) [subject headings]	16 (13 since 2000)	0
Sustainable agriculture (subject headings), non-fiction	29 (7 since 2000)	82

* NOTE: Items may have appeared in more than one set of search results; each list may duplicate titles from the other subject areas listed as well; **little here involves the culinary arts**.

Selection of print and electronic titles sustainability of possible interest (titles in bold):

- SpringerLink (Online Service), & Matson, P. A. (2012). *Seeds of sustainablility: lessons from the birthplace of the Green Revolution.* Island Press.
- Horne, J. E., & McDermott, M. (2001). *The next green revolution: essential steps to a healthy, sustainable agriculture.* New York: Food Products Press.
- Poincelot, R. P. (1986). *Toward a more sustainable agriculture.* Westport, Conn.: Avi Pub. Co.
- SpringerLink (Online service), Aiking, H., Boer, J. d., & Vereijken, J. (2006). *Sustainable protein production and consumption: pigs or peas?* Springer.
- SpringerLink (Online service), & Lichtfouse, E. (2009). *Sustainable agriculture reviews: organic farming, pest control and remediation of soil pollutants.* Springer.
- SpringerLink (Online Service), & García-Tejero, I. F. (2011). *Water and sustainable agriculture.* Springer.
- SpringerLink (Online Service), & Christou, P. (2013). *Sustainable food production.* Springer.
- Miller, D. A. (2013). *Factory farming.* Detroit: Greenhaven Press, a part of Gale, Cengage Learning.
- Spellman, F. R., & Whiting, N. E. (2007). *Environmental management of concentrated animal feeding operations (CAFOs).* Boca Raton: CRC Press.
- Thistlethwaite, R. (2012). *Farms with a future: creating and growing a sustainable farm business.* Chelsea Green Pub.: White River Junction, VT.
- Freyfogle, E. T. (2001). *The new agrarianism: land, culture, and the community of life.* Washington [D.C.]: Island Press.
- Beeman, R. S., & Pritchard, J. A. (2001). *A green and permanent land: ecology and agriculture in the twentieth century.* Lawrence: University Press of Kansas.
- Stec, L. F., & Cordero, E. C. (2008). *Cool cuisine: taking the bite out of global warming.* Layton, Utah: Gibbs Smith, Publisher.
- Gary Holthaus. (2014). *From the Farm to the Table: What All Americans Need to Know about Agriculture.* The University Press of Kentucky.
- Fromartz, S. (2006). *Organic, Inc.: Natural foods and how they grew*. Orlando: Harcourt.

Selection of print and electronic government publication titles of possible interest regarding sustainability (titles in bold):

- 'Abd al-Bāqī, A., Teasdale, J. R., & United States. Agricultural Research Service. (1997). *Sustainable production of fresh-market tomatoes and other summer vegetables with organic mulches.* Rev. Aug. 1997. [Washington, D.C.?]: U.S. Dept. of Agriculture, Agricultural Research Service.
- Gates, J. P., Tant, C., & National Agricultural Library (U.S.). (1990). *Transition toward a sustainable agriculture.* Beltsville, Md.: National Agricultural Library.
- Alternative Farming Systems Information Center (U.S.), & National Agricultural Library (U.S.). (1993). *Sustainable agriculture in print: current books.* Beltsville, Md.: National Agricultural Library.
- Gold, M. V., & National Agricultural Library (U.S.). (1994). *Sustainable agriculture: definitions and terms.* Beltsville, Md.: National Agricultural Library.
- Guenther, K., Dobert, R., Gates, J. P., & National Agricultural Library (U.S.). (1994). *Biotechnology and sustainable agriculture: a bibliography.* Beltsville, Md.: National Agricultural Library.
- United States & U.S. Environmental Protection Agency. (2002). *Concentrated animal feeding operations Clean Water Act requirements: what are the federal requirements for beef cattle and veal calf CAFOs?* U.S. Environmental Protection Agency.
- Gold, M. V., & National Agricultural Library (U.S.). (2000). *Organically produced foods: nutritive content.* Beltsville, Md.: U.S. Dept. of Agriculture, Agricultural Research Service, National Agricultural Library.
- Cleveland, D. A., & Ebooks Corporation. (2014). *Balancing on a planet: the future of food and agriculture.* University of California Press.
- SpringerLink (Online Service), Campbell, W. B., & Ortíz, S. L. (2014). *Sustainable food production includes human and environmental health.* Springer.
- SpringerLink (Online Service), Bellon, S., & Penvern, S. (2014). *Organic farming, prototype for sustainable agricultures.* Springer.
- Sati, V. P., & SpringerLink (Online Service). (2014). *Towards sustainable livelihoods and ecosystems in mountain regions.* Springer.
- SpringerLink (Online Service), & Coudel, E. (2013**). *Renewing innovation systems in agriculture and food: How to go towards more sustainability?* Wageningen Academic Publishers.

Books, and other items, physically delivered from other institutions are free to students, staff, and faculty at CMU and provides valuable support for those engaged in research and scholarship, as these Milestone students will be. **Interlibrary loan** of books and other non-article/non-chapter content takes 3-5 days on average, which is not overly long but which does underscore the importance of the Library building strong monographic support for Milestone course sections as much as possible. Our interlibrary loan service can also aid the Library in assessing frequently requested items for appropriate additions to our collection.

c. **Periodicals (online and print):**

We carry several subscriptions that may be relevant to this course:
- *Farmers Weekly* (LexisNexis, 1997-current)
- *Aquaculture Economics & Management* (Academic Search Complete, 1998-1999)
- *Agriculture & Food Security* (DOAJ, 2012-current)
- *Fisheries & Aquaculture Journal* (DOAJ, 2010-current)
- *Fisheries Management & Ecology* (Wiley Online Library, 1994-current)
- *Scientific American* (available from several databases, 2005-current)

Interlibrary loan is a quick, efficient, and useful supplement to our collections, as well, with an average turn-around time of just 11 hours for articles. Such fast request-to-delivery times greatly aid students in their information needs being addressed and processed as close to the time of need as possible. As students often work close to deadlines so must our services work as favorably with those deadlines as they can.

d. **Electronic Resources:**

Databases that have articles and/or indexed content on wine, beer, and spirits:

- **Lexis-Nexis** [searched: sustainability AND (aquaculture OR farming OR cuisine)] several 1,000 results, many of which are from newspapers.
- **Academic Search Complete** [searched: (aquaculture OR farming OR cuisine) AND sustainab*] – over 13,000 results, with over 6,000 available full-text.
    o Popular academic journals from these results include: *Journal of Sustainable Agriculture; Farmers Weekly; Aquaculture; Agriculture, Ecosystems, & Environment,* and *Fisheries Research.*
    o Popular magazines from these results included: *American Vegetable Grower, American Fruit Grower, Aquaculture Magazine, Fisheries,* and *Scientific American.*
- **OmniFile Full Text Select** [searched: (aquaculture OR cuisine OR farming) AND sustainab*] –about 1,500 results in full-text.
    o Popular publication titles from these results included: *Farmers Weekly; Plant & Soil; Agroforestry Systems; Agronomy Journal; Countryside & Small Stock Journal; Mother Earth News;* and *Alternatives Journal.*
- **Business Source Complete** [searched: (aquaculture OR cuisine OR farming) AND sustainab*] – over 3,000 results with over 2,000 available full-text.
    o Popular publication titles for these search results included: *In Business; Horticulture Week; Western Farm Press; Biocycle; Ecological Economics; Journal of Cleaner Production;* and the *Journal of Agricultural & Environmental Ethics.*

e. **Media:**

The Library subscribes to *Films on Demand* – a streaming video service from Films Media Group. This service includes educational films, documentaries, and PBS publications. These films can be accessed through course content links added to D2L, if the faculty member chooses, for convenient access to the student(s) and/or can be streamed into the physical classroom as well.

A search for → sustainability OR food OR cuisine …results in about 1200 eVideos from this collection, including (titles in bold):

- ABC International, Films for the Humanities & Sciences (Firm), & Films Media Group. (2013). *Good Enough to Eat: Developing Food Products.* Films Media Group.
- ABC International, Films for the Humanities & Sciences (Firm), & Films Media Group. (2013). *Eating Green: Environmentally Friendly Food.* Films Media Group.
- BBC Worldwide Ltd., Films for the Humanities & Sciences (Firm), & Films Media Group. (2010). *The Future of Food: Sustainability and Security.* Films Media Group.
- Films for the Humanities & Sciences (Firm), & Films Media Group. (2012).*TEDTalks: Ray Anderson - The Business Logic of Sustainability.* Films Media Group.
- ABC News Productions, Films for the Humanities & Sciences (Firm), & Films Media Group. (2006). *Food Fight: Childhood obesity and the food industry.* Films Media Group.
- Films Media Group, Films for the Humanities & Sciences (Firm), & Classroom Video (Firm). (2010). *Industrial Ingredients: Food Science in Action.* Films Media Group.
- Agency for Instructional Technology, Films for the Humanities & Sciences (Firm), & Films Media Group. (2005). *China: Food for a billion plus.* Films Media Group.
- Autlook Filmsales GmbH, Films for the Humanities & Sciences (Firm), & Films Media Group. (2011). *Enjoy Your Meal!: How Food Changes the World.* Films Media Group.
- Canadian Broadcasting Corporation, Films for the Humanities & Sciences (Firm), & Films Media Group. (2014). *Great Food Revolution.* Films Media Group.
- Carlton International Media Limited, Films for the Humanities & Sciences (Firm), & Films Media Group. (2012). *Feast or Famine: Water Management and Food Production in China.* Films Media Group.
- Films Media Group, Films for the Humanities & Sciences (Firm), & Looking Glass Pictures. (2012). *Seed Warriors: Scientists Fighting for Global Food Security.* Films Media Group.
- Films for the Humanities & Sciences (Firm), Films Media Group, & TED Conferences LLC. (2013). *TEDTalks: Tristram Stuary - The Global Food Waste Scandal.* Films Media Group.
- Canadian Broadcasting Corporation, Films for the Humanities & Sciences (Firm)., & Films Media Group. (2010). *The Battle to Get on Your Plate: High Stakes in the Food Industry.* Films Media Group.

2. **Recommendations for additions to the collection:**

New titles for this course will be purchased on the recommendations of the departmental faculty and from standard selection sources, as needed.

It would be worth seeking newer reference titles which accommodate this subject matter, particularly in e-format, as well as additional print / e-books focused on sustainable cuisine, particularly those centered on the culinary world (rather than the scientific and/or social justice and/or environmentalist perspectives), such as those written by chefs, as we have few titles to cover these most relevant perspectives. Additional titles could be sought which cover sustainable restaurants and the farm-to-table movement.

3. **Library Research Support Statement:**
The Library can offer research support for specific courses – through **instructional sessions** (how to access and use our research tools, how to evaluate information and sources, how to use information ethically, etc.) as well as / or an **"embedded librarian"** in the D2L areas of Milestone course sections (if sections are to be offered to distance students in support of fully-

online baccalaureate programs like Nursing; if research support at the individual or small group level, rather than classroom instruction, would be a better fit; etc.). The Library can also create **research / course guides** for Milestone course sections – tailoring links, tools, e-reserve access, and more to the students and the topic of that section.

If desired, courses can make use of all of these options and the Library is interested in investigating customized possibilities with faculty.

4. **Analysis of library's collection:**
   X **This program requires no new library resources.**
   ☐ Extra funding is required to adequately meet the informational needs of the program. Estimated resources needed $ _____
   ☐ No Library Assessment needed. No new content associated with this analysis.

Library Director: _____Sylvia L. Rael_____ **Date:**___12 January 2015___

DEPARTMENT WORKSHEET FOR A COURSE ADDITION
Colorado Mesa University Curriculum Committees

NOTE: Each course addition must be submitted on a separate form.

Department Name: **WCCC: Hospitality, Human Services, Education**
          If new department, please enter name:

Course prefix: **CUAR**   Course number: **160**   Credit hours: **5**

Course name: **Cake Decorating**

Course abbreviated schedule name (24 characters maximum): **Cake Decorating**

Contact hours per week: Lecture   Lab   Field   Studio   Other **7.5**

Type of Instructional Activity (from Table III.2 of Curriculum Policies and Procedures Manual):
Lecture/Laboratory: Vocational/Technical

Academic engagement minutes for a term: 5625   Student preparation minutes for a term: 5625

Earliest term course can be offered: **Fall**   Earliest academic year: **2015-16**

Intended semesters for offering this course: Fall ☒   J-Term ☐   Spring ☒   Summer ☐

Is this to be a general education/essential learning course? **No**   If yes, which category?

If this is a general education course,essential learning course, see requirements in Section III.L. of the Curriculum Policies and Procedures Manual at http://coloradomesa.edu/facsenate/curriculumresources.html

Is this to be an experimental course? **No**   If yes, use the Intra-Departmental Curriculum Change Memo.

List all prerequisites for this course. If none, indicate by checking here: ☐

Course	Credit Hours	Course	Credit Hours
1. **CUAR 100 Culinary Program Fundaments**	**3**	2. **CUAR 101 - Food Safety and Sanitation**	**2**
3. **CUAR 145 Introduction to Baking**	**4**	4.	
5.		6.	
7.		8.	
9.		10.	

List all co-requisites for this course. If none, indicate by checking here: ☒

Course	Credit Hours	Course	Credit Hours
1.		2.	
3.		4.	
5.		6.	
7.		8.	
9.		10.	

(Submit a course modification request, as required, for each course listed above.)

List all programs of study for which this course will be a <u>requirement</u> or a <u>listed choice</u>, including all degrees, majors, minors, certificates, concentrations, cognates, emphases, and options. If none, indicate by checking here: ☐

	Degree Type	Program
1.	**CERT**	**Baking and Pastry Arts**
2.	**CERT**	**Culinary Arts**
3.	**AAS**	**Baking and Pastry Arts**
4.	**AAS**	**Culinary Arts**
5.		
6.		
7.		
8.		
9.		
10.		

**(Submit a program modification request and a revised program sheet for each program listed above.
All prerequisites to this course <u>must </u>be included in each program of study listed above.)**

List all courses for which this course is to be a prerequisite or corequisite. If none, indicate by checking here: ☐

1. **CUAR 163 Advanced Cake Decorating**	2.
3.	4.
5.	6.
7.	8.
9.	10.

(Submit a course modification request, as required, for each course listed above.)

DUPLICATION: Is there overlapping content with present courses offered on campus? **No**
    If yes, explain:

FACULTY FTE: Will additional faculty FTE be required? **No**
    If yes, explain:

EQUIPMENT: Does the course require additional equipment? **No**
    If yes, explain:

LAB FACILITIES: Does the course require additional lab facilities? **No**
    If yes, explain:

Course description as it will appear in the printed catalog:
    Variety of cake decorating techniques including flowers, leaves, borders, and attractive arrangements. Preparation of and work with gumpaste, rolled fondant and airbrushing techniques.

Justification for the proposed new course (enter below):

In this lecture-lab course, students are exposed to a wide variety of cake decorating techniques and equipment used in the modern bakery. Cake decorating is complex and time consuming. This longer format course will give students the necessary time to explore increasingly more difficult techniques of cake production.

Student learning outcomes:
Upon completion of this course, a student should be able to:

  I. Apply principles of grammar and vocabulary in the field of Cake Decorating.
  II. Apply appropriate mathematical concepts and practices to the field of Cake Decorating.
  III. Evaluate strategies for production and sales of specialty cakes.
  IV. Assess a variety of cake products.
  V. Utilize various equipment and tools used in cake production.
  VI. Produce a variety of cakes using diverse temperatures, textures, flavors and icings.

Topical course outline: (List of topics only. Do not attach syllabus.)

I. Introduction to tools and equipment
II. Introduction to planning and conceptualization of specialty cakes
III. Produce a variety of holiday cakes
IV. Produce gum paste and rolled fondant
V. Produce lattice work cakes
VI. Introduction to airbrush techniques
VII. Introduction to wedding cake construction
VIII. Discuss industry placement as a beginner cake decorator
IX. Discuss the basics of setting up a business

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.

NA

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

1. Submit the course catalog description to the Course Description Evaluator a week prior to the published proposal submission deadline.

2. 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: **Daniel Kirby**   Date: **10/31/2014**
Email: dkirby@colordomesa.edu   Phone: 970-255-2632

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Carolyn Ferreira-Lillo**   Date: **11/30/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **Sundermann Brigitte**   Date: **12/4/2014**

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.

Library Curriculum Assessment
Tomlinson Library
Colorado Mesa University

The following form is a snapshot of the library's collection in support of new curriculum areas and/or course additions.

Date of assessment: _____06 January 2015_____

Collection under review: _____CUAR 160: Cake Decorating_____

Program level: Certificate   Associates   **Bachelors**   Masters

Delivery mode: _____Lecture_____

Library Liaison: ____Cantwell, Laureen____

1. **Current Collection Review**

   a. **Reference Sources:**

      A keyword search for →cakes → displayed 171 results, none of which are reference titles. An additional search for bak* returned no results for reference titles. A search for "culinary arts" produced 1 reference title published since 2000 (2001):

      Labensky, S., Ingram, G. G., & Labensky, S. R. (2001). ***Webster's new world dictionary of culinary arts. 2nd ed.*** Upper Saddle River, NJ: Prentice Hall.

      …which may not be particularly helpful for this course.

      We do not seem to own any highly relevant reference titles for this specific subject area. **See recommendations section at the end for suggestions from the library.**

   a. **Monographic Sources:**

      To catch a broad swath of cake decorating-related content within our catalog, several searches were performed. The table below details the monographic holdings of the library for those searches.

Search tactic:	Print	E-Book
Cakes (keyword) AND Technology (Subject)	21 (11 since 2000)	8

Baking (keyword) AND Technology (Subject)	28 (13 since 2000; not all relevant to course)	16
Cake decorating (keyword)	5 (3 since 2000)	1

* NOTE: Items may have appeared in more than one set of search results; each list may duplicate titles from the other subject areas listed as well.

Selection of print and electronic titles sustainability of possible interest (titles in bold):

- LoCicero, J. (2007). *Cake decorating for dummies.* Hoboken, NJ: Wiley.
- Turner, M., & Hosegood, J. (2005). *Spectacular cakes.* New York: Universe.
- Hurst, N., & Springall, J. (2000). *Contemporary wedding cakes.* London: Merehurst.
- Jen Yates. (2009). *Cake Wrecks: When Professional Cakes Go Hilariously Wrong.* Andrews McMeel Publishing LLC.
- Amendola, J., & Rees, N. (2003). *Understanding baking: the art and science of baking. 3rd ed.* Hoboken, N.J.: John Wiley.
- Yockelson, L. (2002). *Baking by flavor.* New York: J. Wiley.
- Friberg, B., & Friberg, A. K. (2002). *The professional pastry chef: fundamentals of baking and pastry. 4th ed.* New York: J. Wiley.
- Healy, B., & Bugat, P. (1999). *The art of the cake: modern French baking and decorating.* New York: William Morrow.
- Cauvain, S. P., & Young, L. S. (2001). *Baking problems solved.* Boca Raton, FL : Cambridge, England: CRC Press ; Woodhead Pub.
- Roberts, A. G. (2006). *Gluten-free baking classics.* Chicago : [Berkeley]: Surrey Books ; Distributed to the trade by Publishers Group West.
- Sur La Table. (2011). **So Sweet!: Cookies, Cupcakes, Whoopie Pies, and More.** Andrews McMeel Publishing LLC.
- Lebovitz, D. (2010). *Ready for dessert: my best recipes.* Berkeley: Ten Speed Press.
- Madison, D. (2010). *Seasonal fruit desserts from orchard, farm, and market.* New York: Broadway Books.
- Porschen, P., & Smith, G. G. (2005). *Pretty party cakes: sweet and stylish cakes and cookies for all occasions. 1st American ed.* New York: Clarkson Potter/Publishers.

Books, and other items, physically delivered from other institutions are free to students, staff, and faculty at CMU and provides valuable support for those engaged in research and scholarship, as these Milestone students will be. **Interlibrary loan** of books and other non-article/non-chapter content takes 3-5 days on average, which is not overly long but which does underscore the importance of the Library building strong monographic support for Milestone course sections as much as possible. Our interlibrary loan service can also aid the Library in assessing frequently requested items for appropriate additions to our collection.

b. **Periodicals (online and print):**

We carry no subscriptions that may seem relevant to this course. This may not be a significant issue, however, for student success in accomplishing the tasks of the course.

But if items are needed that we do not own…**Interlibrary loan** is a quick, efficient, and useful supplement to our collections, as well, with an average turn-around time of just 11 hours for articles. Such fast request-to-delivery times greatly aid students in their information needs being addressed and processed as close to the time of need as possible. As students often work close to deadlines so must our services work as favorably with those deadlines as they can.

c. **Electronic Resources:**

Databases that have articles and/or indexed content on wedding cakes and cake decorating include:

- **Academic Search Complete** [searched: "wedding cakes"] – 126 results, some of which may be of interest, such as content from *New York* magazine (which can have special issues on weddings), *People* (celebrity weddings), *New York Times* (Sunday Styles section), and perhaps some of the historical journals which could provide interesting context and background in trends, styles, and more (e.g., *Natural History*; *Folklore*; and *Victorian Studies*).**
- **Lexis-Nexis** [searched:"wedding cakes"] – about 300 results, many of which are from newspapers, and many of which should include photographs – which LexisNexis does not often include.**

Interlibrary Loan may be important here as some articles we may only have HTML versions of (rather than PDFs), which **may mean that patrons will be unable to see photographs. For this topic, one would think that being able to see the images of decorated cakes would be quite important and, thus, students may need to request copies of the article that have been scanned at high resolution and in full-color.

d. **Media:**

The Library subscribes to *Films on Demand* – a streaming video service from Films Media Group. This service includes educational films, documentaries, and PBS publications. These films can be accessed through course content links added to D2L, if the faculty member chooses, for convenient access to the student(s) and/or can be streamed into the physical classroom as well.

A search for → baking OR cakes → results in about 40 eVideos from this collection, very few of which would be of high relevance to this course. Titles in the results include (titles in bold):

- Prelinger Archives → "Vocational film about careers in baking. Discussion of commercial baking industry."
- Les Courses Shopping → "This program shows viewers how to talk about buying food, from baked goods, to vegetables, to cooked meats. In addition, viewers are introduced to the research center director at a major frozen foods company and to chocolate connoisseurs at the

highly exclusive Club des Croqueurs de Chocolat, whose 150 members have assembled for their annual dinner."

- Industrial Ingredients: Food Science in Action → "Almost any frozen pizza or carton of ice cream from the grocery store contains factory-produced, lab-developed ingredients. Do these materials have a functional purpose, an aesthetic one, or both? What kind of technology is needed to create and incorporate them? This video addresses those questions as it illustrates the uses and benefits of industrial food components. With examples from real-world production facilities, the video demonstrates large-scale food processing steps like emulsification, anti-caking, and foaming; explores reasons for putting industrial ingredients into food products, such as consumer safety and quality consistency; and looks at sustainable food production, nutraceuticals, and other crucial topics."

2. **Recommendations for additions to the collection:**

New titles for this course will be purchased on the recommendations of the departmental faculty and from standard selection sources, as needed.

It would be worth seeking <u>newer</u> reference titles which accommodate this subject matter, particularly in e-format, as well as additional print / e-books focused on desserts and dessert baking, wedding cakes, and [wedding] cake decoration, particularly those written by chefs.

A list of potential titles of interest will be circulated to relevant instructors to aid in acquisition efforts for this course, which would benefit greatly from inspiring images and industry content.

3. **Library Research Support Statement:**
The Library can offer research support for specific courses – through **instructional sessions** (how to access and use our research tools, how to evaluate information and sources, how to use information ethically, etc.) as well as / or an **"embedded librarian"** in the D2L areas of Milestone course sections (if sections are to be offered to distance students in support of fully-online baccalaureate programs like Nursing; if research support at the individual or small group level, rather than classroom instruction, would be a better fit; etc.). The Library can also create **research / course guides** for Milestone course sections – tailoring links, tools, e-reserve access, and more to the students and the topic of that section.

If desired, courses can make use of all of these options and the Library is interested in investigating customized possibilities with faculty.

4. **Analysis of library's collection:**
    X This program requires no new library resources.
    ☐ Extra funding is required to adequately meet the informational needs of the program. Estimated resources needed $ _____
    ☐ No Library Assessment needed. No new content associated with this analysis.

Library Director: _____Sylvia L. Rael_____ **Date:**___12 January 2015____

DEPARTMENT WORKSHEET FOR A COURSE ADDITION
Colorado Mesa University Curriculum Committees

NOTE: Each course addition must be submitted on a separate form.

Department Name: **WCCC: Hospitality, Human Services, Education**
        If new department, please enter name:

Course prefix: **CUAR**   Course number: **179**   Credit hours: **3**

Course name: **Wines, Spirits and Beers**

Course abbreviated schedule name (24 characters maximum): **Wines, Spirits and Beers**

Contact hours per week: Lecture   Lab   Field   Studio   Other **4.5**

Type of Instructional Activity (from Table III.2 of Curriculum Policies and Procedures Manual):
Lecture/Laboratory: Vocational/Technical

Academic engagement minutes for a term: 3375   Student preparation minutes for a term: 3375

Earliest term course can be offered: **Fall**   Earliest academic year: **2015-16**

Intended semesters for offering this course: Fall ⊠   J-Term ☐   Spring ⊠   Summer ☐

Is this to be a <u>general education/essential learning</u> course? **No**   If yes, which category?

If this is a general education course,essential learning course, see requirements in Section III.L. of the Curriculum Policies and Procedures Manual at http://coloradomesa.edu/facsenate/curriculumresources.html

Is this to be an experimental course? **No**   If yes, use the Intra-Departmental Curriculum Change Memo.

List all <u>prerequisites</u> for this course. If none, indicate by checking here: ⊠

Course	Credit Hours	Course	Credit Hours
1.		2.	
3.		4.	
5.		6.	
7.		8.	
9.		10.	

List all <u>co-requisites</u> for this course. If none, indicate by checking here: ⊠

Course	Credit Hours	Course	Credit Hours
1.		2.	
3.		4.	
5.		6.	
7.		8.	
9.		10.	

(Submit a course modification request, as required, for each course listed above.)

List all programs of study for which this course will be a <u>requirement</u> or a <u>listed choice</u>, including all degrees, majors, minors, certificates, concentrations, cognates, emphases, and options. If none, indicate by checking here: ☐

	Degree Type	Program
1.	**CERT**	**Culinary Arts**
2.	**AAS**	**Culinary Arts**
3.	**CERT**	**Baking and Pastry**
4.	**AAS**	**Baking and Pastry**
5.	**AAS**	**Hospitality Management**
6.		
7.		
8.		
9.		
10.		

**(Submit a program modification request and a revised program sheet for each program listed above.
All prerequisites to this course <u>must</u> be included in each program of study listed above.)**

List all courses for which this course is to be a prerequisite or corequisite. If none, indicate by checking here: ☒

1.	2.
3.	4.
5.	6.
7.	8.
9.	10.

(Submit a course modification request, as required, for each course listed above.)

DUPLICATION: Is there overlapping content with present courses offered on campus? **Yes**
   If yes, explain: **CUAR 120 Wine and Spirits is an existing 2 credit course. The new course is a 3 credit course and adds in detail concerning brewing and the distilling processes.**

FACULTY FTE: Will additional faculty FTE be required? **No**
   If yes, explain:

EQUIPMENT: Does the course require additional equipment? **No**
   If yes, explain:

LAB FACILITIES: Does the course require additional lab facilities? **No**
   If yes, explain:

Course description as it will appear in the printed catalog:
   Explores production, marketing and service of wines, spirits and beers from around the world. Includes local and regional craft wine, spirit and beer production. Covers profitability, marketing, federal and local laws, identification of equipment, glassware, and staffing. Serving Safe Alcohol certification exam administered.

Justification for the proposed new course (enter below):

 The emergence of the Craft Brewing Industry in Colorado is reason number one for justifying the addition of this course. A report by the Boulder-based Brewers Association found that small, independent craft breweries contributed 33.9 billion to the U.S. economy in 2012. Colorado ranked no. 5 among states in economic output, at 1.6 billion, and no. 2 in per capita output, just behind Oregon. No other state cracked the top five in both categories. Additional reasons are that time constraints in our current course - which is a two credit-hour format, allows for only a modest overview of wines and spirits. Americans are being bombarded with a plethora of wines from every state in the union and 39 foreign countries, the resulting confusion has them relying more and more on front of the house staff to provide advice on selection and pairings. Students deserve to learn all there is to know about career opportunities in the alcoholic beverage side of our industry. To quote instructor Jill Youll: " When I first enrolled in culinary school I wanted to go into the catering business, but after taking my initial wine and spirits course I became interested in wine and food pairings, and the career opportunities in the front of the house."
As our students move up through the ranks to bottom-line responsible positions, a greater understanding of the beverage alcohol industry and how it relates to the food and beverage operation becomes increasingly more important.

Student learning outcomes:

Upon completion of this course, a student should be able to:

I. Apply principles of grammar and vocabulary in the alcoholic beverage industry.
II. Apply appropriate Mathematical concepts and practices in the alcoholic beverage industry.
III. Evaluate strategies for sales and marketing of alcoholic beverages.
IV. Utilize various equipment and tools used in the alcoholic beverage industry.

Topical course outline: (List of topics only. Do not attach syllabus.)

I. Safe alcohol service and the laws that apply

II. Explore and evaluate a variety of wines, beers and spirits

III. Compare and contrast grape varietals

IV. Compare and contrast Ales and Lagers

V. Compare and contrast spirits within each of the five major categories

VI. Asses marketing of alcoholic beverages in foodservice operations

VII. Assess the value of marketing locally produced alcoholic beverages

VIII. Select wines, spirits and beers to pair favorably with foods

IX. Identify measures that reduce pilferage and profit loss within the alcoholic beverage industry

X. Discuss the impacts of employee turnover in the alcoholic beverage industry

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.
NA

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

1. Submit the course catalog description to the Course Description Evaluator a week prior to the published proposal submission deadline.

2. 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: **Dan Kirby and Jill Youll**   Date: **11/21/2014**
Email: dkirby@coloradomesa.edu   Phone: 970-255-2632

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Carolyn Ferreira-Lillo**   Date: **11/30/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **Sundermann Brigitte**   Date: **12/4/2014**

Library Curriculum Assessment
Tomlinson Library
Colorado Mesa University

The following form is a snapshot of the library's collection in support of new curriculum areas and/or course additions.

Date of assessment: _____06 January 2015_____

Collection under review: _____CUAR 179: Wines, Spirits and Beers_____

Program level: Certificate   Associates   **Bachelors**   Masters

Delivery mode: _____Lecture/Lab: Vocational/Technical____

Library Liaison: ____Cantwell, Laureen____

1. **Current Collection Review**

   a. **Reference Sources:**

   A keyword search for → wine OR beer OR alcohol OR liquor OR liqueur → displayed many results, 11 of which are reference titles – only 2 of which we estimate would be very useful for CUAR 179 students:

   - Rabin, D., & Forget, C. (1998). *The dictionary of beer and brewing.* 2nd ed. Chicago: Fitzroy Dearborn.
   - Blocker, J. S., Fahey, D. M., & Tyrrell, I. R. (2003). *Alcohol and temperance in modern history: an international encyclopedia.* Santa Barbara, Calif.: ABC-CLIO.

   b. **Monographic Sources:**

   To catch a broad swath of wines-/beers-/spirits-related content within our catalog, several searches were performed. The table below details the monographic holdings of the library for those searches.

Search tactic:	Print	E-Book
wine (keyword), non-fiction	138 (44 since 2000)	47 (not all relevant)
beer (keyword), non-fiction	113 (47 since 2000)	50

spirits OR whiskey OR vodka OR gin OR rum OR liquor OR liqueur (keyword)	916 (~300 since 2000)	256 (not all relevant)
Beer industry OR brewing OR brewing industry (subject headings)	9	6
LC Call Number Section	**Print**	**E-Book**
TP548 (wine and wine making)	40	18

* NOTE: Items may have appeared in more than one set of search results; each list may duplicate titles from the other subject areas listed as well.

Selection of print and electronic titles regarding wine (titles in bold):

- Pedersen, B. M. (1997). *Bottle design: beer, wine, spirits.* [New York, N.Y.]: Graphis.
- Miller, R. W., & United States. Food and Drug Administration. Office of Public Affairs. (1987). *Beer, nonalcoholic wine: how close to the real thing?* Rockville, Md.: Dept. of Health and Human Services, Public Health Service, Food and Drug Administration, Office of Public Affairs. ***government publication***
- American Chemical Society., Gump, B. H., Pruett, D. J., American Chemical Society. Division of Industrial and Engineering Chemistry., & American Chemical Society. Meeting. (1993). *Beer and wine production: analysis, characterization, and technological advances.* Washington, DC: American Chemical Society.
- D'Agata, I., & Ebooks Corporation. (2014). *Native wine grapes of Italy.* University of California Press.
- Brabazon, T., Winter, M., Gandy, B., & SpringerLink (Online Service). (2014). *Digital wine: how QR codes facilitate new markets for small wine industries.* Springer.
- Goldstein, E., & Ebooks Corporation. (2014). *Wines of South America: the essential guide.* University of California Press.
- Tomasi, D., Gaiotti, F., Jones, G. V., & SpringerLink (Online Service). (2013). *The power of the terroir: the case study of prosecco wine.* Springer.
- Ebooks Corporation., Mencarelli, F., & Tonutti, P. (2013). *Sweet, reinforced, and fortified wines: grape biochemistry, technology, and vinification.* John Wiley & Sons, Inc.
- Thornton, J. A., & Ebooks Corporation. (2013). *American wine economics: an exploration of the U.S. wine industry.* University of California Press.
- Coates, C., & Ebooks Corporation. (2013). *My favorite burgundies.* University of California Press.
- SpringerLink (Online service)., & Dougherty, P. H. (2012). *The geography of wine: regions, terroir and techniques.* Springer.
- Smyth, M., Russell, J., Milanowski, T., & SpringerLink (Online Service). (2011). *Solar energy in the winemaking industry.* Springer.
- SpringerLink (Online service)., & Delrot, S. (2010). *Methodologies and results in grapevine research.* Springer.
- SpringerLink (Online service)., König, H., Unden, G., & Fröhlich, J. (2009). *Biology of microorganisms on grapes, in must and in wine.* Springer-Verlag.
- SpringerLink (Online service), Moreno-Arribas, M. V., & Polo, M. C. (2009). *Wine chemistry and biochemistry.* Springer.
- Fugelsang, K. C., Edwards, C. G., & SpringerLink (Online service). (2007). *Wine microbiology: practical applications and procedures.* 2nd ed. Springer.
- Jacobson, J. L., & SpringerLink (Online service). (2006). *Introduction to wine laboratory practices and procedures.* Springer.

Selection of print and electronic titles regarding beer (titles in bold):

- Funderburg, J. A. (2014). *Bootleggers and beer barons of the Prohibition era.* McFarland & Company, Inc., Publishers.
- American Chemical Society., Gump, B. H., Pruett, D. J., American Chemical Society. Division of Industrial and Engineering Chemistry., & American Chemical Society. Meeting. (1993). *Beer and wine production: analysis, characterization, and technological advances.* Washington, DC: American Chemical Society.
- Baum, D. (2001). *Citizen Coors: a grand family saga of business, politics, and beer.* 1st Perennial ed. New York: Perennial.
- Nachel, M., Ettlinger, S., & Ebooks Corporation. (2012). *Beer for dummies.* 2nd ed. Wiley.
- SpringerLink (Online Service)., Patterson, M., & Hoalst-Pullen, N. (2014). *The geography of beer: regions, environment, and societies.* Springer.
- Cornell, M., & National Association Breweriana Advertising. (2000). *Martyn Cornell's beer memorabilia: collecting the best from around the world.* Edison, N.J.: Chartwell Books.
- Kennedy, J. G. (1978). *Tarahumara of the Sierra Madre: beer, ecology, and social organization.* Arlington Heights: AHM Pub. Corp.
- Pedersen, B. M. (1997). *Bottle design: beer, wine, spirits.* [New York, N.Y.]: Graphis.
- Schiefenhövel, W., & Macbeth, H. M. (2011). *Liquid bread: beer and brewing in cross-cultural perspective.* New York: Berghahn Books.
- Collins, T., & Vamplew, W. (2002). *Mud, sweat and beers: a cultural history of sport and alcohol.* Oxford [England]; New York: Berg.
- Baum, D. (2000). *Citizen Coors: an American dynasty.* New York: William Morrow.
- Patterson, M. & Hoalst-Pullen, N. (2014). *The geographies of beer: Regions, environment, and society.* Springer Netherlands.
- Tom Acitelli. (2013). *The Audacity of hops: The history of America's craft beer revolution.* Chicago Review Press.

Selection of print and electronic titles regarding alcohol and spirits, more generally or other than beer and wine:

- Rasmussen, S. C.. (2014). *The quest for aqua vitae: the history and chemistry of alcohol from antiquity to the Middle Ages.* Springer.
- Chevalier, M., Mazzalovo, G. (2012). *Luxury brand management: a world of privilege.* 2nd ed. John Wiley & Sons.
- Fuggetta, R. (2012). *Brand advocates: turning enthusiastic customers into a powerful marketing force.* Wiley.
- McGovern, P. E. (2009). *Uncorking the past: the quest for wine, beer, and other alcoholic beverages.* Berkeley: University of California Press.
- Thompson, P. (1999). *Rum punch & revolution: taverngoing & public life in eighteenth century Philadelphia.* Philadelphia: University of Pennsylvania Press.
- Waugh, A., & Time-Life Books. (1968). *Wines and spirits.* New York: Time-Life Books.
- Engelmann, L. (1979). *Intemperance, the lost war against liquor.* New York: Free Press.
- Boyd, S. R. (1985). *The Whiskey Rebellion: past and present perspectives.* Westport, Conn.: Greenwood Press.
- Baldwin, L. D. (. D., & Western Pennsylvania Historical Survey. (1939). *Whiskey rebels: the story of a frontier uprising.* [Pittsburgh]: University of Pittsburgh Press.
- Johnson, H. (1971). *The world atlas of wine: a complete guide to the wines & spirits of the world.* New York: Simon and Schuster.
- Peck, G. (2009). *The prohibition hangover: alcohol in America from demon rum to cult cabernet.* New Brunswick, N.J.: Rutgers University Press.

- Noe, F. & Kokoris, J. (2012). *Beam, straight up: the bold story of the first family of bourbon.* John Wiley & Sons.
- Montagné, P., Turgeon, C., & Froud, N. (1961). *Larousse gastronomique: the encyclopedia of food, wine & cookery.* New York: Crown Publishers.

Books, and other items, physically delivered from other institutions are free to students, staff, and faculty at CMU and provides valuable support for those engaged in research and scholarship, as these Milestone students will be. **Interlibrary loan** of books and other non-article/non-chapter content takes 3-5 days on average, which is not overly long but which does underscore the importance of the Library building strong monographic support for Milestone course sections as much as possible. Our interlibrary loan service can also aid the Library in assessing frequently requested items for appropriate additions to our collection.

c. **Periodicals (online and print):**

We carry several subscriptions that may be relevant to this course:
- *Journal of Wine Research* (Academic Search Complete & Business Source Complete, 1990-2013, with 18 month embargo)
- *Brandweek* (LexisNexis, 1991-2011)
- *The New York Times* (US History in Context, 1980-current)
- *The New York Times Magazine* (significant backfile in print & microfilm; no electronic access)
- *Wall Street Journal* (backfile in print & microfilm; no electronic access)
- *Caterer & Hotelkeeper* (Business Source Complete, 2002-current)
- *New Statesman* (1996-current in variety of EBSCO databases & LexisNexis)
- *Sunset* (OmniFile Full Text Select, 1994-current)
- *Restaurant Business* (Business Source Complete, 1995-current)

Interlibrary loan is a quick, efficient, and useful supplement to our collections, as well, with an average turn-around time of just 11 hours for articles. Such fast request-to-delivery times greatly aid students in their information needs being addressed and processed as close to the time of need as possible. As students often work close to deadlines so must our services work as favorably with those deadlines as they can.

d. **Electronic Resources:**

Databases that have articles and/or indexed content on wine, beer, and spirits:

- **Lexis-Nexis**
- **Academic Search Complete** [searched: wine OR beer OR liquor OR liqueur → limited to subjects: wine & winemaking, beer, wine industry, liquors, brewing industry] – over 15,000 results, with over 10,000 available full-text.

- Popular publications from these results included: newspapers (*New York Times*, *Wall Street Journal*), *New Statesman*, *Brandweek*, and the *Journal of Wine Research*.
- **OmniFile Full Text Select** [searched: wine OR beer OR liquor OR liqueur → limited to subjects: wine & wine making, beer, wine industry, brewing industry, restaurants – alcohol service, wine tasting] – over 2,000 results in full-text.
  - Popular publications from these results included: *Caterer & Hotelkeeper*, *Sunset*, and *Restaurant Business*
- **Business Source Complete** [searched: wine OR beer OR liquor OR liqueur → limited to subjects: wine & wine making, wine industry, food industry, beer industry, wineries, beverage industry, alcoholic beverage industry] – over 50,000 results with over 20,000 available full-text.
  - Over 24,000 of these 50,000 results were in *Wine Spectator*.

e. **Media:**

The Library subscribes to *Films on Demand* – a streaming video service from Films Media Group. This service includes educational films, documentaries, and PBS publications. These films can be accessed through course content links added to D2L, if the faculty member chooses, for convenient access to the student(s) and/or can be streamed into the physical classroom as well.

A search for → wine OR beer OR whiskey OR vodka OR gin OR rum OR liquor OR liqueur …results in about 150 eVideos from this collection, including (titles in bold):

- Films for the Humanities & Sciences (Firm), Films Media Group, & Hiltz Squared Media Group Inc. (2013). ***Women Who Brew: Breaking the Glass Ceiling for the Love of Beer.*** Films Media Group.
- Films for the Humanities & Sciences (Firm), Films Media Group, & WPA Film Library. (2011). ***The WPA Film Library: Protests Against the Price of Beer, ca. 1937.*** Films Media Group.
- Business2Learn, L., Films for the Humanities & Sciences (Firm), & Films Media Group. (2012). ***How I Made My Millions: Merlot Skin Care, Method, Miche Bag, and Schlafly Beer.*** Films Media Group.
- Films for the Humanities & Sciences (Firm), & Films Media Group. (2014). ***What Do Beer, Dogs, And Soy Sauce Have In Common?*** Films Media Group.
- Films for the Humanities & Sciences (Firm), Films Media Group, & First Hand Films (Firm). (2012). ***Beer Is Cheaper Than Therapy: Fort Hood's PTSD Problem.*** Films Media Group.
- BBC Worldwide Ltd., Films for the Humanities & Sciences (Firm), & Films Media Group. (2014). ***Whiskey.*** Films Media Group.
- Films for the Humanities & Sciences (Firm), Films Media Group, & Collegia Capital, L. (2012). ***Sorrows of Gin.*** Films Media Group.
- Canadian Broadcasting Corporation, Films for the Humanities & Sciences (Firm)., & Films Media Group. (2014). ***Thirst for Profits: Selling Alcohol.*** Films Media Group.

- Business2Learn, L., Films for the Humanities & Sciences (Firm), & Films Media Group. (2012). *Starting a Wine Shop.* Films Media Group.
- Films for the Humanities & Sciences (Firm), Films Media Group, & Marathon Film Productions. (2006). *The Wine wars.* Films Media Group.
- Films for the Humanities & Sciences (Firm), Films Media Group, & NBC News. (2009). *American Originals: Budweiser.* Films Media Group.
- Films for the Humanities & Sciences (Firm), Films Media Group, & Open University. (2008). *Last call for Guinness?: a famous brand adapts to the 21st century.* Films Media Group.
- Films for the Humanities & Sciences (Firm), Films Media Group, & Public Broadcasting Service (U.S.). (2013). *A Nation of Hypocrites: Prohibition - A Film by Ken Burns and Lynn Novick.* Films Media Group.
- A&E Television Networks, L., Films for the Humanities & Sciences (Firm), & Films Media Group. (2011). *Empires of Industry: Brewed in America.* Films Media Group.
- American Public Television, Films for the Humanities & Sciences (Firm)., & Films Media Group. (2011). *Rick Steves' Europe: Burgundy - Profoundly French.* Films Media Group.

2. Recommendations for additions to the collection:

New titles for this course will be purchased on the recommendations of the departmental faculty and from standard selection sources, as needed. **It would be worth seeking newer/updated reference titles, particularly in e-formats, for subjects fitting this course, as well as additional print / e-books focused on microbreweries, homebrewing, craft brewing, brewing traditions, agritourism, mixology, and additional liquors/spirits (vodka, sake, bourbon, etc.), as we have few titles incorporating that terminology.** We may also wish to consider subscribing to popular culinary periodical titles electronically (*Saveur*, *Wine Spectator*, *Gourmet*, *Food & Wine*, etc.) and pursuing content related to wine education and wine tastings.

3. Library Research Support Statement:

The Library can offer research support for specific courses – through **instructional sessions** (how to access and use our research tools, how to evaluate information and sources, how to use information ethically, etc.) as well as / or an **"embedded librarian"** in the D2L areas of Milestone course sections (if sections are to be offered to distance students in support of fully-online baccalaureate programs like Nursing; if research support at the individual or small group level, rather than classroom instruction, would be a better fit; etc.). The Library can also create **research / course guides** for Milestone course sections – tailoring links, tools, e-reserve access, and more to the students and the topic of that section.

If desired, courses can make use of all of these options and the Library is interested in investigating customized possibilities with faculty.

4. Analysis of library's collection:

    X This program requires no new library resources.

    ☐ Extra funding is required to adequately meet the informational needs of the program. Estimated resources needed $ _____

    ☐ No Library Assessment needed. No new content associated with this analysis.

Library Director: _____Sylvia L. Rael_____ **Date:**___12 January 2015____

DEPARTMENT WORKSHEET FOR A COURSE MODIFICATION
Colorado Mesa University Curriculum Committees

NOTE: Each course modification must be submitted on a separate form.

Department Name: **WCCC: Hospitality, Human Services, Education**

Earliest term course can be offered: **Fall**   Earliest academic year: **2015-16**

Intended semesters for offering this course: Fall ☒   J-Term ☐   Spring ☒   Summer ☐

If there is no change to the course, but is specifically required (or no longer required) for a degree, certificate, or minor, this form is **NOT** to be completed. A **Program** Modification form needs to be completed instead.		
	PRESENTLY OFFERED AS: (Fill in this column completely**)**	**PROPOSED TO BE OFFERED AS:** (Fill in ONLY if item is to be revised)
Course Prefix	CUAR	
Course Number This can NOT be modified.	163	Please submit a course add and a course delete form if a course number is to be changed.
Course Title	Advanced Cake Decorating - Wedding	Advanced Wedding Cakes
Short title for schedule (max 24 char.)	Adv Cake Decorating	Adv Wedding Cakes
Credit Hours	3	
Contact Hours **(per week per semester)** There is a CDHE required minimum. Check with Academic Affairs if unsure.	Lecture: Lab: Field: Studio: Other: **4.5**	Lecture: Lab: Field: Studio: Other:
Type of Instructional Activity (from Table III.2 of Policies Manual)	Lecture/Laboratory: Vocational/Technical	Lecture/Laboratory: Vocational/Technical
Academic engagement minutes for a term	3375	
Student preparation minutes for a term	3375	
Prerequisites	Course Cr Hr 1. CUAR 145 4 2. 3. 4. 5. 6. 7. 8. 9. 10. If none, check here: ☐	Course Cr Hr 1. CUAR 145 4 2. CUAR 160 5 3. 4. 5. 6. 7. 8. 9. 10. If none, check here: ☐

	Course Cr Hr	Course Cr Hr
Co-requisites	1. 2. 3. 4. 5. 6. 7. 8. 9. 10. If none, check here: ☒	1. 2. 3. 4. 5. 6. 7. 8. 9. 10. If none, check here: ☐
General Education/ Essential Learning	If in General Education/Essential Learning, specify category. Otherwise, select "None".	If proposing to add to General Education/Essential Learning, specify category. If proposing to drop from Gen Ed, specify "Drop"
	None	
Catalog Description	Introduction to advanced cake production techniques, and the equipment used in the modern bakery to craft wedding and specialty cakes.	Refinement of skills in the creation of specialty cakes. Wedding cakes and other tiered cakes for special events.

List all programs of study for which this course will be a <u>requirement</u> or a <u>listed choice</u>, including all degrees, majors, minors, certificates, concentrations, cognates, emphases, and options. If none, indicate by checking here: ☐

	Degree Type	Program
1.	**CERT**	**Baking and Pastry Arts**
2.	**AAS**	**Baking and Pastry Arts**
3.	**AAS**	**Culinary Arts**
4.		
5.		
6.		
7.		
8.		
9.		
10.		

(Submit a program modification request and a revised program sheet for each program listed above. All prerequisites to this course <u>must </u>be included in each program of study listed above.)

Justification for the proposed course modification: (enter below)

This course was approved as CUAR 161 and was correct by Academic affairs as CUAR 163.

The creation of Wedding Cakes is one of the most lucrative skills a person can have in the baking industry. Students who have completed CUAR 160 Cake Decorating will be able to build upon the skills learned in that course examining different techniques in: fondant, stenciling, and air brushing, assembling a 3 tiered wedding cake and evaluating transportation and pricing strategies in this course.

Student Learning Outcomes, current:

Upon completion of this course, a student should be able to:

   I.   Apply principles of grammar and vocabulary in the field of Baking and Pastry
   II.   Apply appropriate Mathematical concepts and practices to the field of Baking and Pastry
  III.   Evaluate strategies for production and sales of dessert products
  IV.   Identify, formulate, and assess a variety of specialty cakes
   V.   Identify, define and utilize various equipment an tools used in dessert production

VI.   Produce a variety of cakes, icings, fillings and enrobing materials using a variety of ingredients and methods.

Student Learning Outcomes, proposed:
Upon completion of this course, a student should be able to:

I.   Apply principles of grammar and vocabulary in the Wedding Cakes industry.
II.   Apply appropriate Mathematical concepts and practices in the production and pricing of wedding cakes.
III.   Evaluate styles and patterns of design in the wedding cake market.
IV.   Identify market trends in the pricing, packaging and branding of wedding cakes.
V.   Design cakes using different techniques in fondant, stenciling, and air brush.
VI.   Produce a three tiered Wedding Cake using various textures, icings, and design techniques.

Topical course outline, current: (List of topics only. Do not attach syllabus.)

I.   Introduction to tools and equipment
II.   Introduction to new ingredients
III.   Introductions to cost control methods
IV.   Introduction to planning and conceptualization of wedding and specialty cakes
V.   Introduction to components utilized in production of wedding and specialty cakes
VI.   Incorporation of components into wedding and specialty cakes
VII.   Production of wedding and specialty cakes

Topical course outline, proposed:

I.   Introduction to the tools used in the production of tiered wedding cakes
II.   Introduction to the sizing of wedding cakes
III.   Produce cakes using fondant
IV.   Produce cakes using the Wilton method of royal string work
V.   Produce gum paste work in floral, sculpting, and lace
VI.   Introduction to the process of cutting the wedding cake
VII.   Discuss different presentations in displaying wedding cakes
VIII. Introduction to different separation techniques
IX.   Discuss color palettes, patterns and styles
X.   Discuss wedding cake construction for support during transportation and delivery
XI.   Discuss business plans, marketing, and pricing
XII.   Discuss electronic marketing as it applies to wedding cakes

Discuss the proposal with all departments affected by the proposal.
List the departments and the date and outcome of the discussion below:
N/A

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: **Daniel Kirby and Debra Henderson**   Date: **11/5/2014**
Email: **dkirby@coloradomesa.edu**   Phone: **970-255-2632**

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:

Name: **Carolyn Ferreira-Lillo**   Date: **11/30/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **Sundermann Brigitte**   Date: **12/4/2014**

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.

COLORADO MESA UNIVERSITY

DEPARTMENT WORKSHEET FOR A COURSE MODIFICATION
Colorado Mesa University Curriculum Committees

NOTE: Each course modification must be submitted on a separate form.

Department Name: **WCCC: Hospitality, Human Services, Education**

Earliest term course can be offered: **Fall**   Earliest academic year: **2015-16**

Intended semesters for offering this course: Fall ☒   J-Term ☒   Spring ☒   Summer ☒

If there is no change to the course, but is specifically required (or no longer required) for a degree, certificate, or minor, this form is **NOT** to be completed. A **Program** Modification form needs to be completed instead.		
	PRESENTLY OFFERED AS: (Fill in this column completely**)**	**PROPOSED TO BE OFFERED AS:** (Fill in ONLY if item is to be revised)
Course Prefix	CUAR	
Course Number This can NOT be modified.	281	Please submit a course add and a course delete form if a course number is to be changed.
Course Title	Internship	
Short title for schedule (max 24 char.)	Internship	
Credit Hours	2-6	1-6
Contact Hours **(per week per semester)** There is a CDHE required minimum. Check with Academic Affairs if unsure.	Lecture: Lab: Field: **5** Studio: Other:	Lecture: Lab: Field: **2.5** Studio: Other:
Type of Instructional Activity (from Table III.2 of Policies Manual)	Internship/Practicum	Internship/Practicum
Academic engagement minutes for a term	On-the-job learning experience guideed by a contract that specifies student learning objectives, assignment & hours	
Student preparation minutes for a term	Credit hour must match the corresponding CMU coursetype. Academic engagement plus student preparation minutes must be minimum of 2250 minutes per credit hour.	
Prerequisites	Course Cr Hr 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. If none, check here: ☒	Course Cr Hr 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. If none, check here: ☒

	Course	Cr Hr	Course	Cr Hr
Co-requisites	1. 2. 3. 4. 5. 6. 7. 8. 9. 10. If none, check here: ☒		1. 2. 3. 4. 5. 6. 7. 8. 9. 10. If none, check here: ☒	
General Education/ Essential Learning	If in General Education/Essential Learning, specify category. Otherwise, select "None".		If proposing to add to General Education/Essential Learning, specify category. If proposing to drop from Gen Ed, specify "Drop"	
	None			
Catalog Description	Places students in an actual work situation where they participate in the operation of a foodservice establishment.		Work situations in hospitality industry establishments.	

List all programs of study for which this course will be a <u>requirement</u> or a <u>listed choice</u>, including all degrees, majors, minors, certificates, concentrations, cognates, emphases, and options. If none, indicate by checking here: ☐

	Degree Type	Program
1.	**CERT**	**Culinary Arts**
2.	**CERT**	**Baking and Pastry Arts**
3.	**AAS**	**Culinary Arts**
4.	**AAS**	**Baking and Pastry Arts**
5.		
6.		
7.		
8.		
9.		
10.		

**(Submit a program modification request and a revised program sheet for each program listed above.
All prerequisites to this course <u>must </u>be included in each program of study listed above.)**

Justification for the proposed course modification: (enter below)

Internships from 2-6 credit hours are already established in the course catalogue, this modification will give students a one credit hour option. We have added a topics course: internship – one credit hour course in the past to meet student demand.   Changing the credits to 1 credit will eliminate the need for the topic course.

Student Learning Outcomes, current:

Upon completion of this course, a student should be able to:

1. Demonstrate to employers that they have work experience.
2. Demonstrate confidence in their ability to complete tasks required to be successful in a job.
3. Assess whether or not this career choice will be satisfying to them.

Student Learning Outcomes, proposed:

Upon completion of this course, a student should be able to:

N/A

Topical course outline, current: (List of topics only. Do not attach syllabus.)

1. Plan individualized internship with site training supervisor, and the Culinary Arts internship instructor.

2. Fulfill contract agreements.

3. Practice all company safety procedures

4. Demonstrate effective oral/written communication skills.

5. Function as a positive contributing member of the team.

6. Exhibit positive behavior, cooperate, and get along with others while on the job.

7. Write a paper describing the internship experience and present to your instructor

Topical course outline, proposed:

N/A

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

N/A

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: **Daniel Kirby**   Date: **11/30/2014**
Email: **dkirby@coloradomesa.edu**   Phone: **255-2632**

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Carolyn Ferreira-Lillo**   Date: **11/30/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **Sundermann Brigitte**   Date: **12/4/2014**

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.

Curriculum Proposal from:

1. Culinary Arts

2. WCCC: Hospitality, Human Services, Education

3. **Daniel Kirby**- 255-2632, dkirby@coloradomesa.edu

Program Modification: Changes to the 2015-2016 programs in:

- A.A.S Baking and Pastry
- A.A.S Culinary Arts
- Cert Baking and Pastry
- Cert Culinary Arts

WCCC AAS and Certification programs follow the Colorado Community College system for culinary degrees. Based on the CCC changes the following changes were made to Culinary Arts programs. Addition of the new course, course title change, and course description change, to better follow the Colorado Community College system. Because of the course additions the sequence of the courses was modify to make way for the new courses.

The program sheet for the A.A.S Baking and Pastry, A.A.S Culinary Arts, Cert Baking and Pastry, and Cert Culinary Arts have been changed to reflect these updates.

Justification:

WCCC AAS programs follow the Colorado Community College system for culinary degrees

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: Hospitality, Human Services, Education**
        If new department, please enter name:

Proposal Type: **Program Modification**

PROGRAM: Degree type: **AAS**   Program/degree Name: **Baking and Pastry**
                                         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: **No**
>If change to the concentration/emphasis, enter: **No**
>Is there a revision to the program sheet? **Yes**

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: **Daniel Kirby**   Date: **11/30/2014**
Email: **dkirby@coloradomesa.edu**   Phone: **25532**

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Carolyn Ferreira-Lillo**   Date: **11/30/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **Sundermann Brigitte**   Date: **12/4/2014**

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.

2014-2015 2015-2016 **PETITION/PROGRAM SHEET**
Degree: Associate of Applied Science
Major: Baking and Pastry

WESTERN COLORADO
COMMUNITY COLLEGE
A Division of Colorado Mesa University

About This Major. . .

This program will prepare students for employment in the field of baking and the art of pastries. The Associate of Applied Science program will develop the students' skills and understanding in the production of chocolates, confections, pastries, ice creams and frozen desserts, yeast products, quick breads, sculpted items, sugar work, use of fruits and international desserts. Business and management courses to be taken include nutrition, purchasing, supervision, and business information technology.

Upon completion of the program, students will be prepared for an entry-level position in the broad and expanding hospitality/industry as well as prepared to continue for advanced study in the Bachelor of Applied Science in Hospitality Management.

All CMU associate 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. Apply principles of safety and sanitation to workplace settings. (Applied Learning)
2. Apply mathematical concepts and practices to the field of baking and pastry as a basis for accurate ingredient measurements, high altitude adjustment, and formula yield conversion. (Quantitative Fluency)
3. Apply appropriate vocabulary used in the field of baking and pastries for equipment, tools, ingredients and menu items. (Specialized Knowledge/ Communication Fluency)
4. Identify, formulate and assess a variety of baked products. (Specialized Knowledge)

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:
- Minimum of 63-65 hours total (A minimum of 16 taken at CMU in no fewer than two semesters)
- 2.00 cumulative GPA or higher in all CMU coursework
- A grade of "C" or higher must be achieved in coursework toward major content area.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Program sheets are for advising purposes only. Because a program may have requirements specific to the degree, check with your advisor for additional guidelines, including prerequisites, grade point averages, grades, exit examinations, and other expectations. It is the student's responsibility to be aware of, and follow, all guidelines for the degree being pursued. Any exceptions or substitutions must be approved by the faculty advisor and/or Department Head. Courses related to teacher licensure must also be approved by the Teacher Education Dept.
- 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 (Minimum 15 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

Communication (6 semester hours)
ENGL 111 English Composition   3   _____ _____
ENGL 112 English Composition   3   _____ _____

-OR-

ENGL 111 English Composition **and**   3   _____ _____
SPCH 101 Interpersonal Communication **or** 3 _____ _____
SPCH 102 Speechmaking   3   _____ _____

Course No Title   Sem.hrs Grade Term

Mathematics (Minimum 3 semester hours)
MATH 107 Career Math or higher

MATH 1___ _____   3   _____ _____

Social Sciences, Natural Science, Fine Arts, or Humanities or Applied Studies Courses* (Minimum 6 semester hours)
_____ ____ _____   3   _____ _____
_____ ____ _____   3   _____ _____

OTHER LOWER DIVISION REQUIREMENTS
Wellness (2 semester hours)
KINE 100   Health and Wellness   1   _____ _____
KINA 1____ _____   1   _____ _____

ASSOCIATE OF APPLIED SCIENCE: COURSE REQUIREMENTS
(46 48 semester hours)

CUAR 100   Culinary Fundamentals   3   _____ _____
CUAR 101   Food Safety & Sanitation   2   _____ _____
CUAR 125   Intro to Foods   4   _____ _____
CUAR 145   Intro to Baking   4   _____ _____
CUAR 150   Baking: Decorating/Presenting 3   _____ _____
CUAR 151   Intermediate Breads   3   _____ _____
CUAR 152   Individual Fancy Desserts   3   _____ _____
CUAR 156   Nutrition for Hospitality   3   _____ _____
CUAR 160 Cake Decorating   5   _____ _____
CUAR 163   Adv. Cake Decorating   3   _____ _____
CUAR 236   Advanced Baking   3   _____ _____
CUAR 255   Supervision in Hospitality   3   _____ _____
CUAR 262   Purchasing in Hospitality   3   _____ _____
CISB 101   Business Info Technology   3   _____ _____

Electives: Choose 6 semester hours from electives list below.
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____

CUAR 115 Intro to Sustainable Cuisine Culinary Sustainability   3
CUAR 153   Confectionaries   3
CUAR 163   — Adv. Wedding Cakes Decorating 3
CUAR 179 Wine, Spiririts and Beer   3
CUAR 251   Advanced Garde Manger   3
CUAR 261   Cost Controls   3
CUAR 269   Dietary Baking   3
CUAR 271   Techniques of Competition   3
CUAR 281   Internship   1-6 1-6

Additional expenses – Students in Baking and Pastry Arts may be required to purchase or have cooking/baking tools and appropriate chef's clothing. This does not included required textbooks. These costs vary with student needs and brand or quality of tools purchased.

*Please see your advisor for requirements specific to this program.

SUGGESTED COURSE SEQUENCING FOR A MAJOR IN BAKING AND PASTRY

This is a recommended sequence of course work. Certain courses may have prerequisites or are only offered 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
CUAR 100 Culinary Fundamentals	3	CUAR 125 Intro to Foods	4
CUAR101 Food Safety and Sanitation	2	CUAR150 Decorating & Presenting	3
CUAR 145 Intro to Baking	4	CUAR 152 Individual Fancy Desserts	3
ENGL 111 English Composition	3	CUAR 156 Nutrition for Hospitality	3
KINA XXX Activity	1	ENGL 112 English Composition OR SPCH 101/102	3
Social Sciences, Natural Science, Fine Arts or Humanities or Selected Applied Studies Courses	3	~~MATH107 Career Math~~	~~3~~
	16		16

SOPHOMORE YEAR

Fall Semester	Hours	Spring Semester	Hours
CUAR 151 Intermediate Breads	3	~~CUAR 236 Advanced Baking~~	~~3~~
~~CUAR 152 Individual Fancy Desserts~~	~~3~~	CUAR 255 Supervision in Hospitality	3
~~CUAR 161 Adv. Cake Decorating~~	~~3~~	CUAR XXX Electives	6
CUAR 236 Advanced Baking	3	CUAR 160 Cake Decorating	5
CUAR 262 Purchasing in Hospitality	3	**Social Sciences, Natural Science, Fine Arts or Humanities** or a Selected Applied Studies Courses	3
KINE100 Health & Wellness	1		17
MATH107 Career Math	3		
CISB101Business Info Technology	~~3~~		
Or			
OFAD 118 Intro to PC Applications	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.

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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 may be required to take a Major Field Achievement Test (exit exam).

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: Hospitality, Human Services, Education**
        If new department, please enter name:

Proposal Type: **Program Modification**

PROGRAM: Degree type: **AAS**   Program/degree Name: **Culinary Arts**
                                         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: **No**
  If change to the concentration/emphasis, enter: **No**
  Is there a revision to the program sheet? **Yes**

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: **Daniel Kirby**   Date: **11/10/2014**
Email: **dkirby@coloradomesa.edu**   Phone: **970-255-2632**

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Carolyn Ferreira-Lillo**   Date: **11/30/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **Sundermann Brigitte**   Date: **12/4/2014**

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.

![Western Colorado Community College logo]

2014-20152015 - 2016 **PETITION/PROGRAM SHEET**
Degree: Associate of Applied Science
Major: Culinary Arts

About This Major . . .

Students in the Culinary Arts Program learn the fundamental skills and techniques needed to succeed in the professional kitchen. Areas of study include; Safety and Sanitation, Nutrition, Food Preparation, Baking, Dining Room Management, Wine and Spirits, Hospitality Supervision, Cost Controls, and Purchasing. Students choose from elective courses in garde manger, international cuisine, techniques of competition, or an on the job internship. The curriculum meets the requirements of the American Culinary Federation. Upon completion of the program, students will be prepared for an entry-level position in the broad and expanding hospitality industry, as well as prepared to continue for advanced study in the Bachelor of Applied Science in Hospitality Management.

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

All CMU associate 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. Use information on an assigned topic to address a course or discipline related question or a question of practice in a workplace setting. (Applied Learning)
2. Apply appropriate mathematical concepts to the field of culinary arts as a basis for menu planning, purchasing and recipe conversion. (Quantitative Fluency)
3. Evaluate strategies for production and sales of food products, identify, formulate, and assess a variety of food products. (Critical Thinking/ Specialized Knowledge)
4. Interact with customers in dining room to present and explain the menu, the ingredients, and the cooking and baking methods, using best marketing practices while meeting the need of the customer. (Applied Learning/ Communication Fluency)

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:
- Minimum 65 66 semester hours total (A minimum of 16 taken at CMU in no fewer than two semesters)
- A cumulative grade point average of 2.0 or higher must be maintained for all courses taken and a "C" or better must be achieved in coursework toward major content area.
- 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 (Minimum 15 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

Communication (6 semester hours)
ENGL 111 English Composition	3	____	____
ENGL 112 English Composition	3	____	____
-OR-			
ENGL 111 English Composition **and**	3	____	____
SPCH 101 Interpersonal Communication **or**	3	____	____
SPCH 102 Speechmaking	3	____	____

Mathematics: (Minimum 3 semester hours) Minimum MATH **107** Career Mathematics or higher
_____ ____ _____ 3 ____ _____

Social Sciences, Natural Science, Fine Arts or Humanities or Selected Applied Studies Courses* (Minimum 6 semester hours)
_____ ____ _____ 3 ____ _____
_____ ____ _____ 3 ____ _____

OTHER LOWER DIVISION REQUIREMENTS
Course No Title	Sem.hrs	Grade	Term/Trns

Wellness (2 semester hours)
KINE 100	Health and Wellness	1	____ _____
KINA 1____ _____	1	____ _____

ASSOCIATE OF APPLIED SCIENCE: CULINARY ARTS REQUIREMENTS
(48 49 semester hours)

Core Classes
CUAR 100	Culinary Fundamentals	3	____ _____
CUAR 101	Food Safety and Sanitation	2	____ _____
CUAR 115	Intro to Sustainable Cuisine	3	_____
CUAR 120	Wine and Spirits	2	
CUAR 125	Introduction to Foods	4	____ _____
CUAR 129	Center of the Plate	4	____ _____
CUAR 145	Introduction to Baking	4	____ _____
CUAR 156	Nutrition for the Hospitality Professional	3	____ _____
CUAR 179	Wines, Spirits, & Beer	3	
CUAR 190	Dining Room Management	4	____ _____
CUAR 233	Advanced Line Prep & Cookery	4	____ _____
CUAR 255	Supervision in the Hospitality Industry	3	____ _____
CUAR 261	Cost Controls	3	____ ____
CUAR 262	Purchasing for the Hospitality Industry	3	____ _____
CISB 101	Business Info Technology	3	____ ____
	Or		
OFAD 118	Intro to PC Application	3	
CUAR Electives		6	____ _____
CUAR ____ _____	__	____ _____
CUAR ____ _____	__	____ _____
CUAR ____ _____	__	____ _____

Electives
(Choose 6 semester hours from the list below)

CUAR 245 International Cuisine 3
CUAR 251 Advanced Garde Manger 3
CUAR 261 Cost Controls 3

CUAR 271 Techniques of Culinary Competition – hot food 3
CUAR 272 Techniques of Culinary Competition – cold food 3
CUAR 281 Internship (1-6)

Additional expenses – Students in Culinary Arts may be required to purchase or have cooking tools and appropriate chef's clothing. This does not include required textbooks. These costs vary with student needs and brand or quality of tools purchased.

*Please see your advisor for requirements specific to this program.

SUGGESTED COURSE SEQUENCING FOR THE ASSOCIATE OF APPLIED SCIENCE WITH A MAJOR IN CULINARY ARTS

This is a recommended sequence of course work. Certain courses may have prerequisites or are only offered 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

First Semester		Hours
CUAR 100	Culinary Program Fundamentals	3
CUAR 101	Food Safety and Sanitation	2
CUAR 115	Intro to ~~Culinary~~ Sustainab~~ility~~le Cuisine	3
~~CUAR 125~~	~~Introduction to Foods~~	~~4~~
~~CUAR 129~~	~~Center of the Plate~~	~~4~~
CUAR 145	Introduction to Baking	4
ENGL 111	English Composition	3
		~~16~~15

Second Semester		Hours
MATH107	Career Math	3
CUAR 125	Introduction to Foods	4
CUAR 129	Center of the Plate	4
~~CUAR 145~~	~~Introduction to Baking~~	~~4~~
~~CUAR 156~~	~~Nutrition for the Hospitality Professional~~	~~3~~
ENGL 112	English Composition or SPCH 101/102	3
KINA	Activity	1
KINE 100	Health and Wellness	1
		~~15~~16

Sophomore Year

Third Semester		Hours
~~CUAR 120~~	~~Wine and Spirits~~	~~2~~
CUAR 156	Nutrition for the Hospitality Professional	3
CUAR 179	Wine, Spirits and Beers	3
CUAR 262	Purchasing for the Hospitality Industry	3
~~CISB 101~~	~~Business Information Technology~~	~~3~~
History, Humanities, Social and Behavioral Sciences		3
CUAR	Electives	6
		~~17~~18

Fourth Semester		Hours
CUAR 190	Dining Room Management	4
CUAR 233	Advanced Line Prep and Cookery	4
~~CUAR 261~~	~~Cost Controls~~	~~3~~
CUAR 255	Supervision in the Hospitality Industry	3
CISB 101	Business Information Technology	
OR		
OFAD 118	Intro to PC Applications	3
History, Humanities, Social and Behavioral Sciences		3
		17

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POLICIES:
1. It is your responsibility to determine whether you have met the requirements for your degree. Please see the CMU 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 may be required to take a Major Field Achievement Test (exit exam).

COLORADO MESA
U N I V E R S I T Y

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: Hospitality, Human Services, Education**
     If new department, please enter name:

Proposal Type: **Program Modification**

PROGRAM: Degree type: **CERT**   Program/degree Name: **Baking and Pastry**
     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: **No**
    If change to the concentration/emphasis, enter: **No**
    Is there a revision to the program sheet? **Yes**

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: **Daniel Kirby**   Date: **11/30/2014**
Email: **dkirby@coloradomesa.edu**   Phone: **25532**

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Carolyn Ferreira-Lillo**   Date: **11/30/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **Sundermann Brigitte**   Date: **12/4/2014**

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.

About This Certificate . . .

This program will prepare students for employment in the field of baking and the art of pastries. The certificate program will develop the students' skills and understanding in the production of pastries, yeast products, quick breads, use of fruits and international desserts. Students completing the certificate program could find employment in the following areas: baker, baking assistant, journeyman baker, cake decorator, or pastry cook, and are prepared to continue for advanced study in the Associates of Applied Science in Baking and Pastry, and Bachelors in Hospitality Management.

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

All CMU certificate 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. Apply principles of safety and sanitation to workplace settings. (Applied Learning)
2. Apply mathematical concepts and practices to the field of baking and pastry as a basis for accurate ingredient measurements, high altitude adjustment, and formula yield conversion. (Quantitative Fluency)
3. Apply appropriate vocabulary used in the field of baking and pastries for equipment, tools, ingredients and menu items. (Specialized Knowledge/ Communication Fluency)
4. Identify, formulate and assess a variety of baked products. (Specialized Knowledge)

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 the 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:
- 2.00 cumulative GPA or higher in all CMU coursework and a "C" or better must be achieved in coursework toward major content area.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Program sheets are for advising purposes only. Because a program may have requirements specific to the degree, check with your advisor for additional guidelines, including prerequisites, grade point averages, grades, exit examinations, and other expectations. It is the student's responsibility to be aware of, and follow, all guidelines for the degree being pursued. Any exceptions or substitutions must be approved by the faculty advisor and/or Department Head. Courses related to teacher licensure must also be approved by the Teacher Education Dept.
- 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.

TECHNICAL CERTIFICATE: BAKING AND PASTRY

(30 semester hours) Need a "C" or higher in each course.

Course No	Title	Sem.hrs	Grade	Term
Core Classes				
CUAR 100	Culinary Fundamentals	3	_____	_____
CUAR 101	Food Safety & Sanitation	2	_____	_____
CUAR 145	Introduction to Baking	4	_____	_____
CUAR 150	Decorating & Presentation	3	_____	_____
CUAR 156	Nutrition for Hospitality	3	_____	_____

Course No	Title	Sem.hrs	Grade	Term
CUAR 151	Intermediate Bread Prep	3	_____	_____
CUAR 152	Individual Fancy Dessert Prod.	3	_____	_____
CUAR 236	Advanced Baking	3	_____	_____
Culinary Arts Electives		6	_____	_____
CUAR ____	_____ ___		_____	_____
CUAR____	_____ ___		_____	_____
CUAR____	_____ ___		_____	_____

Choose from the following electives

Course #	Course Name	Hrs
CUAR 115	~~Culinary~~ Intro to Sustabl~~eility~~ Cuisine	3
~~CUAR 120~~	~~Wine and Spirits~~	~~2~~
CUAR 125	Intro to Foods	4
~~CUAR 129~~	~~Center of the Plate~~	~~4~~
CUAR 153	Confectionaries	3
CUAR 160	Cake Decorating	5
CUAR ~~161~~ 163	Adv Wedding Cake~~s Decorating~~	3
CUAR 179	Wine, Spirits and Beers	3
CUAR 251	Adv Garde Manger	3
CUAR 255	Supervision in Hospitality	3
~~CUAR 261~~	~~Cost Controls~~	~~3~~
CUAR 262	Purchasing in Hospitality	3
CUAR 269	Dietary Baking	3

CUAR 271	Techniques of Competition – hot	3
CUAR 272	Techniques of Competition – cold	3
CUAR 281	Internship	1-6

SUGGESTED COURSE SEQUENCING FOR A CERTIFICATE IN BAKING AND PASTRY

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

FRESHMAN YEAR

Fall Semester	Hours
CUAR 100 Culinary Program Fundamentals	3
CUAR 101 Food Safety & Sanitation	2
CUAR 145 Introduction to Baking	4
CUAR 150 Decorating and Presentation	3
CUAR 156 Nutrition for Hospitality	3
	15

Spring Semester	Hours
CUAR 151 Intermediate Bread Preparation	3
CUAR 152 Individual Fancy Dessert Production	3
CUAR 236 Advanced Baking	3
CUAR Electives	6
	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 may be required to take a Major Field Achievement Test (exit exam).

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: Hospitality, Human Services, Education**
        If new department, please enter name:

Proposal Type: **Program Modification**

PROGRAM: Degree type: **CERT**   Program/degree Name: **Culinary Arts**
                                          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: **No**
        If change to the concentration/emphasis, enter: **No**
        Is there a revision to the program sheet? **Yes**

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: **Daniel Kirby**   Date: **11/10/2014**
Email: **dkirby@coloradomesa.edu**   Phone: **970-255-2632**

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Carolyn Ferreira-Lillo**   Date: **11/21/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **Sundermann Brigitte**   Date: **12/4/2014**

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.

2014-2015 2015-2016 PETITION/PROGRAM SHEET
Award: Technical Certificate
Specialization: Culinary Arts

About This Certificate. . .

Students enrolled in the Technical Certificate in Culinary Arts learn the fundamental skills and techniques of food and bakery production, safety, and sanitation. Additionally, students select from a list of elective classes that includes: International Cuisine, Advanced Garde Manger, Dining Room Management, Advanced Line Cooking, Supervision in the Hospitality Industry, Cost Controls, Purchasing, Nutrition, and Wine and Spirits. Upon completion of the program, students will be prepared for an entry-level position in the broad and expanding hospitality industry, as well as prepared to continue for advanced study in the Associate of Applied Science in Culinary Arts, or the Bachelor of Applied Science in Hospitality Management.

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

All CMU certificate 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. Use information on an assigned topic to address a course or discipline related question or a question of practice in a workplace setting. (Applied Learning)
2. Apply appropriate mathematical concepts to the field of culinary arts as a basis for menu planning, purchasing and recipe conversion. (Quantitative Fluency)
3. Evaluate strategies for production and sales of food products, identify, formulate, and assess a variety of food products. (Critical Thinking/ Specialized Knowledge)
4. Interact with customers in dining room to present and explain the menu, the ingredients, and the cooking and baking methods, using best marketing practices while meeting the need of the customer. (Applied Learning/ Communication Fluency)

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:
- 2.00 cumulative GPA or higher in all CMU coursework and a "C" or better must be achieved in each course which comprises the area of emphasis or specialization.
- 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.

TECHNICAL CERTIFICATE: CULINARY ARTS
(30 semester hours)

Course No	Title	Sem.hrs	Grade	Term/Trns

Core Classes

Course No	Title	Sem.hrs	Grade	Term/Trns
CUAR 100	Culinary Fundamentals	3		
CUAR 101	Food Safety and Sanitation	2		
CUAR 125	Introduction to Foods	4		
CUAR 129	Center of the Plate	4		
CUAR 145	Introduction to Baking	4		

Electives: Choose at least 13 semester hours from list below

	Title	Sem.hrs	Grade	Term/Trns
CUAR ____	_____	____	____	_____
CUAR ____	_____	____	____	_____

Course No	Title	Sem.hrs	Grade	Term/Trns
CUAR ____	_____	____	____	_____
CUAR ____	_____	____	____	_____
CUAR ____	_____	____	____	_____
CUAR ____	_____			
CUAR ____	_____			
CUAR ____	_____			
CUAR ____	_____			
CUAR ____	_____			
CUAR ____	_____			
CUAR ____	_____			
CUAR ____	_____			
CUAR ____	_____			

Electives: Choose 13 semester hours from the following

CUAR 120 Wine and Spirits (2)
CUAR 156 Nutrition for the Hospitality Professional (3)
CUAR 179 Wine, Spirits and Beers   3
CUAR 190 Dining Room Management (4)
CUAR 233 Advanced Line Prep and Cookery (4)
CUAR 245 International Cuisine (3)

CUAR 251 Advanced Garde Manger (3)
CUAR 255 Supervision in the Hospitality Industry (3)
CUAR 261 Cost Controls (3)
CUAR 262 Purchasing for the Hospitality Industry (3)
CUAR 271 Techniques of Competition – Hot Food (3)
CUAR 272 Techniques of Competition – Cold Food (3)
3CUAR 281 Internship (1-6)

Additional expenses – Students in Culinary Arts are required to purchase cooking tools and uniforms. This does not include required textbooks. These costs vary with student needs and brand or quality of tools purchased.

**SUGGESTED COURSE SEQUENCING FOR THE TECHNICAL CERTIFICATE
WITH A SPECIALIZATION IN CULINARY ARTS**

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

First Semester		Hours	Second Semester		Hours
CUAR 100	Culinary Program Fundamentals	3	CUAR 145	Introduction to Baking	4
CUAR 101	Food Safety and Sanitation	2	CUAR	Electives	10
CUAR 125	Introduction to Foods	4			14
CUAR 129	Center of the Plate	4			
CUAR Electives		3			
		16			

POLICIES:
1. It is your responsibility to determine whether you have met the requirements for your degree. Please see your Catalog for a complete list of graduation requirements.
2. You must go to the Registrar's Office and fill out the "Intent to Graduate" form **at the beginning of the semester prior to graduating.**
3. This program sheet must be submitted with your graduation planning sheet to your advisor during the **semester prior to graduating, no later than September 15 for Spring graduates, February 15 for Fall graduates.**
4. Your advisor will sign and forward the Program Sheet, Intent to Graduate Form, 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).

Date: December 19, 2014
To: Undergraduate Curriculum Committee
From: Denise McKenney, Department Head of Biological Sciences
Re: Summary of proposals submitted for the January 22, 2105 meeting

The submitted proposals to the Undergraduate Curriculum Committee for the meeting on January 22 are part of a package of changes necessitated by our desire to add two new concentrations to the Biological Sciences program. The proposed new concentrations will be in Cellular, Molecular, and Developmental Biology (CMDB), and in Ecology, Evolution, and Organismal Biology (EEOB). The first set of proposals paves the way for the CMDB and EEOB concentration proposals, which will be submitted for the following curriculum committee meeting on Feb. 26.

Summary of the proposals for the January 22 meeting:

1) Change prerequisites for BIOL 341/341L General Physiology to be more accurate, as well as accommodate the requirements in the proposed new concentrations.
2) Change prerequisites for BIOL 403 Evolution to be more accurate, as well as accommodate changes in the requirements in the proposed new concentrations.
3) Change the name and level for BIOL 416/416L Ethology, which necessitates deletion of the existing courses and the addition of BIOL 316/316L Animal Behavior. The change in title clarifies the nature of the courses to students, and the level is more appropriate for junior class standing.
4) Add a new majors course, BIOL 108/108L Diversity of Organisms, which is designed to support one of the proposed concentration additions. If approved, we will seek their inclusions in the Natural Sciences Essential Learning early in Fall 2015, as well as inclusion in the statewide transfer agreement for general education. The proposed new course expands the topics currently taught in one of our general education courses, BIOL 102/102L Plant and Animal Biodiversity, but will cover all the Domains of life. The ultimate goal would be to replace BIOL 102/102L with BIOL 108/108L. However, BIOL 102/102L cannot be deleted immediately. In addition to being popular general education choices in Natural Science with a lab, BIOL 102/102L are current recommended choices for general education in the Geosciences program. In addition, they are popular courses in the Early Scholars program. Therefore, we thought a step-wise approach would be in order to allow a smoother transition, with BIOL 108/108L added and approved for general education before deleting BIOL 102/102L.
5) Align the core in the current Biology concentration with the core in both proposed new concentrations, as well as reflect the course changes listed above, if approved.

COLORADO MESA UNIVERSITY

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 341/341L General Physiology & Lab (3) / (1) Old: BIOL 106 or BIOL 209 New: BIOL 105 or BIOL 209 BIOL 403 Evolution(3) Old: BIOL 106, BIOL 107, BIOL 208, BIOL 301, and Senior standing New: BIOL 301, with BIOL 208 strongly recommended
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: **Susan Longest**   Date: **12/19/14**
Email: slongest@coloradomesa.edu   Phone: 1554

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Susan Longest**   Date: **12/19/14**

APPROVED BY DEPARTMENT HEAD:
Name: **D. McKenney**   Date: **12/19/14**

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.

COLORADO MESA
U N I V E R S I T Y

DEPARTMENT WORKSHEET FOR A COURSE ADDITION
Colorado Mesa University Curriculum Committees

NOTE: Each course addition must be submitted on a separate form.

Department Name: **Biological Sciences**
        If new department, please enter name:

Course prefix: **BIOL**   Course number: **108**   Credit hours: **3**

Course name: **Diversity of Organisms**

Course abbreviated schedule name (24 characters maximum): **Diversity of Organisms**

Contact hours per week: Lecture **3**   Lab   Field   Studio   Other

Type of Instructional Activity (from Table III.2 of Curriculum Policies and Procedures Manual):
Lecture

Academic engagement minutes for a term: 2250   Student preparation minutes for a term: 4500

Earliest term course can be offered: **Spring**   Earliest academic year: **2015-16**

Intended semesters for offering this course: Fall ⊠   J-Term ☐   Spring ⊠   Summer ⊠

Is this to be a general education/essential learning course? **No**   If yes, which category?

If this is a general education course,essential learning course, see requirements in Section III.L. of the Curriculum Policies and Procedures Manual at http://coloradomesa.edu/facsenate/curriculumresources.html

Is this to be an experimental course? **No**   If yes, use the Intra-Departmental Curriculum Change Memo.

List all prerequisites for this course. If none, indicate by checking here: ⊠

Course	Credit Hours	Course	Credit Hours
1.		2.	
3.		4.	
5.		6.	
7.		8.	
9.		10.	

List all co-requisites for this course. If none, indicate by checking here: ☐

Course	Credit Hours	Course	Credit Hours
1. **BIOL 108L Diversity of Organisms Lab**	**1**	2.	
3.		4.	
5.		6.	
7.		8.	
9.		10.	

(Submit a course modification request, as required, for each course listed above.)

List all programs of study for which this course will be a <u>requirement</u> or a <u>listed choice</u>, including all degrees, majors, minors, certificates, concentrations, cognates, emphases, and options. If none, indicate by checking here: ☒

	Degree Type	Program
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

**(Submit a program modification request and a revised program sheet for each program listed above.
All prerequisites to this course <u>must </u>be included in each program of study listed above.)**

List all courses for which this course is to be a prerequisite or corequisite. If none, indicate by checking here: ☐

1. **BIOL 108L Diversity of Organisms Lab**	2.
3.	4.
5.	6.
7.	8.
9.	10.

(Submit a course modification request, as required, for each course listed above.)

DUPLICATION: Is there overlapping content with present courses offered on campus? **Yes**
    If yes, explain: **Signicant overlap (>60%) with BIOL 102/102L, which will be no longer be offered as a site-based course after 2015/16 if BIOL 108 is approved as an Essential Learning offering.**

FACULTY FTE: Will additional faculty FTE be required? **No**
    If yes, explain:

EQUIPMENT: Does the course require additional equipment? **No**
    If yes, explain:

LAB FACILITIES: Does the course require additional lab facilities? **No**
    If yes, explain:

Course description as it will appear in the printed catalog:
    BIOL 108 Diversity of Organisms (3) BIOL 108L Diversity of Organisms Lab (1)
Broadly integrated survey of biological diversity with an emphasis on evolutionary relationships, ecology, and functional anatomical features of major groups. Three lectures and one two-hour laboratory per week.

Justification for the proposed new course (enter below):

BIOL 102 is taught strictly as a general education option but does cover required content for students in the proposed Cellular, Molecular, and Developmental Biology concentration (to be proposed at the next meeting). BIOL 108 would replace BIOL 102 once it is approved for Essential Learning. The proposal for Essential Learning inclusion will be submitted in Fall of 2015.

Student learning outcomes:
Upon completion of this course, a student should be able to:

1. Demonstrate a knowledge of evolutionary relationships between the three Domains of Life.

2. Understand morphology, life cycles, and ecology of key lineages.

Topical course outline: (List of topics only. Do not attach syllabus.)

I. Phylogeny, Classification, and Origin of Life
- Evolution
- Phylogeny
- Classification
- Introduction to domains of life

II. Microorganisms: Includes Domain Bacteria, Domain Archaea and Unicellular Domain Eukarya
- Morphology and unique traits
- Modes of reproduction
- Nutrition/metabolism
- Ecological importance
- Medical importance

III. Multicellular Plants
- Morphology and unique traits of key lineages
- Modes/forms of reproduction of key lineages
- Life cycles of key lineages
- Nutrition/metabolism of key lineages
- Ecological interactions and importance within key lineages

IV. Multicellular Animals
- Morphology and unique traits of key lineages
- Modes/forms of reproduction of key lineages
- Life cycles of key lineages
- Nutrition/metabolism of key lineages
- Ecological interactions and importance within key lineages

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.

Physical & Environmental Sciences (Geosciences). Geosciences can consider this course when/if it becomes an Essential Learning option.

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

1. Submit the course catalog description to the Course Description Evaluator a week prior to the published proposal submission deadline.

2. 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: **Susan Longest**   Date: **12/19/2014**
Email: slongest@coloradomesa.edu   Phone: 1554

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Susan Longest**   Date: **12/19/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **D. McKenney**   Date: **12/19/14**

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.

COLORADO MESA
U N I V E R S I T Y

DEPARTMENT WORKSHEET FOR A COURSE ADDITION
Colorado Mesa University Curriculum Committees

NOTE: Each course addition must be submitted on a separate form.

Department Name: **Biological Sciences**
        If new department, please enter name:

Course prefix: **BIOL**   Course number: **108L**   Credit hours: **1**

Course name: **Diversity of Organisms Laboratory**

Course abbreviated schedule name (24 characters maximum): **Div of Organisms Lab**

Contact hours per week: Lecture   Lab **2**   Field   Studio   Other

Type of Instructional Activity (from Table III.2 of Curriculum Policies and Procedures Manual):
Laboratory: Academic/Clinical

Academic engagement minutes for a term: 1500   Student preparation minutes for a term: 750

Earliest term course can be offered: **Spring**   Earliest academic year: **2015-16**

Intended semesters for offering this course: Fall ☒   J-Term ☐   Spring ☒   Summer ☒

Is this to be a <u>general education/essential learning</u> course? **No**   If yes, which category?

If this is a general education course,essential learning course, see requirements in Section III.L. of the Curriculum Policies and Procedures Manual at http://coloradomesa.edu/facsenate/curriculumresources.html

Is this to be an experimental course? **No**   If yes, use the Intra-Departmental Curriculum Change Memo.

List all <u>prerequisites</u> for this course. If none, indicate by checking here: ☒

Course	Credit Hours	Course	Credit Hours
1.		2.	
3.		4.	
5.		6.	
7.		8.	
9.		10.	

List all <u>co-requisites</u> for this course. If none, indicate by checking here: ☐

Course	Credit Hours	Course	Credit Hours
1. **BIOL 108 Diversity of Organisms**	**3**	2.	
3.		4.	
5.		6.	
7.		8.	
9.		10.	

(Submit a course modification request, as required, for each course listed above.)

List all programs of study for which this course will be a <u>requirement</u> or a <u>listed choice</u>, including all degrees, majors, minors, certificates, concentrations, cognates, emphases, and options. If none, indicate by checking here: ☒

	Degree Type	Program
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

**(Submit a program modification request and a revised program sheet for each program listed above.
All prerequisites to this course <u>must</u> be included in each program of study listed above.)**

List all courses for which this course is to be a prerequisite or corequisite. If none, indicate by checking here: ☐

1. **BIOL 108 Diversity of Organisms**	2.
3.	4.
5.	6.
7.	8.
9.	10.

(Submit a course modification request, as required, for each course listed above.)

DUPLICATION: Is there overlapping content with present courses offered on campus? **Yes**
   If yes, explain: **Signicant overlap (>60%) with BIOL 102/102L, which will be no longer be offered as a site-based course after 2015/16 if BIOL 108 and lab are approved as an Essential Learning offering.**

FACULTY FTE: Will additional faculty FTE be required? **No**
   If yes, explain:

EQUIPMENT: Does the course require additional equipment? **No**
   If yes, explain:

LAB FACILITIES: Does the course require additional lab facilities? **No**
   If yes, explain:

Course description as it will appear in the printed catalog:
   BIOL 108 Diversity of Organisms (3) BIOL 108L Diversity of Organisms Lab (1)
Broadly integrated survey of biological diversity with an emphasis on evolutionary relationships, ecology, and functional anatomical features of major groups. Three lectures and one two-hour laboratory per week.

Justification for the proposed new course (enter below):

BIOL 102 is taught strictly as a general education option but does cover required content for students in the proposed Cellular, Molecular, and Developmental Biology concentration (to be proposed at the next meeting). BIOL 108 would replace BIOL 102 once it is approved for Essential Learning. The proposal for Essential Learning inclusion will be submitted in Fall of 2015.

Student learning outcomes:
Upon completion of this course, a student should be able to:

1. Demonstrate a knowledge of evolutionary relationships between the three Domains of Life.

2. Understand morphology, life cycles, and ecology of key lineages.

3. Gather, organize, and analyze scientific data and draw logical conclusions.

Topical course outline: (List of topics only. Do not attach syllabus.)

I. Lab Safety, Classification, and Taxonomy
- Evolution
- Phylogeny
- Classification
- Introduction to domains of life

II. Microorganisms: Includes Domain Bacteria, Domain Archaea and Unicellular Domain Eukarya
- Morphology and unique traits
- Modes of reproduction
- Soil analysis

III. Multicellular Plants
- Morphology and unique traits of key lineages
- Modes/forms of reproduction of key lineages
- Life cycles of key lineages
- Ecological interactions including field trips

IV. Multicellular Animals
- Morphology and unique traits of key lineages
- Modes/forms of reproduction of key lineages
- Life cycles of key lineages
- Ecological interactions, including field trips

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.

Physical & Environmental Sciences (Geosciences). Geosciences can consider this course when/if it becomes an Essential Learning option.

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

1. Submit the course catalog description to the Course Description Evaluator a week prior to the published proposal submission deadline.

2. 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: **Susan Longest**   Date: **12/19/2014**
Email: slongest@coloradomesa.edu   Phone: 1554

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Susan Longest**   Date: **12/19/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **D. McKenney**   Date: **12/19/14**

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.

Library Curriculum Assessment
Tomlinson Library
Colorado Mesa University

The following form is a snapshot of the library's collection in support of new curriculum areas and/or course additions (if appropriate).

Date of assessment: 1/7/2015

Collection under review: BIOL 108 and 108L Diversity of Organisms

Program level (circle):   Certificate   Associates   **Bachelors**   Masters

Delivery mode: Lecture and Lab

Library Liaison: Jamie Walker

1. Current Collection Review
    This assessment was prepared drawing selected subject matter from the course addition worksheet provided by the department. Subject headings used below are based upon Library of Congress Subject Headings.

    a. Reference Sources: A subject search of the online catalog with the term "Biology" retrieved 14 titles in the Reference collection. Most of these were published in the 1970s to 1990s. A search for the more specific subject "Biological Diversity" retrieved one reference title. The library also subscribes to online reference databases that provide access to several current encyclopedias and dictionaries in the biological sciences.

    b. Monographic Sources: The Tomlinson Library Online Catalog (CMU) was searched for locally available books including e-books. Searches were done for all materials and then limited to those published from 2005 forward. The Prospector catalog was searched to determine what might be readily available from other libraries without regard to date.

Subject Heading	CMU All	CMU 2005-	Prospector
Biological Diversity	5	1	120
Phylogeny	75	29	580
Microorganisms	66	32	2095
Plants	864	266	25385
Animal	1726	704	25564
Evolution	1223	632	40312
Reproduction	298	146	1431570
Ecology	1109	451	53935
Nutrition	1906	777	39211

Metabolism	307	202	11979

c. Electronic Resources: E-Books were searched within the Tomlinson Library Online Catalog. Most of CMU's e-book holdings have been published since 2001. CMU's e-book holdings are expected to continue to expand over time

Subject Heading	E-Books LSCH
Biological Diversity	3
Phylogeny	12
Microorganisms	21
Plants	145
Animal	292
Evolution	431
Reproduction	25
Ecology	197
Nutrition	206
Metabolism	157

d. Periodicals (online and paper): Biological Abstracts was searched for online biology specific publications (BA). Biological Abstracts has indexing from 1969 to current and references more then 4300 journals. Also searched was EBSCO Discovery Service (EDS) which searches across many databases to which we subscribe including Biological Abstracts. Many of the articles contained in EDS are available as online full-text. The library also subscribes to a number of print biology journals, the articles of which may be discovered though a database such as EDS, or by browsing individual issues. In summary, there is a large quantity of material available in periodical resources with a significant amount available in full-text. 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 12 hours. Most requests are filled through this program. Beyond that, OCLC Resource Sharing gives access to 72,000 library collections world-wide. Both of these programs also provide book chapters as scanned documents.

Subject Heading	BA	EDS
Biological Diversity	1136	44489
Phylogeny	12091	37757
Microorganisms	698410	711420
Plants	762703	780953
Animals	1026637	1185698
Evolution	76624	31956
Reproduction	177025	192712
Ecology	397065	365438
Nutrition	148285	237399
Metabolism	307358	262160

2. Recommendations for additions to the collection: It is anticipated that current library resources will be adequate for this course. Existing funds should be sufficient to purchase new materials as required. It is important to update the collection on a regular and ongoing basis. Assistance from faculty in the selection of library materials is essential and appreciated.

3. Analysis of library's collection:

   Existing library resources should be adequate for this course. A weakness is that we have few books for the subject "Biological Diversity". Existing funds could be used to purchase additional materials that might be needed to support this class.

   ☒ This program requires no new library resources.
   ☐ Extra funding is required to adequately meet the informational needs of the program. Estimated resources needed $ _____
   ☐ No Library Assessment needed. No new content associated with this analysis.

Library Director: _____Sylvia L. Rael_____ **Date:** 12 January 2015___

DEPARTMENT WORKSHEET FOR A COURSE ADDITION
Colorado Mesa University Curriculum Committees

NOTE: Each course addition must be submitted on a separate form.

Department Name: **Biological Sciences**
        If new department, please enter name:

Course prefix: **BIOL**   Course number: **316**   Credit hours: **3**

Course name: **Animal Behavior**

Course abbreviated schedule name (24 characters maximum): **Animal Behavior**

Contact hours per week: Lecture **3**   Lab   Field   Studio   Other

Type of Instructional Activity (from Table III.2 of Curriculum Policies and Procedures Manual):
Lecture

Academic engagement minutes for a term: 2250   Student preparation minutes for a term: 4500

Earliest term course can be offered: **Fall**   Earliest academic year: **2015-16**

Intended semesters for offering this course: Fall ☐   J-Term ☐   Spring ☒   Summer ☐

Is this to be a <u>general education/essential learning</u> course? **No**   If yes, which category?

If this is a general education course,essential learning course, see requirements in Section III.L. of the Curriculum Policies and Procedures Manual at http://coloradomesa.edu/facsenate/curriculumresources.html

Is this to be an experimental course? **No**   If yes, use the Intra-Departmental Curriculum Change Memo.

List all <u>prerequisites</u> for this course. If none, indicate by checking here: ☐

Course	Credit Hours	Course	Credit Hours
1. **BIOL 106 OR**	**3**	2.	
3. **BIOL 209**	**3**	4.	
5.		6.	
7.		8.	
9.		10.	

List all <u>co-requisites</u> for this course. If none, indicate by checking here: ☐

Course	Credit Hours	Course	Credit Hours
1. **BIOL 316L Animal Behavior Lab**	**1**	2.	
3.		4.	
5.		6.	
7.		8.	
9.		10.	

(Submit a course modification request, as required, for each course listed above.)

List all programs of study for which this course will be a <u>requirement</u> or a <u>listed choice</u>, including all degrees, majors, minors, certificates, concentrations, cognates, emphases, and options. If none, indicate by checking here: ☐

	Degree Type	Program
1.	**BS**	**Biological Sciences - Biology**
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

**(Submit a program modification request and a revised program sheet for each program listed above.
All prerequisites to this course <u>must</u> be included in each program of study listed above.)**

List all courses for which this course is to be a prerequisite or corequisite. If none, indicate by checking here: ☐

1. **BIOL 316L Animal Behavior Lab**	2.
3.	4.
5.	6.
7.	8.
9.	10.

(Submit a course modification request, as required, for each course listed above.)

DUPLICATION: Is there overlapping content with present courses offered on campus? **No**
   If yes, explain:

FACULTY FTE: Will additional faculty FTE be required? **No**
   If yes, explain:

EQUIPMENT: Does the course require additional equipment? **No**
   If yes, explain:

LAB FACILITIES: Does the course require additional lab facilities? **No**
   If yes, explain:

Course description as it will appear in the printed catalog:
   BIOL 316 Animal Behavior (3)   BIOL 316L Animal Behavior Lab (1) Mechanisms and evolution of animal behavior. Three lectures and one two-hour laboratory per week and one Saturday field trip. Prerequisites: BIOL 106 or 209.

Justification for the proposed new course (enter below):

The course is being changed from a senior level to a junior level offering. (See associated Course Deletion.) The name is being changed to Animal Behavior from Ethology since the former term is more readily recognizable by potential students. The level change will encourage students to take this course in their junior year, which is more appropriate.

Student learning outcomes:
Upon completion of this course, a student should be able to:

1. Describe the breadth of biological diversity and to identify and describe the processes and patterns of ecology and evolution.

2. Explain relationships between inheritance and the levels of biological organization.

3. Identify adaptive behaviors of animals.

4. Understand how and why evolutionary mechanisms can result in behavior.

5. Identify different types of mating systems, predator-prey interactions, home selections and social behaviors.

Topical course outline: (List of topics only. Do not attach syllabus.)

History and Methods
Behavioral Genetics
Behavioral Ecology
Selection Methods
Nervous Systems
Communication Systems—nervous and endocrine
Hormones and Behavior
Sexual Reproduction
Innate vs. Learned Behaviors
Communication
Adaptive Behavior
Migration, Aggression, Habitat Selection, and Foraging Behavior
Mating Systems, Parental Investment (*r* vs. *k*)
Social Systems

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.

Biology only.

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

1. Submit the course catalog description to the Course Description Evaluator a week prior to the published proposal submission deadline.

2. 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: **D. McKenney**   Date: **12/19/2014**
Email: dmckenne   Phone: 1015

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Susan Longest**   Date: **12/19/14**

APPROVED BY DEPARTMENT HEAD:
Name: **D. McKenney**   Date: **12/19/14**

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.

COLORADO MESA
U N I V E R S I T Y

DEPARTMENT WORKSHEET FOR A COURSE ADDITION
Colorado Mesa University Curriculum Committees

NOTE: Each course addition must be submitted on a separate form.

Department Name: **Biological Sciences**
        If new department, please enter name:

Course prefix: **BIOL**   Course number: **316L**   Credit hours: **1**

Course name: **Animal Behavior Lab**

Course abbreviated schedule name (24 characters maximum): **Animal Behavior Lab**

Contact hours per week: Lecture   Lab **2**   Field   Studio   Other

Type of Instructional Activity (from Table III.2 of Curriculum Policies and Procedures Manual):
Laboratory: Academic/Clinical

Academic engagement minutes for a term: 1500   Student preparation minutes for a term: 750

Earliest term course can be offered: **Fall**   Earliest academic year: **2015-16**

Intended semesters for offering this course: Fall ☐   J-Term ☐   Spring ☒   Summer ☐

Is this to be a general education/essential learning course? **No**   If yes, which category?

If this is a general education course,essential learning course, see requirements in Section III.L. of the Curriculum Policies and Procedures Manual at http://coloradomesa.edu/facsenate/curriculumresources.html

Is this to be an experimental course? **No**   If yes, use the Intra-Departmental Curriculum Change Memo.

List all prerequisites for this course. If none, indicate by checking here: ☐

Course	Credit Hours	Course	Credit Hours
1. **BIOL 106 OR**	**3**	2.	
3. **BIOL 209**	**3**	4.	
5.		6.	
7.		8.	
9.		10.	

List all co-requisites for this course. If none, indicate by checking here: ☐

Course	Credit Hours	Course	Credit Hours
1. **BIOL 316 Animal Behavior**	**3**	2.	
3.		4.	
5.		6.	
7.		8.	
9.		10.	

(Submit a course modification request, as required, for each course listed above.)

List all programs of study for which this course will be a <u>requirement</u> or a <u>listed choice</u>, including all degrees, majors, minors, certificates, concentrations, cognates, emphases, and options. If none, indicate by checking here: ☐

	Degree Type	Program
1.	**BS**	**Biological Sciences - Biology**
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

(Submit a program modification request and a revised program sheet for each program listed above.
All prerequisites to this course <u>must</u> be included in each program of study listed above.)

List all courses for which this course is to be a prerequisite or corequisite. If none, indicate by checking here: ☐

1. **BIOL 316 Animal Behavior**	2.
3.	4.
5.	6.
7.	8.
9.	10.

(Submit a course modification request, as required, for each course listed above.)

DUPLICATION: Is there overlapping content with present courses offered on campus? **No**
     If yes, explain:

FACULTY FTE: Will additional faculty FTE be required? **No**
     If yes, explain:

EQUIPMENT: Does the course require additional equipment? **No**
     If yes, explain:

LAB FACILITIES: Does the course require additional lab facilities? **No**
     If yes, explain:

Course description as it will appear in the printed catalog:
     BIOL 316 Animal Behavior (3)   BIOL 316L Animal Behavior Lab (1) Mechanisms and evolution of animal behavior.
Three lectures and one two-hour laboratory per week and one Saturday field trip. Prerequisites: BIOL 106 or 209.

Justification for the proposed new course (enter below):

The course is being changed from a senior level to a junior level offering. (See associated Course Deletion.) The name is being changed to Animal Behavior from Ethology since the former term is more readily recognizable by potential students. The level change will encourage students to take this course in their junior year, which is more appropriate.

Student learning outcomes:
Upon completion of this course, a student should be able to:

1. Describe the breadth of biological diversity and identify and describe the processes and patterns of ecology and evolution.

2. Explain relationships between inheritance and the levels of biological organization.

3. Identify adaptive behaviors of animals.

4. Understand how and why evolutionary mechanisms can result in behavior.

5. Identify different types of mating systems, predator-prey interactions, home selections and social behaviors.

Topical course outline: (List of topics only. Do not attach syllabus.)

History and methods
Behavioral genetics
Behavioral ecology
Selection methods
Nervous systems
Communication systems--nervous and endocrine
Hormones and behavior
Sexual reproduction
Innate vs. learned behavior
Communication
Adaptive behavior
Migration, aggression, habitat selection, and foraging behavior
Mating systems, parental investment (r vs. k)
Social systems

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.

Biology only.

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

1. Submit the course catalog description to the Course Description Evaluator a week prior to the published proposal submission deadline.

2. 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: **D. McKenney**   Date: **12/19/2014**
Email: dmckenne   Phone: 1015

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Susan Longest**   Date: **12/19/2014**

APPROVED BY DEPARTMENT HEAD:
Name: **D. McKenney**   Date: **12/19/14**

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.

COLORADO MESA UNIVERSITY

Department Worksheet for a Course Deletion/De-activation/Re-activation

NOTE: Each course deletion must be submitted on a separate form.

Department Name: **Biological Sciences**   Type of course change: Deletion

Course prefix: **BIOL**   Course number: **416**   Credit hours: **3**

Course name: **Ethology**

Term of change (last term be offered before deletion/de-activation or first term of re-activation): **Spring**
Academic year of change: **2014-15**

Is this a general education/essential learning course? **No**   If yes, which category?

List all programs of study for which this course is a <u>requirement</u> or a <u>listed choice</u>, including all degrees, majors, minors, certificates, concentrations, cognates, emphases, and options. If none, indicate by checking here: ☐

	Degree Type	Program
1.	**BS**	**Biological Sciences - Biology (listed choice)**
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

**(Submit a program modification request and a revised program sheet for each program listed above.
All prerequisites to this course <u>must</u> be included in each program of study listed above.)**

List all other courses for which this course is a <u>prerequisite</u>. If none, indicate by checking here: ☒

1.	2.
3.	4.
5.	6.
7.	8.
9.	10.

List all other courses for which this course is a <u>co-requisite.</u> If none, indicate by checking here: ☐

1. **BIOL 416L Ethology Lab**	2.
3.	4.
5.	6.
7.	8.
9.	10.

(Submit a course modification request, as required, for each course listed above.)

Justification for the proposed course deletion, deactivation, or reactivation:

Course and lab are being deleted in order to add them at a junior level and with a more easily recognized name.

PROPOSED AND PREPARED BY:
Name: **Susan Longest**   Date: **12/19/2014**
Email: slongest@coloradomesa.edu   Phone: 1554

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Susan Longest**   Date: **12/19/14**

APPROVED BY DEPARTMENT HEAD:
Name: **D. McKenney**   Date: **12/19/14**

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.

Library Curriculum Assessment
Tomlinson Library
Colorado Mesa University

The following form is a snapshot of the library's collection in support of new curriculum areas and/or course additions (if appropriate).

Date of assessment: 1/7/2015

Collection under review: BIOL 316 and 316L Animal Behavior (with Lab)

Program level (circle):   Certificate   Associates   **Bachelors**   Masters

Delivery mode: Lecture and Lab

Library Liaison: Jamie Walker

1. Current Collection Review
   This assessment was prepared drawing selected subject matter from the course addition worksheet provided by the department. Subject headings used below are based upon Library of Congress Subject Headings. Results in *italics* were searched as keywords rather than as subject headings.

   a. Reference Sources: A subject search of the online catalog with the term "Biology" retrieved 14 titles in the Reference collection. Most of these were published in the 1970s to 1990s. A search for the more specific subject "Animal Behavior" retrieved two reference titles. The library also subscribes to online reference databases that provide access to several current encyclopedias and dictionaries in the biological sciences.

   b. Monographic Sources: The Tomlinson Library Online Catalog (CMU) was searched for locally available books including e-books. Searches were done for all materials and then limited to those published from 2005 forward. The Prospector catalog was searched to determine what might be readily available from other libraries without regard to date.

Subject Heading	CMU All	CMU 2005-	Prospector
Animal Behavior	174	67	3914
Behavior Genetics	28	10	1092
Behavioral Ecology	*41*	*23*	*465*
Reproduction	298	146	1431570
Social Systems	39	24	1503

c. Electronic Resources: E-Books were searched within the Tomlinson Library Online Catalog. Most of CMU's e-book holdings have been published since 2001. CMU's e-book holdings are expected to continue to expand over time

Subject Heading	E-Books LSCH
Animal Behavior	26
Behavior Genetics	6
Behavioral Ecology	*15*
Reproduction	25
Social Systems	24

d. Periodicals (online and paper): Biological Abstracts was searched for online biology specific publications (BA). Biological Abstracts has indexing from 1969 to current and references more then 4300 journals. Also searched was EBSCO Discovery Service (EDS) which searches across many databases to which we subscribe including Biological Abstracts. Many of the articles contained in EDS are available as online full-text. The library also subscribes to a number of print biology journals, the articles of which may be discovered though a database such as EDS, or by browsing individual issues. In summary, there is a large quantity of material available in periodical resources with a significant amount available in full-text. 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 12 hours. Most requests are filled through this program. Beyond that, OCLC Resource Sharing gives access to 72,000 library collections world-wide. Both of these programs also provide book chapters as scanned documents.

Subject Heading	BA	EDS
Animal Behavior	32209	33355
Behavior Genetics	23	2954
Behavioral Ecology	507	*10707*
Reproduction	177025	192712
Social Systems	164	14230

2. Recommendations for additions to the collection: It is anticipated that current library resources will be adequate for this course. Existing funds should be sufficient to purchase new materials as required. It is important to update the collection on a regular and ongoing basis. Assistance from faculty in the selection of library materials is essential and appreciated.

3. Analysis of library's collection:
This course is renumbering and renaming of a previously existing course and so should not require significant additional materials. A cursory search of pertinent

subject headings supports this hypothesis. Existing library resources should be adequate for this course.

☒ This program requires no new library resources.
☐ Extra funding is required to adequately meet the informational needs of the program. Estimated resources needed $ _____
☐ No Library Assessment needed. No new content associated with this analysis.

Library Director: _____Sylvia L. Rael_____ **Date:**___12 January 2015___

Department Worksheet for a Course Deletion/De-activation/Re-activation

NOTE: Each course deletion must be submitted on a separate form.

Department Name: **Biological Sciences**   Type of course change: Deletion

Course prefix: **BIOL**   Course number: **416L**   Credit hours: **1**

Course name: **Ethology Lab**

Term of change (last term be offered before deletion/de-activation or first term of re-activation): **Spring**
Academic year of change: **2014-15**

Is this a general education/essential learning course? **No**   If yes, which category?

List all programs of study for which this course is a <u>requirement</u> or a <u>listed choice</u>, including all degrees, majors, minors, certificates, concentrations, cognates, emphases, and options. If none, indicate by checking here: ☐

	Degree Type	Program
1.	**BS**	**Biological Sciences - Biology (listed choice)**
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

**(Submit a program modification request and a revised program sheet for each program listed above.
All prerequisites to this course <u>must</u> be included in each program of study listed above.)**

List all other courses for which this course is a <u>prerequisite</u>. If none, indicate by checking here: ☒

1.	2.
3.	4.
5.	6.
7.	8.
9.	10.

List all other courses for which this course is a <u>co-requisite.</u> If none, indicate by checking here: ☐

1. **BIOL 416 Ethology**	2.
3.	4.
5.	6.
7.	8.
9.	10.

(Submit a course modification request, as required, for each course listed above.)

Justification for the proposed course deletion, deactivation, or reactivation:

Course and lab are being deleted in order to add them at a junior level and with a more easily recognized name.

PROPOSED AND PREPARED BY:
Name: **Susan Longest**   Date: **12/19/2014**
Email: slongest@coloradomesa.edu   Phone: 1554

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Susan Longest**   Date: **12/19/14**

APPROVED BY DEPARTMENT HEAD:
Name: **D. McKenney**   Date: **12/19/14**

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.

COLORADO MESA UNIVERSITY

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.)
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: **D. McKenney**   Date: **2/23/2014**
Email: dmckenne   Phone: 1015

REVIEWED BY DEPARTMENT'S CURRICULUM COMMITTEE REPRESENTATIVE:
Name: **Susan Longest**   Date: **12/19/14**

APPROVED BY DEPARTMENT HEAD:
Name: **D. McKenney**   Date: **2/23/14**

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.

Degree: Bachelor of Science
Major: Biological Sciences
Concentration: Biology

About This Major . . .

The Bachelor of Science degree with a Biological Science major provides a broad background in the biological sciences. Students choose biology courses from four areas: cell, developmental, and molecular biology; anatomical and physiological biology; organismal biology; and ecology, evolution, and systematics. Students wishing to obtain teacher certification complete a concentration in Teacher Licensure. The Biology Concentration also offers field courses on tropical ecosystems in Ecuador and on marine invertebrate communities in Oregon. The Department of Biology operates the only electron microscope facility in the area. Graduates of our program pursue careers in the medical field, plant pathology, wildlife biology, cell biology or biotechnology, among just a few of the career options available with a Biology degree from Colorado Mesa University.

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 a breadth of knowledge in the life sciences with an accompanying depth of knowledge particularly in the key areas of cell and molecular biology, organismal diversity, ecology, evolution and genetics. (Specialized Knowledge)
2. Utilize the scientific approach to address novel questions and problems through the development of hypotheses, design of experiments, collection of data, analysis of data, and interpretation of results. (Quantitative Fluency/ Applied Learning)
3. Identify, examine, evaluate and discuss the scientific literature. (Critical Thinking)
4. Articulate biological principles and ideas effectively, both in written and oral form. (Communication Fluency)

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).
- 2.0 cumulative GPA or higher in all CMU coursework
- A 2.5 GPA is required in the major courses. A "C" or higher is required in all major 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 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 113 **or higher** (3 semester hours, must receive a grade of "C" or better, must be completed by the time the student has 60 semester hours.)
MATH 113   College Algebra   4*   _____ _____
*3 credits apply to the General Ed requirements and 1 credit applies to elective credit

Humanities (3 semester hours)
_____ ____ _____ ____ ____ _____

Social and Behavioral Sciences (6 semester hours)
_____ ____ _____ ____ ____ _____
_____ ____ _____ ____ ____ _____

Natural Sciences (7 semester hours, one course must include a lab)
_____ ____ _____ ____ ____ _____
_____ ____ _____ ____ ____ _____
_____ ___L _____ ____ ____ _____

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 (17 semester hours) Must receive a grade of "C" or better and should be completed by the end of the sophomore year.
BIOL 105   Attributes of Living Systems   3   _____ _____
BIOL 105L   Attributes of Living Systems Lab   1   _____ _____
CHEM 131*   General Chemistry   4   _____ _____
CHEM 131L*   General Chemistry Lab   1   _____ _____
CHEM 132*   General Chemistry   4   _____ _____
CHEM 132L*   General Chemistry Lab   1   _____ _____

STAT 200   Probability and Statistics   3   _____ _____
   OR
*MATH 146 Calculus for Biological Sciences 3   _____ _____
*If MATH 146 is taken, 2 credits apply to elective credit

BIOLOGICAL SCIENCES MAJOR REQUIREMENTS
(48 semester hours) A 2.5 GPA is required in the major courses. A "C" or better is required in all major courses.

Required Core Courses (~~18~~ 10 semester hours)
~~BIOL 106   Principles of Animal Biology   3   _____ _____~~
~~BIOL 106L   Principles of Animal Biology Lab   1   _____ _____~~
~~BIOL 107   Principles of Plant Biology   3   _____ _____~~
~~BIOL 107L   Principles of Plant Biology Lab   1   _____ _____~~
BIOL 208   Ecology and Evolution   3   _____ _____
BIOL 208L   Ecology and Evolution Lab   1   _____ _____
BIOL 301   Principles of Genetics   3   _____ _____
BIOL 301L   Principles of Genetics Lab   1   _____ _____
BIOL 483   Senior Thesis   2   _____ _____

Required Related Study Area (~~10~~ 18 semester hours) Should be completed by the end of the sophomore year.
BIOL 106   Principles of Animal Biology 3
_____ _____

BIOL 106L   Principles of Animal Biology Lab   1   _____ _____

BIOL 107   Principles of Plant Biology   3
_____ _____

BIOL 107L   Principles of Plant Biology Lab   1
_____ _____
PHYS 111*   General Physics   4   _____ _____
PHYS 111L*   General Physics Lab   1   _____ _____
PHYS 112*   General Physics   4   _____ _____
PHYS 112L*   General Physics Lab   1   _____ _____
* A higher level subject may be taken in the same category with advisor approval.

Posted June 2014

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Course No Title	Sem.hrs Grade Term/Trns	Course No Title	Sem.hrs Grade Term/Trns

Additional Biology Courses (20 semester hours) At least 50% must be at the 300 level or above. Courses must be selected from three of the following four areas: (1) Cell, Developmental, and Molecular; (2) Organismal; (3) Anatomical and Physiological; (4) Ecology, Evolution, and Systematics. At least ONE of the following must be included: BIOL 302, BIOL 341/341L, OR BIOL 421/421L.

Category 1: Cellular, Developmental and Molecular
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____

Category 2: Organismal
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____

Category 3: Anatomical and Physiological
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____

Category 4: Ecology, Evolution and Systematics
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____

ELECTIVES (18 semester hours) (All college level courses appearing on your final transcript **not listed above** that will bring your total semester hours to 120 hours, including 40 upper-division credit hours.) Up to 24 upper-division hours may be needed.
*MATH 113   College Algebra   1   _____ _____
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____
_____ ____ _____ ____ _____ _____

Additional Biology Courses (20 semester hours minimum) At least 50% must be at the 300 level above. Courses must be selected from three of the following four areas:

Category 1: Cellular, Molecular, and Developmental and Molecular
†BIOL 302 Cellular Biology (3)
BIOL 310/310L Developmental Biology and Lab (3) / (2)
BIOL 343 Immunology (3)
BIOL 344/344L Forensic Molecular Biology and Lab (3) / (1)
BIOL 371L Lab Investigations in Cellular and Molecular Biology (3)
BIOL 425 Molecular Genetics (3)
BIOL 442 Pharmacology (3)

CHEM 315/315L Biochemistry I and Lab (3) / (1)

Category 2: Organismal
BIOL 250/250L Intro to Microbiology and Lab (3) / (2)
BIOL 316/316L Animal Behavior and Lab (3) / (1)
BIOL 322/322L Plant Identification and Lab (2) / (2)
BIOL 331/331L Insect Biology and Lab (3) / (2)
BIOL 333 Marine Biology (3)
BIOL 335/335L Invertebrate Zoology and Lab (3) / (1)
BIOL 336 Fish Biology (3)
BIOL 350/350L Microbiology and Lab (3) / (1)
BIOL 411/411L Mammalogy and Lab (3) / (1)
BIOL 412/412L Ornithology and Lab (3) / (1)
BIOL 413/413L Herpetology and Lab (3) / (1)
BIOL 416/416L Ethology and Lab (3) / (1)
BIOL 431/431L Animal Parasitology and Lab (3) / (1)
BIOL 433 Marine Invertebrate Communities (3)
BIOL 450/450L Mycology and Lab (3) / (2)

Category 3: Anatomical and Physiological
BIOL 209/209L Human Anatomy & Physiology I and Lab (3) / (1)
BIOL 210/210L Human Anatomy & Physiology II and Lab (3) / (1)
BIOL 241 Pathophysiology (4)
†BIOL 341/341L General Physiology and Lab (3) / (1)
BIOL 342/342L Histology and Lab (2) / (2)
BIOL 409/409L Gross and Developmental Human Anatomy (2) / (2)
BIOL 410/410L Human Osteology and Lab (3) / (1)
†BIOL 421/421L Plant Physiology and Lab (3) / (1)
BIOL 423/423L Plant Anatomy and Lab (3) / (2)
BIOL 426/426L Intro to Electron Microscopy and Lab (2) / (2)
BIOL 441 Endocrinology (3)

Category 4: Ecology, Evolution, and Systematics
BIOL 211/211L Ecosystem Biology and Lab (4) / (1)
BIOL 315 Epidemiology (3)
BIOL 320 Plant Systematics (3)
BIOL 321/321L Taxonomy of Grasses and Lab (2) / (2)
BIOL 403 Evolution (3)
BIOL 405/405L Adv. Ecological Methods and Lab (3) / (2)
BIOL 406 Plant-Animal Interactions (3)
BIOL 407 Tropical Field Biology (5)
BIOL 408 Desert Ecology (3)
BIOL 414/414L Aquatic Biology and Lab (3) / (1)
BIOL 415 Tropical Ecosystems (2)
BIOL 418/418L Wildlife Management and Lab (3) / (2)

† At least one of these lecture/lab courses must be included.

NOTE: Topics courses (BIOL 196/296/396/496) may not be used as Additional Biology Courses but must be used for elective credit.

SUGGESTED COURSE SEQUENCING FOR A MAJOR IN BIOLOGICAL SCIENCES – BIOLOGY

This is a recommended sequence of course work. Certain courses may have prerequisites or are only offered 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
BIOL 105	Attributes of Living Systems	3
BIOL 105L	Attributes of Living Systems Lab	1
CHEM 131	General Chemistry	4
CHEM 131L	General Chemistry Lab	1
MATH 113*	College Algebra	4
KINE 100	Health and Wellness	1
KINA	Activity	1
		15

Spring Semester		Hours
BIOL 106	Principles of Animal Biology	3
BIOL 106L	Principles of Animal Biology Lab	1
CHEM 132	General Chemistry	4
CHEM 132L	General Chemistry Lab	1
MATH 146*	Calculus for Biological Sciences (5) **or**	
STAT 200	Probability and Statistics (3)	3-5
General Education Fine Arts		3
		15-17

*Professional schools (medical, veterinary, dental) may require one or two semesters of calculus. Math 151 and 152 will fulfill the MATH requirement.

SOPHOMORE YEAR

Fall Semester		Hours
BIOL 107	Principles of Plant Biology	3
BIOL 107L	Principles of Plant Biology Lab	1
PHYS 111	General Physics (or higher)	4
PHYS 111L	General Physics Lab (or higher)	1
ENGL 111	English Composition	3
General Education Social/Behavioral Science		3
		15

Spring Semester		Hours
BIOL 208	Ecology and Evolution	3
BIOL 208L	Ecology and Evolution Lab	1
PHYS 112	General Physics (or higher)	4
PHYS 112L	General Physics Lab (or higher)	1
ENGL 112	English Composition	3
General Education History		3
		15

JUNIOR YEAR

Fall Semester		Hours
BIOL XXX (selected from list)		7
BIOL 301	Principles of Genetics	3
BIOL 301L	Principles of Genetics	1
Electives*		3
KINA	Activity	1
		15

Spring Semester		Hours
BIOL XXX (selected from list)		7
General Education Humanities		3
General Education Social/Behavioral Science		3
Electives*		3
		16

SENIOR YEAR

Fall Semester		Hours
BIOL XXX (selected from list)		6
General Education Natural Science		3
General Education Applied Studies		3
Electives*#		3
		15

Spring Semester		Hours
BIOL 483	Senior Thesis	2
General Education Natural Science with Lab		4
Electives*#		6-8
		12-14

* It is strongly recommended that all electives be upper division.

Professional schools (medical, veterinary, dental) may require one or two semesters of organic chemistry, which may be taken to fulfill part of the electives.

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 you graduate, you will be required to take a Major Field Achievement Test (exit exam).