Curriculum Committee Meeting Agenda

Voting Committee Members
Chair – Kristen Booth (Pre-College)
Vice Chair – Mimi Pentz (Nurs/Hlth Occ)

P.K. Hoffman (Arts & Hum)	Zip Krummel (Social Sci)	Ashley Michels (CTE)
Katy Jablonski (Wr/FL/Eng)	Emilie Miller (Science)	Abel Wolman (MTH)
Linnea Jaeger (ESOL)	Stephen Shwiff (Inst Dean)	

Non-Voting Committee Members
Susan Lewis (Curriculum)
Monica Pope (Student Services)

Support Staff
Gail Gilliland (Curriculum)

Guests
Pam Morse, Annette Byers, Mary Kramer, Courtney Cunningham

February 13, 2020 3:30 pm – 5:00 pm
The Dalles Campus, room 2.106 (Instructional Services conference room)
Hood River Indian Creek Campus, room 1.209 (conference room)
Zoom log-in: https://cgcc.zoom.us/j/872243412 phone in: 1-669-900-6833

Business:

1. none

Submissions [1]

1. Pam Morse & Annette Byers (3:35 – 4:15 pm)
    - MTH 211 Foundations of Elementary Mathematics I (New Course)
        i. MTH 211 Gen Ed Request
    - MTH 212 Foundations of Elementary Mathematics II (New Course)
        i. MTH 212 Gen Ed Request
    - MTH 213 Foundations of Elementary Mathematics III (New Course)
        i. MTH 213 Gen Ed Request
    - CS 161 Programming & Problem Solving (Contact Hour Change)
2. Mary Kramer (4:15 – 4:30 pm)
    - UAS 102 sUAS Aerial Photogrammetry (Course Revision: req, des)
    - UAS 103 sUAS for Public Safety (Course Revision: req, des)
    - Administrative Assistant (Certificate Revision: out)
    - Manufacturing (Certificate Revision: course)
3. Ashley Michels & Courtney Cunningham (4:30 – 4:40 pm)
    - HEC 226 Child Development (CLO Update)
4. Instructional Council – Gen Ed Dept Chairs and Deans (4:40 – 4:50 pm)
    - Revised Communication Requirement for AAOT, ASOT-BUS, ASOT-CS, AS

Discussion Item:

1. Related Instruction: Standalone courses approved for Communication, Computation, & Human Relations [2 & 3]

Next Meeting: March 5, 2020

Attachments: [1] Submissions: 3 New Courses, 2 Course Revisions, 3 Gen Ed Requests, 1 CLO Update, 2 Certificate Revisions; [2] Standalone Options for Related Instruction; [3] OP Related Instruction

CC date _____
CC decision _____
CC vote _____

Columbia Gorge Community Colleg

New Course
Lower Division Collegiate (LDC)

(Double click on check boxes to activate dialog box)

SECTION #1 GENERAL INFORMATION

Department:	Mathematics	Submitter name: phone: email:	Annette Byers and Pam Morse 541-506-6000 ext. 7176 541-308-8218 abyers@cgcc.edu and pmorse@cgcc.edu
Prefix and Course Number:	MTH 211	Credits:	4
Course Title: (60 characters max, including spaces)	Foundations of Elementary Mathematics I	Transcript Title: (30 characters max, including spaces)	Foundations of Elem Math I
May this course be repeated for credit? ☐ Yes ☒ No	For how many times total?	Contact hours	Lecture: 44 Lec/lab: 0 Lab: 0
Reason for the new course	Addition of AAOT Transfer Pathway Elementary Educator		

GRADE OPTIONS: Check as many or as few options as you'd like. **Choose the default grade option** which will automatically be assigned for students who do not make a grade option choice when registering for classes.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☒	☐
Audit in consultation with faculty	☒	☐

Is this course equivalent to another? If yes, they must have the same description and outcomes.	☐ Yes ☒ No	Course Number and Title

SECTION #2 REQUISITES: PLACEMENT INTO, PRE, CO AND CONCURRENT

Note: if this course is requesting approval for the Gen Ed list, it will have, as a default, the following standard requisites: Prerequisite: MTH 20 or equivalent placement test scores. Prerequisite/concurrent: WR 121. Higher levels of any of these prerequisites, or additional prerequisites can be requested. However, if the department wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to use the Prerequisite Opt-out form available on the Curriculum website.

☐ Standard requisites – Prerequisite: MTH 20 or equivalent placement test scores. Prerequisite/concurrent: WR 121.

☐ Placement into:		☐ Placement into:		
course prefix & number:	MTH 95 or MTH 98 or higher or equivalent placement test scores	☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:	WR 121	☐ Prerequisite	☐ Corequisite	☒ pre/co
course prefix & number:		☐ Prerequisite	☐ Corequisite	☐ pre/co

SECTION #3 COURSE DESCRIPTION, OUTCOMES, AND CONTENT	
COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin each sentence of the course description with an active verb. Avoid using the phrases: "This course will …" and/or "Students will ..." Include course requisites in the description. Guidelines for writing concise descriptions can be found at Writing Course Descriptions.	
Prepares prospective elementary teachers to teach math by strengthening their mathematical background. Explores the following topics: problem solving, sets, whole numbers, number theory, and fractions. First term of a three-term math sequence. Prerequisites: MTH 95 or MTH 98 or higher or equivalent placement test scores; Prerequisite/concurrent: WR 121. Audit available.	
LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Outcomes must be measurable through the application of direct and/or indirect assessment strategies. Three to six outcomes are recommended. Start each outcome with an active verb, completing the sentence starter provided. (See Writing Learning Outcomes on the curriculum website.)	
Outcomes: (Use observable and measurable verbs)	Upon successful completion of this course, students will be able to: 1. Improve and deepen mathematical content knowledge, including: problem solving, sets, whole numbers, number theory, and fractions. 2. Apply various problem-solving strategies to create mathematical models that will help analyze real world scenarios. 3. Use appropriate mathematical vocabulary to strengthen skills needed for communicating while teaching elementary math. 4. Provide examples of mathematical problems that will strengthen students' ability to reason, reflect, observe and engage more deeply in mathematical thinking.
Outcomes assessment strategies:	Reflective Writing Quizzes Class Discussions Homework Problem Solving Assignments Projects Presentations Exams
COURSE CONTENT, ACTIVITIES AND DESIGN	
Activity & Design: The determination of teaching strategies used in the delivery of outcomes is generally left to the discretion of the instructor. On occasion, a department may decide that the inclusion of a particular strategy will be required (specify in "required activities" box below). For example, a department may determine that a course will be required to incorporate a service learning project into its curriculum delivery. However, for the most part, delivery mechanisms fall under academic freedom and so the individuality and creativity of each instructor. Here are some strategies that you might consider when designing your course: lecture, small group/forum discussion, flipped classroom, dyads, oral presentation, role play, simulation scenarios, group projects, service learning projects, hands-on lab, peer review/workshops, cooperative learning (jigsaw, fishbowl), inquiry based instruction, differentiated instruction (learning centers), graphic organizers, etc.	
Department required course activities (optional):	

Course Content – organized by outcomes (list each outcome followed by an outline of the related content):	Outcome #1: Improve and deepen mathematical content knowledge, including: problem solving, sets, whole numbers, number theory, and fractions. 1. Sets and Reasoning 1.1 Venn Diagrams 1.2 Deductive Reasoning 2. Whole numbers 2.1 Numeration 2.2 Addition and Subtraction 2.3 Multiplication 2.4 Division and Exponents 3. Number Theory 3.1 Factors and Multiples 3.2 Greatest Common Factor and Least Common Multiple 4. Integers and Fractions 4.1 Integers 4.2 Fractions 4.3 Operations with Fractions Outcome #2: Apply various problem-solving strategies to create mathematical models that will help analyze real world scenarios. • Introduction to problem solving o Use and present an example of Polya's Four-Step Process o Demonstrate the problem-solving strategies which include: drawing, guessing and checking, making a table, working backward, finding a pattern. o Explain the concept of conjecture • Patterns o Show how patterns and sequences can be used to solve problems Outcome #3: Use appropriate mathematical vocabulary to strengthen skills needed for communicating while teaching elementary math. o Show how mathematical vocabulary is necessary to explain problems o Compare and contrast non-mathematical vocabulary with proper mathematical vocabulary. Outcome #4: Provide examples of mathematical communication that will strengthen student's ability to reason, reflect, observe and engage more deeply in mathematical thinking. o Demonstrate the steps (algorithms) needed for addition, subtraction, multiplication and division of whole numbers, integers and fractions and explain how they work. o Explain the thought processes used for whole number operations: estimation, rounding, divisibility tests. o Apply the definition of fraction and identify the relationship of fractions to whole numbers. o Recognize the models for a variety of conceptual approaches for addition, subtraction, multiplication and division of whole numbers, integers and fractions. o Identify how application problems can be modeled mathematically.

Suggested Texts & Materials (specify if any texts or materials are required):	Mathematics for Elementary Teachers - A Conceptual Approach by Bennett, Burton, Nelson, and Ediger
Department Notes: (optional)	

SECTION #4 TRANSFERABILITY

Concern over students taking many courses that do not have a high transfer value has led to increasing attention to the transferability of LDC courses. The state requires us to certify that at least one Oregon university will accept our new LDC course in transfer. To ensure the quality of our transfer programs and to provide students with the best information on how individual courses will transfer, we require faculty to ascertain the transferability of a proposed course by communicating with colleagues at a minimum of three Oregon universities, asking the following questions.

1. Is there an equivalent lower division course at the university?
2. Will a department accept the course for its major or minor requirements?
3. Will the course be accepted as part of the University's distribution requirements?

While you may contact any Oregon university, we recommend, based on CGCC student transfer history, that you conduct transferability screening with OSU, PSU and EOR as these are the more common destinations of CGCC transfer students. If a course transfers as an elective only, it may still be accepted or approved as an LDC course, depending on the nature of the course, though it will likely not be eligible for Gen Ed status.

Which Oregon universities will the course transfer to? List all	Oregon State, Portland State, Eastern Oregon U.
How does it transfer? Check all that apply	☒ Required or support for major ☒ General education distribution requirement ☒ General elective ☐ Other (provide details)
Provide evidence of transferability from three or more universities. Recommended universities based on CGCC transfer history: OSU, PSU and EOU	☒ Completed Transferability/Articulation of Individual CGCC Courses form ☐ Other - describe
Identify comparables at Oregon community colleges; list college, course prefix, number and title.	MTH 211: Foundations of Elementary Mathematics Portland Community College, Oregon State University, Portland State University, Eastern Oregon University
Are special designations being sought at this time?	☒ General Education – Discipline specific Gen Ed form required. ☐ Cultural Literacy – Cultural Literacy designation request form required. (Cultural Literacy designation requires that the course has a Gen Ed designation.)

SECTION #5 ADDITIONAL INFORMATION FOR NEW LDC COURSES

Is this course in a degree or certificate as required, an elective or a prerequisite? Please provide details.

Name of certificate(s):		# credits:
Name of degree(s):	AAOT Transfer Pathway Elementary Educator	# credits: 90
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Requirement	
Impact on other Programs and Departments		
Are there similar courses existing in other programs or disciplines at CGCC? If yes,	No	

explain and/or describe the nature of acknowledgements and/or agreements that have been reached.	
Have you consulted with the Department Chair(s) of other program(s) regarding potential impact such as content overlap, duplication, prerequisites, enrollment impact etc. Explain and/or describe the nature of acknowledgements or agreements reached.	
Has the Library director been notified regarding the addition of this course and the need for any potential resources?	☒ Yes – date: October 16, 2019 ☐ No
Implementation term:	☒ Start of next academic year (summer term) ☐ Specify term (if BEFORE start of next academic year):
Allow 1-2 months to complete the new course approval process before the course can be scheduled. The Curriculum Office will notify the submitter, department chair, and department director when the course has completed the approval process and is available to be scheduled. Curriculum changes generally go into effect at the beginning of the next academic year (summer term). Mid-year revisions/additions are discouraged but accommodated when possible if there is a specific, identifiable need.	

SECTION #6 DEPARTMENT REVIEW

"I vouch that this submission has been reviewed by the affiliated department chair and department dean and that they have given initial authorization for this submission. I am requesting that it be placed on the next Curriculum Committee agenda with available time slots. I understand that I am required to complete and submit, prior to the day my submission is reviewed by the Curriculum Committee, a Course Signature Form signed by the department chair and dean."

Submitter	Email	Date
Annette Byers Pam Morse	abyers@cgcc.edu pmorse@cgcc.edu	1.13.20
Department Chair (enter name of department chair): Pam Morse		
Department Dean (enter name of department dean): Stephen Shwiff		

NEXT STEPS:

1. Save this document as the course prefix and number (e.g. MTH 65 or HST 104). Send completed form electronically to curriculum@cgcc.edu or slewis@cgcc.edu.
2. Refer to the curriculum office website for the Curriculum Committee meeting schedule and submission deadlines. You are encouraged to send submissions prior to the deadline so that the curriculum office may review and provide feedback.
3. Course submissions will be placed on the next agenda with available time slots. You will be notified of your submission's time for review, and you will be sent a signature page that may be completed electronically or manually by your department chair and department dean. It is the submitter's responsibility to ensure that completed signature pages are delivered to the Curriculum Office the day before the Curriculum Committee meeting for which the submission is scheduled. Submissions without signed signature pages will be postponed.
4. It is not mandatory that you attend the Curriculum Committee meeting in which your submission is scheduled for review; however, it is strongly encouraged that you attend so that you may represent your

Transfer/Articulation of Individual CGCC Courses

Directions:
Complete this form with all applicable information and as much detail as possible. Include any communication (letters, email strings, phone transcripts) you've had with faculty/staff at the Oregon universities. When you have finished, e-mail this as an attachment to the Curriculum Office at: curriculum@cgcc.edu or slewis@cgcc.edu.

In order to obtain a General Education designation, at least three Oregon universities must confirm the course will transfer and one of the schools must approve the transfer as General Education. While it is not mandatory, we highly recommend that the three universities that you contact are Portland State University (PSU), Oregon State University (OSU), and Eastern Oregon University (EOU) as these are the most common transfer destinations of CGCC students.

Course #: MTH 211 **Title:** Fundamentals of Elementary Mathematics I

Credits: 4 **Total Contact Hours:** Lec: 44 Lab: 0 Lec-Lab: 0

Course Description:
Prepare prospective elementary teachers to teach math by strengthening their mathematical background. Explores the flowing topics: problem solving, sets, whole numbers, number theory, and fractions. First term in a three-term math sequence.

Course Prerequisites:
MTH 95 or MTH 98 or higher or equivalent placement test scores; WR 121

This course will be accepted in transfer as counting towards:(please check all that apply, identify receiving university, and provide details)

- ☒ Gen Ed/Distribution req. in: (Science/Computer Science, Math) Eastern Oregon University
- ☒ Requirement in major: AAOT transfer – Gen Ed-Nat/Math/Info Sciences EOU MSTI (multi disciplinary studies)
- ☐ Elective for major: (list major)_____
- ☒ Course Equivalency: MTH 211 at Portland State Univ, Oregon State Univ and Eastern Oregon Univ
- ☐ Other: _____
- ☐ Elective only

Rationale, college/university departments contacted, etc., in support of requested transfer status (**include contact names and titles, times and dates of conversations/emails, and be specific documenting agreements/understandings; include attachments to verify documentation as needed**):
Emails were On October 14th to Oregon State University and Eastern Oregon University. Portland State was sent an email on October 15th.

- Brooke Hewitt Transfer Articulation Specialist Registrar's Office Eastern Oregon University
  - She responded on October 14th with an agreement for MTH 211 and a gen ed designation
- Suzanne Koedoot Transfer Articulation & Degree Maps Coordination, Office of the Registrar-Academic Affairs Portland State University
  - Responded on November 12th. The math department reviewed the course and are going to accept it as equivalent to their MTH 211.
- Michelle Chanjamsri Articulation Coordinator Office of Admissions Oregon State University
  - Responded October 16th MTH 211 will be equivalent to OSU's MTH 211 and will have it in their database for fall of 2020

Based on my conversations with faculty and/or staff at Oregon universities, I verify that to the best of my knowledge, this course will transfer as noted above.

Transfer/Articulation of Individual CGCC Courses

Signature: PMorse Date: 1/17/2020

Printed Name: Pam Morse Title: Dept Chair

Department: Mathematics E-mail: pmorse@cgcc.edu

COLUMBIA GORGE COMMUNITY COLLEGE

Pam Morse <pmorse@cgcc.edu>

Math 211 Transferability

5 messages

Pam Morse <pmorse@cgcc.edu> Mon, Oct 14, 2019 at 12:04 PM
To: articulation@oregonstate.edu

Good Afternoon,

I am attaching our curriculum form for Math 211. I was told that I could send it to this email in hopes of finding out if this course will transfer. If it doesn't, please let me know what my team needs to do! I appreciate your help.

Pam Morse
Chair Math Dept.
Mathematics Instructor
541-308-8218
541-645-0512 (cell/text)
https://cgcc.zoom.us/j/5704017360 (zoom conferencing by appt.)
https://www.cgcc.edu/patricia-pam-morse

"Learning is a treasure that will follow its owner everywhere" - Chinese Proverb

NewLDCCourse.07.24.19 math 211.doc
113K

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articulation <articulation@oregonstate.edu> Wed, Oct 16, 2019 at 1:14 PM
To: Pam Morse <pmorse@cgcc.edu>

Hi Pam,

I will send this over to our math department for review. I'll let you know what they say. Thanks!

Best,

Michelle

Michelle Chanjamsri | Articulation Coordinator | Office of Admissions

(she/her/hers)

Oregon State University | Go Beavs!

Phone: 541.737.4411 | Fax: 541.737.2482

Oregon State University

[Quoted text hidden]

articulation <articulation@oregonstate.edu> Wed, Oct 16, 2019 at 1:37 PM
To: Pam Morse <pmorse@cgcc.edu>

Hi Pam,

MTH 211 will be equivalent to OSU's MTH 211. What term will this course be available? I can add it to our database as soon as I know what effective term to use.

[Quoted text hidden]

Good Afternoon,

[Quoted text hidden]

[Quoted text hidden]

Pam Morse <pmorse@cgcc.edu> Wed, Oct 16, 2019 at 1:39 PM
To: articulation <articulation@oregonstate.edu>

Hi,

We will be teaching this fall of 2020. Math 212 and 213 are in the works and will be sent before the end of the year.

Pam Morse
Chair Math Dept.
Mathematics Instructor
541-308-8218
541-645-0512 (cell/text)
https://cgcc.zoom.us/j/5704017360 (zoom conferencing by appt.)
https://www.cgcc.edu/patricia-pam-morse

"Learning is a treasure that will follow its owner everywhere" - Chinese Proverb

[Quoted text hidden]

articulation <articulation@oregonstate.edu> Fri, Oct 18, 2019 at 12:40 PM
To: Pam Morse <pmorse@cgcc.edu>

Hi Pam,

MTH 211 has been added to our database.

[Quoted text hidden]

COLUMBIA GORGE COMMUNITY COLLEGE

Pam Morse <pmorse@cgcc.edu>

Math 211

4 messages

Pam Morse <pmorse@cgcc.edu> Tue, Oct 15, 2019 at 4:30 PM
To: articulation@pdx.edu

We are in the process of creating 3 new Math courses. Math 211, 212, and 213. I am attaching the paperwork for Math 211. Please let me know if this will transfer. If not, please let me know what more we need to do.

Thank you,
Pam Morse
Chair Math Dept.
Mathematics Instructor
541-308-8218
541-645-0512 (cell/text)
https://cgcc.zoom.us/j/5704017360 (zoom conferencing by appt.)
https://www.cgcc.edu/patricia-pam-morse

"Learning is a treasure that will follow its owner everywhere" - Chinese Proverb

NewLDCCourse.07.24.19 math 211.doc
113K

RO Articulation <articulation@pdx.edu> Tue, Nov 12, 2019 at 9:28 AM
To: Pam Morse <pmorse@cgcc.edu>

Hi Pam,

Our Math faculty have reviewed the course and are going to accept it as equivalent to our MTH 211. They wanted me to share with you our syllabi for MTH 212 and 213 to help make sure that when those classes are developed and proposed, that they will align with our MTH 212 and 213.

Thanks,
Suzanne

[Quoted text hidden]
[Quoted text hidden]

3 attachments

MTH 213.Fall 2018.pdf
166K

MTH 212.Fall 2018.pdf
166K

MTH 211.Fall 2018.pdf
165K

Pam Morse <pmorse@cgcc.edu> Tue, Nov 12, 2019 at 9:31 AM
To: RO Articulation <articulation@pdx.edu>

That is fantastic. Thank you.

Pam Morse
Chair Math Dept.
Mathematics Instructor
541-308-8218
541-645-0512 (cell/text)
https://cgcc.zoom.us/j/5704017360 (zoom conferencing by appt.)
https://www.cgcc.edu/patricia-pam-morse

"Learning is a treasure that will follow its owner everywhere" - Chinese Proverb

[Quoted text hidden]

Pam Morse <pmorse@cgcc.edu> Fri, Nov 15, 2019 at 11:16 AM
To: "Byers, Annette" <abyers@cgcc.edu>

Pam Morse
Chair Math Dept.
Mathematics Instructor
541-308-8218
541-645-0512 (cell/text)
https://cgcc.zoom.us/j/5704017360 (zoom conferencing by appt.)
https://www.cgcc.edu/patricia-pam-morse

"Learning is a treasure that will follow its owner everywhere" - Chinese Proverb

[Quoted text hidden]

3 attachments

MTH 213.Fall 2018.pdf
166K

MTH 212.Fall 2018.pdf
166K

MTH 211.Fall 2018.pdf
165K

COLUMBIA GORGE COMMUNITY COLLEGE

Pam Morse <pmorse@cgcc.edu>

Math 211 transfer-ability

5 messages

Pam Morse <pmorse@cgcc.edu> Mon, Oct 14, 2019 at 11:17 AM
To: bhewitt@eou.edu

Brooke,

As per our conversation of a few minutes ago, I am sending you our Math 211 curriculum information. If the course is not written to where it will transfer, please let me know.

Thanks,
Pam Morse
Chair Math Dept.
Mathematics Instructor
541-308-8218
541-645-0512 (cell/text)
https://cgcc.zoom.us/j/5704017360 (zoom conferencing by appt.)
https://www.cgcc.edu/patricia-pam-morse

"Learning is a treasure that will follow its owner everywhere" - Chinese Proverb

NewLDCCourse.07.24.19 math 211.doc
113K

Brooke Hewitt <bhewitt@eou.edu> Mon, Oct 14, 2019 at 11:22 AM
To: Pam Morse <pmorse@cgcc.edu>

This is exactly what we need :)

So this course will come in as our MATH 211 Founds of Elem Math. It will also gen our gen ed here.

MTH	211	Founds of Elem Math	MATH	211	Founds of Elem Math	I*SMI Gen Ed-Nat/Math/Info Sciences

Let me know if you need more info!
Thanks!
Brooke Hewitt, MBA
(PRONOUNS: She/Her/Hers)
Transfer Articulation Specialist
Registrar's Office - 541.962.3936
bhewitt@eou.edu

Check out how your classes will transfer over HERE!

[Quoted text hidden]

> [Quoted text hidden]
>
>

Pam Morse <pmorse@cgcc.edu> Mon, Oct 14, 2019 at 11:24 AM
To: Brooke Hewitt <bhewitt@eou.edu>

Brooke,

Thank you! If I need more information, I will let you know!

Pam Morse
Chair Math Dept.
Mathematics Instructor
541-308-8218
541-645-0512 (cell/text)
https://cgcc.zoom.us/j/5704017360 (zoom conferencing by appt.)
https://www.cgcc.edu/patricia-pam-morse

"Learning is a treasure that will follow its owner everywhere" - Chinese Proverb

[Quoted text hidden]

Pam Morse <pmorse@cgcc.edu> Mon, Oct 14, 2019 at 11:25 AM
To: "Byers, Annette" <abyers@cgcc.edu>

Our first response for transferability!!

Pam Morse
Chair Math Dept.
Mathematics Instructor
541-308-8218
541-645-0512 (cell/text)
https://cgcc.zoom.us/j/5704017360 (zoom conferencing by appt.)
https://www.cgcc.edu/patricia-pam-morse

"Learning is a treasure that will follow its owner everywhere" - Chinese Proverb

[Quoted text hidden]

Annette Byers <abyers@cgcc.edu> Mon, Oct 14, 2019 at 11:29 AM
To: Pam Morse <pmorse@cgcc.edu>

[Quoted text hidden]

CC date _____
CC decision _____
CC vote _____

Columbia Gorge Community Colleg

General Education/Discipline Studies List Request Form

(Double click on check boxes to activate dialog box)

1. General & Course Information:			
Department	Mathematics	Submitter Name: Phone: Email:	Annette Byers/Pam Morse 541-506-6000 ext. 7176 abyers@cgcc.edu pmorse@cgcc.edu
Course Prefix and Number:	MTH 211	Course Title:	Foundations of Elementary Mathematics I
Course Credits:	4	Gen Ed Category:	☐ Arts and Letters ☐ Social Science ☒ Science, Comp. Sci., and Math
Course Description:	Prepares prospective elementary teachers to teach math by strengthening their mathematical background. Explores the following topics: problem solving, sets, whole numbers, number theory, and fractions. First term of a three-term math sequence. Prerequisites: MTH 95 or MTH 98 or higher or equivalent placement test scores; Prerequisite/concurrent: WR 121. Audit available.		
Course Outcomes:	1. Improve and deepen mathematical content knowledge, including: problem solving, sets, whole numbers, number theory, and fractions. 2. Apply various problem-solving strategies to create mathematical models that will help analyze real world scenarios. 3. Use appropriate mathematical vocabulary to strengthen skills needed for communicating while teaching elementary math. 4. Provide examples of mathematical problems that will strengthen students' ability to reason, reflect, observe and engage more deeply in mathematical thinking.		

Lower Division Collegiate (LDC) courses that apply for General Education/Discipline Studies status must:

1. **Be available to all CGCC students who meet the prerequisites for the course.**
2. **Ensure that the appropriate AAOT Discipline Studies outcomes and criteria are reflected in the course's outcomes.** (If you need to revise your course outcomes, you must complete a Course Revision form.)
3. **Verify course transfer status using the Course Transfer/Articulation Status form** (available on the curriculum website)**.** In order to obtain general education status, at least three Oregon universities must confirm the course will transfer and one of the schools must approve the transfer as general education.
4. **Have the Standard Prerequisites unless the Department Chair has completed the Prerequisite Opt-Out form and that request is approved.**
5. **Be an LDC course that is eligible for the AAOT Discipline Studies List.**

In addition, course content must address the following:

1. **CGCC's General Education Philosophy Statement:** *Through a broad, well-balanced curriculum, the General Education program strives to instill a lifelong love of learning and to foster civic competence within our students.*
2. **CGCC Core Learning Outcomes (CLO):**
   Through their respective disciplines, CGCC students who earn a degree can:
   1. Communicate effectively using appropriate reading, writing, listening, and speaking skills. (*Communication*)
   2. Creatively solve problems by using relevant methods of research, personal reflection, reasoning, and evaluation of information. (*Critical Thinking and Problem-Solving*)
   3. Extract, interpret, evaluate, communicate, and apply quantitative information and methods to solve problems, evaluate claims, and support decisions in their academic, professional and private lives. (*Quantitative Literacy*)

4. Use an understanding of cultural differences to constructively address issues that arise in the workplace and community. (*Cultural Awareness*)
5. Recognize the consequences of human activity upon our social and natural world. (*Community and Environmental Responsibility*)

Course outcomes and content are required, at a minimum, to demonstrate that CLOs 1 (*Communication*) and 2 (*Critical Thinking and Problem Solving*) are addressed as having a "major designation," and at least one additional CLO is addressed as having a "minor designation."

Major Designation:
1. The outcome is addressed recurrently in the curriculum, regularly enough to establish a thorough understanding.
2. Students can demonstrate and are assessed on a thorough understanding of the outcome.
    - The course includes at least one assignment that can be assessed by applying the appropriate CLO rubric.

Minor Designation:
1. The outcome is addressed adequately in the curriculum, establishing fundamental understanding.
2. Students can demonstrate and are assessed on a fundamental understanding of the outcome.
    - The course includes at least one assignment that can be assessed by applying the appropriate CLO rubric.

To establish an intentional learning environment, Core Learning Outcomes (CLOs) require a clear definition of instructional strategies, evidence of recurrent instruction, and employment of several assessment modes.

2. Address CGCC Core Learning Outcomes:	
For each CLO addressed, provide the following: 1) list the course outcome(s) that clearly reflects the CLO; 2) describe relevant course content, outlining how students will gain the skills and knowledge needed to achieve a level of mastery of the CLO; and 3) describe at least one assessment strategy that can be assessed by applying the appropriate CLO rubric.	
Gen Ed designated courses are required to address CLOs 1 and 2 as having a "major designation."	
1. Communicate effectively using appropriate reading, writing, listening, and speaking skills. (*Communication*) ☒ major designation **REQUIRED**	Course Outcomes: 3. Use appropriate mathematical vocabulary to strengthen skills needed for communicating while teaching elementary math. 4. Provide examples of mathematical problems that will strengthen students' ability to reason, reflect, observe and engage more deeply in mathematical thinking. Course Content: Topics in the course will highlight not only math content, but the historical background of elementary math. Mathematicians and math theories from many countries and eras will be introduced. Students will have the opportunity to compare and contrast how math has changed and remained constant over the centuries. Current research regarding the specific algorithms needed for performing math problems will be discussed and practiced. Problem solving involving many fields of study will be addressed. Calculating the needed amount of wood and other materials for construction projects, estimating the number of products needed in order to fill the supply and demand for a specific product, understanding how to group and categorized items, determining the frequency of events, and reading and interpreting data will all be presented to students. Encourage students to use conjecture or informed guessing for the pathway to discovery. A problem may or may not have an apparent solution, but by testing a conjecture, students can refine their problem solving skills. Outcome Assessment Strategies: Reflective writing, class discussions, class presentations, class projects.

2. Creatively solve problems by using relevant methods of research, personal reflection, reasoning, and evaluation of information. (*Critical Thinking and Problem-Solving*) ☒ major designation **REQUIRED**	Course Outcomes: 2. Apply various problem-solving strategies to create mathematical models that will help analyze real world scenarios. 4. Provide examples of mathematical problems that will strengthen students' ability to reason, reflect, observe and engage more deeply in mathematical thinking. Course Content: Exploration of application or real world problems will be emphasized. Reading, interpreting, and solving problems by using proper math vocabulary and strategies will be taught. Students will choose a real world problem to research and present. Possible topics students can present include, but are not limited, to the following topics: explaining radio frequencies, using a ruler to demonstrate fractions, using Venn diagrams and deductive reasoning, demonstrating patterns and how they relate to addition, subtraction, multiplication and division of integers and fractions, creating a numbering system other than base ten, devising a plan to change recipes. Outcome Assessment Strategies: Problem solving homework, quizzes, tests, reflective writing, presentations, and projects.
Provide a response for each of the following three CLOs that your course addresses. At a minimum, Gen Ed designated courses are required to address one of these three as at least a "minor designation". While the Gen Ed designation only requires one additional CLO, please provide a response for all applicable CLOs, "minor" or "major."	
3. Extract, interpret, evaluate, communicate, and apply quantitative information and methods to solve problems, evaluate claims, and support decisions in their academic, professional and private lives. (*Quantitative Literacy*) Check one: ☒ major ☐ minor ☐ not addressed significantly	Course Outcomes: 1. Improve and deepen mathematical content knowledge, including: problem solving, sets, whole numbers, number theory, and fractions. Course Content: By having a solid knowledge of mathematical content, students can explore how mathematics impacts us in everyday life. The deep understanding of the importance of math content knowledge will enable students to convey this knowledge to their k-5 students. Outcome Assessment Strategies: Problem solving homework, quizzes, tests, reflective writing, presentations, and projects.
4. Use an understanding of cultural differences to constructively address issues that arise in the workplace and community. (*Cultural Awareness*) Check one: ☐ major ☐ minor ☒ not addressed significantly	Course Outcomes: Course Content: Outcome Assessment Strategies:

5. Recognize the consequences of human activity upon our social and natural world. (*Community and Environmental Responsibility*) Check one: ☐ major ☐ minor ☒ not addressed significantly	Course Outcomes: Course Content: Outcome Assessment Strategies:

3. Address the AAOT Discipline Studies Outcomes and Criteria:

Complete only the questions regarding outcomes and criteria for the category to which your course belongs - Art and Letters; Social Sciences; Science and Computer Science; or Mathematics.

Mathematics

Outcomes:

As a result of taking General Education Mathematics courses, a student should be able to:

- Use appropriate mathematics to solve problems; and
- Recognize which mathematical concepts are applicable to a scenario, apply appropriate mathematics and technology in its analysis, and then accurately interpret, validate, and communicate the results.

Criteria:

A collegiate level Mathematics course should require students to:

1. Use the tools of arithmetic and algebra to work with more complex mathematical concepts.
2. Design and follow a multi-step mathematical process through to a logical conclusion and judge the reasonableness of the results.
3. Create mathematical models, analyze these models, and, when appropriate, find and interpret solutions.
4. Compare a variety of mathematical tools, including technology, to determine an effective method of analysis.
5. Analyze and communicate both problems and solutions in ways that are useful to themselves and to others.
6. Use mathematical terminology, notation and symbolic processes appropriately and correctly.
7. Make mathematical connections to, and solve problems from other disciplines.

List the course outcome(s) from the course's CCOG that clearly reflect the above outcomes and criteria.*	1. Improve and deepen mathematical content knowledge 2. Apply various problem-solving strategies to create mathematical models that will help analyze real world scenarios. Use Polya's four step problem solving process: understand the problem, devise a plan, execute the plan, and reflect on the results of the solution. 3. Use appropriate mathematical vocabulary to strengthen skills needed for communication while teaching elementary math. 4. Provide examples of mathematical problems that will strengthen students' ability to reason, reflect, observe and engage more deeply in mathematical thinking.
***Note:** It must be clearly evident that the above outcomes are addressed within the course's outcomes. Between your answers to the two outcomes questions below, you also need to address all seven criteria.	
How does the course enable a student to "use appropriate mathematics to solve problems"?	1. Identify the properties of whole number operations such as commutativity, associativity, distributivity and identify. Determine which of these properties to apply when solving problems. 2. Demonstrate when to use standard and non-standard algorithms for addition, subtraction, multiplication and division of whole numbers, integers, and fractions. 3. Identify when and how to use the Polya's problem solving method.

	4. Distinguish when the use of technology is beneficial to learning mathematics. 5. Compare and contrast different mathematical strategies to communicate solutions appropriate to the K-8 audience.
How does the course enable a student to "recognize which mathematical concepts are applicable to a scenario, apply appropriate mathematics and technology in its analysis, and then accurately interpret, validate, and communicate the results"?	6. Use appropriate mathematical vocabulary to strengthen skills needed for communication while teaching elementary math. 7. Show the relevance of the Polya four step problem solving method using application problems from other disciplines.

Section #4 Department Review		
"I vouch that this submission has been reviewed by the affiliated department chair and department dean and that they have given initial authorization for this submission. I am requesting that it be placed on the next Curriculum Committee agenda with available time slots. I understand that I am required to complete and submit, prior to the day my submission is reviewed by the Curriculum Committee, a Course Signature Form signed by the department chair and dean."		
Submitter	Email	Date
Annette Byers/Pam Morse	abyers@cgcc.edu pmorse@cgcc.edu	12-10-2019
Department Chair (enter name of department chair): Pam Morse		
Department Dean (enter name of department dean): Stephen Shwiff		

NEXT STEPS:

1. Save this document as the course prefix and course number.gened (e.g. HST 104.gened). Send completed form electronically to curriculum@cgcc.edu or slewis@cgcc.edu.
2. Refer to the curriculum office website for the Curriculum Committee meeting schedule and submission deadlines. You are encouraged to send submissions prior to the deadline so that the curriculum office may review and provide feedback.
3. Course submissions will be placed on the next agenda with available time slots. You will be notified of your submission's time for review, and you will be sent a signature page that may be completed electronically or manually by your department chair and department dean. It is the submitter's responsibility to ensure that completed signature pages are delivered to the Curriculum Office the day before the Curriculum Committee meeting for which the submission is scheduled. Submissions without signed signature pages will be postponed.
4. It is not mandatory that you attend the Curriculum Committee meeting in which your submission is scheduled for review; however, it is strongly encouraged that you attend so that you may represent your submission and respond to any committee questions. Unanswered questions may result in a submission being rescheduled for further clarification.

CC date _____
CC decision _____
CC vote _____

Columbia Gorge Community College

New Course
Lower Division Collegiate (LDC)

(Double click on check boxes to activate dialog box)

SECTION #1 GENERAL INFORMATION

Department:	Mathematics	Submitter name: phone: email:	Annette Byers/Pam Morse 541-506-6000 ext. 7176 abyers@cgcc.edu pmorse@cgcc.edu
Prefix and Course Number:	MTH 212	Credits:	4
Course Title: (60 characters max, including spaces)	Foundations of Elementary Mathematics II	Transcript Title: (30 characters max, including spaces)	Foundations of Elem Math II
May this course be repeated for credit?	☐ Yes ☒ No For how many times total?	Contact hours	Lecture: 44 Lec/lab: Lab:
Reason for the new course	Requirement for Elementary Educator Transfer Pathway.		

GRADE OPTIONS: Check as many or as few options as you'd like. **Choose the default grade option** which will automatically be assigned for students who do not make a grade option choice when registering for classes.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☒	☐
Audit in consultation with faculty	☒	☐

Is this course equivalent to another? If yes, they must have the same description and outcomes.	☐ Yes ☒ No	Course Number and Title

SECTION #2 REQUISITES: PLACEMENT INTO, PRE, CO AND CONCURRENT

Note: if this course is requesting approval for the Gen Ed list, it will have, as a default, the following standard requisites: Prerequisite: MTH 20 or equivalent placement test scores. Prerequisite/concurrent: WR 121. Higher levels of any of these prerequisites, or additional prerequisites can be requested. However, if the department wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to use the Prerequisite Opt-out form available on the Curriculum website.

☐ Standard requisites – Prerequisite: MTH 20 or equivalent placement test scores. Prerequisite/concurrent: WR 121.

☐ Placement into:		☐ Placement into:		
course prefix & number:	MTH 211	☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:		☐ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:		☐ Prerequisite	☐ Corequisite	☐ pre/co

SECTION #3 COURSE DESCRIPTION, OUTCOMES, AND CONTENT	
COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin each sentence of the course description with an active verb. Avoid using the phrases: "This course will …" and/or "Students will ..." Include course requisites in the description. Guidelines for writing concise descriptions can be found at Writing Course Descriptions.	
Continues to prepare prospective elementary teachers to teach math by strengthening their mathematical background. Explores the following topics: operations involving fractions, decimals, ratio, proportion, percent, integers, also an introduction to statistics and probability. Second term of a three-term sequence. Prerequisites: MTH 211. Audit available.	
LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Outcomes must be measurable through the application of direct and/or indirect assessment strategies. Three to six outcomes are recommended. Start each outcome with an active verb, completing the sentence starter provided. (See Writing Learning Outcomes on the curriculum website.)	
Outcomes: (Use observable and measurable verbs)	Upon successful completion of this course, students will be able to: 1. Improve and deepen mathematical content knowledge, including: operations involving fractions, decimals, ratio, proportion, percent, integers, and introductory statistics and probability. 2. Apply various problem-solving strategies to create mathematical models that will help analyze real world scenarios which focus on fractions, decimals, percent, and statistics. 3. Use the appropriate mathematical vocabulary necessary in the teaching of elementary math. 4. Provide examples of mathematical problems which use fractions, decimals, percent, and statistics that strengthen the ability to reason, reflect, observe and engage more deeply in mathematical thinking.
Outcomes assessment strategies:	Reflective writing Quizzes Class Discussions Homework Problem solving assignments Projects Presentations Exams
COURSE CONTENT, ACTIVITIES AND DESIGN	
Activity & Design: The determination of teaching strategies used in the delivery of outcomes is generally left to the discretion of the instructor. On occasion, a department may decide that the inclusion of a particular strategy will be required (specify in "required activities" box below). For example, a department may determine that a course will be required to incorporate a service learning project into its curriculum delivery. However, for the most part, delivery mechanisms fall under academic freedom and so the individuality and creativity of each instructor. Here are some strategies that you might consider when designing your course: lecture, small group/forum discussion, flipped classroom, dyads, oral presentation, role play, simulation scenarios, group projects, service learning projects, hands-on lab, peer review/workshops, cooperative learning (jigsaw, fishbowl), inquiry based instruction, differentiated instruction (learning centers), graphic organizers, etc.	
Department required course activities (optional):	
Course Content – organized by	Outcome #1: Improve and deepen mathematical content knowledge, including: operations involving fractions, decimals, ratio, proportion, percent, integers, and

outcomes (list each outcome followed by an outline of the related content):	introductory statistics and probability. 1. Expand knowledge of Fractions 1.1 Operations with fractions 1.2 Problem solving with fractions 2. Decimals 2.1 Introduction to decimals 2.2 Operations with decimals 2.3 Problem solving with decimals 3. Ratios, and percent 3.1 Introduction to the differences of ratios and percent 3.2 Problem solve with ratios and percent 4. Scientific Notation 4.1 Applying scientific notation to real life situations 5. Real Numbers 5.1 Introduction to the real numbers 5.2 Problem solving with real numbers 6. Fundamentals of Statistics 6.1 Collecting and graphing data 6.2 Describing and analyzing data 6.3 Using statistical models in the appropriate scenarios 6.4 Predicting outcomes based on statistical data 7. Probability 7.1 Introduction to the fundamentals of probability 7.2 Interpreting results from various types of events Outcome #2: Apply various problem-solving strategies to create mathematical models that will help analyze real world scenarios which focus on fractions, decimals, percent, and statistics. • Demonstrate the problem-solving strategies which include: drawing, guessing and checking, making a table, working backwards, finding a pattern using fraction bars • Use technology to verify and compare the outcomes of various mathematical models in statistics and probability. Outcome #3: Use the appropriate mathematical vocabulary necessary in the teaching of elementary math. • Show how mathematical vocabulary is necessary to explain problems • Compare and contrast non-mathematical vocabulary with proper mathematical vocabulary. Outcome #4: Provide examples of mathematical problems which use fractions, decimals, percent, and statistics that strengthen the ability to reason, reflect, observe and engage more deeply in mathematical thinking. • Demonstrate the steps (algorithms) needed for fractions, decimals, ratios, percent, fundamental statistics and probability and explain how they work. • Explain the thought processes used when analyzing various types of data used in statistics/probability such as graphs, charts, and other data in various formats. • Use technology to model the similarities and differences between fractions, decimals, percent, and probability. • Identify how application problems using fractions, decimals, percent, and statistics can be modeled mathematically.

Suggested Texts & Materials (specify if any texts or materials are required):	Mathematics for Elementary teachers – A conceptual Approach by Bennett, Burton, Nelson, and Ediger
Department Notes: (optional)	

SECTION #4 TRANSFERABILITY

Concern over students taking many courses that do not have a high transfer value has led to increasing attention to the transferability of LDC courses. The state requires us to certify that at least one Oregon university will accept our new LDC course in transfer. To ensure the quality of our transfer programs and to provide students with the best information on how individual courses will transfer, we require faculty to ascertain the transferability of a proposed course by communicating with colleagues at a minimum of three Oregon universities, asking the following questions.

1. Is there an equivalent lower division course at the university?
2. Will a department accept the course for its major or minor requirements?
3. Will the course be accepted as part of the University's distribution requirements?

While you may contact any Oregon university, we recommend, based on CGCC student transfer history, that you conduct transferability screening with OSU, PSU and EOR as these are the more common destinations of CGCC transfer students. If a course transfers as an elective only, it may still be accepted or approved as an LDC course, depending on the nature of the course, though it will likely not be eligible for Gen Ed status.

Which Oregon universities will the course transfer to? List all	Portland Community college, Oregon State University, Portland State University, Eastern Oregon University
How does it transfer? Check all that apply	☒ Required or support for major ☒ General education distribution requirement ☒ General elective ☐ Other (provide details)
Provide evidence of transferability from three or more universities. Recommended universities based on CGCC transfer history: OSU, PSU and EOU	☒ Completed Transferability/Articulation of Individual CGCC Courses form ☐ Other - describe
Identify comparables at Oregon community colleges; list college, course prefix, number and title.	MTH 212 Foundations of Elementary Mathematics II Portland Community college, Oregon State University, Portland State University, Eastern Oregon University
Are special designations being sought at this time?	☒ General Education – Discipline specific Gen Ed form required. ☐ Cultural Literacy – Cultural Literacy designation request form required. (Cultural Literacy designation requires that the course has a Gen Ed designation.)

SECTION #5 ADDITIONAL INFORMATION FOR NEW LDC COURSES

Is this course in a degree or certificate as required, an elective or a prerequisite? Please provide details.

Name of certificate(s):		# credits:
Name of degree(s):	AAOT Transfer Pathway Elementary Educator	# credits: 90
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Requirement	
Impact on other Programs and Departments		

Are there similar courses existing in other programs or disciplines at CGCC? If yes, explain and/or describe the nature of acknowledgements and/or agreements that have been reached.	No
Have you consulted with the Department Chair(s) of other program(s) regarding potential impact such as content overlap, duplication, prerequisites, enrollment impact etc. Explain and/or describe the nature of acknowledgements or agreements reached.	
Has the Library director been notified regarding the addition of this course and the need for any potential resources?	☒ Yes – date: October 16, 2019 ☐ No
Implementation term:	☒ Start of next academic year (summer term) ☐ Specify term (if BEFORE start of next academic year):
Allow 1-2 months to complete the new course approval process before the course can be scheduled. The Curriculum Office will notify the submitter, department chair, and department director when the course has completed the approval process and is available to be scheduled. Curriculum changes generally go into effect at the beginning of the next academic year (summer term). Mid-year revisions/additions are discouraged but accommodated when possible if there is a specific, identifiable need.	

SECTION #6 DEPARTMENT REVIEW

"I vouch that this submission has been reviewed by the affiliated department chair and department dean and that they have given initial authorization for this submission. I am requesting that it be placed on the next Curriculum Committee agenda with available time slots. I understand that I am required to complete and submit, prior to the day my submission is reviewed by the Curriculum Committee, a Course Signature Form signed by the department chair and dean."

Submitter	Email	Date
Annette Byers Pam Morse	abyers@cgcc.edu pmorse@cgcc.edu	1/24/20
Department Chair (enter name of department chair): Pam Morse		
Department Dean (enter name of department dean): Stephen Shwiff		

NEXT STEPS:

1. Save this document as the course prefix and number (e.g. MTH 65 or HST 104). Send completed form electronically to curriculum@cgcc.edu or slewis@cgcc.edu.
2. Refer to the curriculum office website for the Curriculum Committee meeting schedule and submission deadlines. You are encouraged to send submissions prior to the deadline so that the curriculum office may review and provide feedback.
3. Course submissions will be placed on the next agenda with available time slots. You will be notified of your submission's time for review, and you will be sent a signature page that may be completed electronically or manually by your department chair and department dean. It is the submitter's responsibility to ensure that completed signature pages are delivered to the Curriculum Office the day before the Curriculum Committee

Transfer/Articulation of Individual CGCC Courses

Directions:
Complete this form with all applicable information and as much detail as possible. Include any communication (letters, email strings, phone transcripts) you've had with faculty/staff at the Oregon universities. When you have finished, e-mail this as an attachment to the Curriculum Office at: curriculum@cgcc.edu or slewis@cgcc.edu.

In order to obtain a General Education designation, at least three Oregon universities must confirm the course will transfer and one of the schools must approve the transfer as General Education. While it is not mandatory, we highly recommend that the three universities that you contact are Portland State University (PSU), Oregon State University (OSU), and Eastern Oregon University (EOU) as these are the most common transfer destinations of CGCC students.

Course #: MTH 212 Title: Fundamentals of Elementary Mathematics II
Credits: 4 Total Contact Hours: Lec: 44 Lab: 0 Lec-Lab: 0

Course Description:
Continues to prepare prospective elementary teachers to teach math by strengthening their mathematical background. Explores the following topics: operations involving fractions, decimals, ratio, proportion, percent, integers, also an introduction to statistics and probability. Second term of a three-term sequence.

Course Prerequisites:
MTH 211

This course will be accepted in transfer as counting towards:(please check all that apply, identify receiving university, and provide details)

- ☒ Gen Ed/Distribution req. in: (Science/Computer Science, Math) Eastern Oregon University
- ☒ Requirement in major: AAOT transfer - Gen Ed-Nat/Math/Info Sciences EOU MSTI (multi disciplinary studies)
- ☐ Elective for major: (list major) _____
- ☒ Course Equivalency: MTH 212 at Portland State Univ, Oregon State Univ and Eastern Oregon Univ
- ☐ Other: _____
- ☐ Elective only

Rationale, college/university departments contacted, etc., in support of requested transfer status (**include contact names and titles, times and dates of conversations/emails, and be specific documenting agreements/understandings; include attachments to verify documentation as needed**):

Based on my conversations with faculty and/or staff at Oregon universities, I verify that to the best of my knowledge, this course will transfer as noted above.

Signature: PMorse Date: 1/23/2020

Printed Name: Pam Morse Title: Dept. Chair

Department: Mathematics E-mail: pmorse@cgcc.edu

COLUMBIA GORGE COMMUNITY COLLEGE

Pam Morse <pmorse@cgcc.edu>

Math 212 Transferability

2 messages

Pam Morse <pmorse@cgcc.edu> Fri, Jan 17, 2020 at 9:00 AM
To: RO Articulation <articulation@pdx.edu>

I Good Morning,
I am attaching our curriculum form for Math 212. I was told that I could send it to this email in hopes of finding out if this course will transfer and if it will count as a Gen Ed. If it doesn't, please let me know what my team needs to do! I appreciate your help.

Pam Morse
Chair Math Dept.
Mathematics Instructor
541-308-8218
541-645-0512 (cell/text)
https://cgcc.zoom.us/j/5704017360 (zoom conferencing by appt.)
https://www.cgcc.edu/patricia-pam-morse

"Learning is a treasure that will follow its owner everywhere" - Chinese Proverb

Math 212NewLDCCourse.07.24.19 (1).pdf
203K

RO Articulation <articulation@pdx.edu> Tue, Jan 21, 2020 at 12:16 PM
To: Pam Morse <pmorse@cgcc.edu>

Hi Pam,

Your proposed MTH 212 course will transfer as MTH 212, which meets the BS degree requirements for a Math course, as well as MTH 212 for two majors, and several minors.

Thanks,
Suzanne

[Quoted text hidden]

[Quoted text hidden]

COLUMBIA GORGE COMMUNITY COLLEGE

Pam Morse <pmorse@cgcc.edu>

Math 212 Transferability

3 messages

Pam Morse <pmorse@cgcc.edu> Fri, Jan 17, 2020 at 8:56 AM
To: articulation <articulation@oregonstate.edu>

Good Morning,

I am attaching our curriculum form for Math 212. I was told that I could send it to this email in hopes of finding out if this course will transfer and if it will count as a Gen Ed. If it doesn't, please let me know what my team needs to do! I appreciate your help.

Pam Morse
Chair Math Dept.
Mathematics Instructor
541-308-8218
541-645-0512 (cell/text)
https://cgcc.zoom.us/j/5704017360 (zoom conferencing by appt.)
https://www.cgcc.edu/patricia-pam-morse

"Learning is a treasure that will follow its owner everywhere" - Chinese Proverb

Math 212NewLDCCourse.07.24.19 (1).pdf
203K

articulation <articulation@oregonstate.edu> Fri, Jan 17, 2020 at 1:31 PM
To: Pam Morse <pmorse@cgcc.edu>

Hi Pam,

Thank you for sending this over for review!

I believe this might be a good match to our MTH 212 but let me run it by our Math department to be certain. I will get back to you as soon as I hear back from them.

Thank you!

Best,

Michelle

Michelle Chanjamsri | Articulation Coordinator | Office of Admissions

(she/her/hers)

Oregon State University | Go Beavs!

Phone: 541.737.4411 | Fax: 541.737.2482

Oregon State University

[Quoted text hidden]

articulation <articulation@oregonstate.edu> Fri, Jan 17, 2020 at 3:58 PM
To: Pam Morse <pmorse@cgcc.edu>

Hi Pam,

MTH 212 from CGCC is equivalent to MTH 212 from OSU. This course no longer has bacc core, but it's pre-requisite, MTH 211, does. Both courses have been added to our database.

Please let me know if you have any questions.

[Quoted text hidden]

Good Morning,

[Quoted text hidden]

[Quoted text hidden]

COLUMBIA GORGE COMMUNITY COLLEGE

Pam Morse <pmorse@cgcc.edu>

Transfer-ability for Math 212

3 messages

Pam Morse <pmorse@cgcc.edu> Fri, Jan 17, 2020 at 8:54 AM
To: Brooke Hewitt <bhewitt@eou.edu>

Brooke,

We have completed Math 212 and I am sending the curriculum information to verify that it will transfer to EOU. I also need to verify that it will transfer as a Gen Ed.

Thank you for your help.
Pam Morse
Chair Math Dept.
Mathematics Instructor
541-308-8218
541-645-0512 (cell/text)
https://cgcc.zoom.us/j/5704017360 (zoom conferencing by appt.)
https://www.cgcc.edu/patricia-pam-morse

"Learning is a treasure that will follow its owner everywhere" - Chinese Proverb

Math 212NewLDCCourse.07.24.19 (1).pdf
203K

Brooke Hewitt <bhewitt@eou.edu> Fri, Jan 17, 2020 at 9:35 AM
To: Pam Morse <pmorse@cgcc.edu>

Hi Pam,

This course will transfer over as out MATH 212 Elem Math.
This will meet the 180 requirements, Gen Ed SMI requirement, and program math requirements.

Thanks!

EASTERN OREGON UNIVERSITY

Brooke Hewitt, MBA
Transfer Articulation Specialist

p: 541-962-3936

Check out how your classes will transfer over HERE

[Quoted text hidden]
[Quoted text hidden]

Pam Morse <pmorse@cgcc.edu> Fri, Jan 17, 2020 at 9:39 AM
To: Brooke Hewitt <bhewitt@eou.edu>

Thank you for such a quick response!

Pam Morse
Chair Math Dept.
Mathematics Instructor
541-308-8218
541-645-0512 (cell/text)
https://cgcc.zoom.us/j/5704017360 (zoom conferencing by appt.)
https://www.cgcc.edu/patricia-pam-morse

"Learning is a treasure that will follow its owner everywhere" - Chinese Proverb

[Quoted text hidden]

CC date _____
CC decision _____
CC vote _____

Columbia Gorge Community College

General Education/Discipline Studies List Request Form

(Double click on check boxes to activate dialog box)

1. General & Course Information:			
Department	Mathematics	Submitter Name: Phone: Email:	Annette Byers/Pam Morse 541-506-6000 ext. 7176 abyers@cgcc.edu pmorse@cgcc.edu
Course Prefix and Number:	MTH 212	Course Title:	Foundations of Elementary Mathematics II
Course Credits:	4	Gen Ed Category:	☐ Arts and Letters ☐ Social Science ☒ Science, Comp. Sci., and Math
Course Description:	Continues to prepare prospective elementary teachers to teach math by strengthening their mathematical background. Explores the following topics: operations involving fractions, decimals, ratio, proportion, percent, integers, also an introduction to statistics and probability. Second term of a three-term sequence. Prerequisites: MTH 211. Audit available.		
Course Outcomes:	1. Improve and deepen mathematical content knowledge, including: operations involving fractions, decimals, ratio, proportion, percent, integers, and introductory statistics and probability.		
	2. Apply various problem-solving strategies to create mathematical models that will help analyze real world scenarios which focus on fractions, decimals, percent, and statistics.		
	3. Apply various problem-solving strategies to create mathematical models that will help analyze real world scenarios which focus on fractions, decimals		
	4. Provide examples of mathematical problems which use fractions, decimals, percent, and statistics that strengthen the ability to reason, reflect, observe and engage more deeply in mathematical thinking.		

Lower Division Collegiate (LDC) courses that apply for General Education/Discipline Studies status must:

1. **Be available to all CGCC students who meet the prerequisites for the course.**
2. **Ensure that the appropriate AAOT Discipline Studies outcomes and criteria are reflected in the course's outcomes.** (If you need to revise your course outcomes, you must complete a Course Revision form.)
3. **Verify course transfer status using the Course Transfer/Articulation Status form** (available on the curriculum website)**.** In order to obtain general education status, at least three Oregon universities must confirm the course will transfer and one of the schools must approve the transfer as general education.
4. **Have the Standard Prerequisites unless the Department Chair has completed the Prerequisite Opt-Out form and that request is approved.**
5. **Be an LDC course that is eligible for the AAOT Discipline Studies List.**

In addition, course content must address the following:

1. **CGCC's General Education Philosophy Statement:** *Through a broad, well-balanced curriculum, the General Education program strives to instill a lifelong love of learning and to foster civic competence within our students.*

2. CGCC Core Learning Outcomes (CLO):

Through their respective disciplines, CGCC students who earn a degree can:

1. Communicate effectively using appropriate reading, writing, listening, and speaking skills. (*Communication*)
2. Creatively solve problems by using relevant methods of research, personal reflection, reasoning, and evaluation of information. (*Critical Thinking and Problem-Solving*)
3. Extract, interpret, evaluate, communicate, and apply quantitative information and methods to solve problems, evaluate claims, and support decisions in their academic, professional and private lives. (*Quantitative Literacy*)
4. Use an understanding of cultural differences to constructively address issues that arise in the workplace and community. (*Cultural Awareness*)
5. Recognize the consequences of human activity upon our social and natural world. (*Community and Environmental Responsibility*)

Course outcomes and content are required, at a minimum, to demonstrate that CLOs 1 (*Communication*) and 2 (*Critical Thinking and Problem Solving*) are addressed as having a "major designation," and at least one additional CLO is addressed as having a "minor designation."

Major Designation:

1. The outcome is addressed recurrently in the curriculum, regularly enough to establish a thorough understanding.
2. Students can demonstrate and are assessed on a thorough understanding of the outcome.
    - The course includes at least one assignment that can be assessed by applying the appropriate CLO rubric.

Minor Designation:

1. The outcome is addressed adequately in the curriculum, establishing fundamental understanding.
2. Students can demonstrate and are assessed on a fundamental understanding of the outcome.
    - The course includes at least one assignment that can be assessed by applying the appropriate CLO rubric.

To establish an intentional learning environment, Core Learning Outcomes (CLOs) require a clear definition of instructional strategies, evidence of recurrent instruction, and employment of several assessment modes.

2. Address CGCC Core Learning Outcomes:	
For each CLO addressed, provide the following: 1) list the course outcome(s) that clearly reflects the CLO; 2) describe relevant course content, outlining how students will gain the skills and knowledge needed to achieve a level of mastery of the CLO; and 3) describe at least one assessment strategy that can be assessed by applying the appropriate CLO rubric.	
Gen Ed designated courses are required to address CLOs 1 and 2 as having a "major designation."	
1. Communicate effectively using appropriate reading, writing, listening, and speaking skills. (*Communication*) ☒ major designation **REQUIRED**	**Course Outcomes**: 3. Use the appropriate mathematical vocabulary necessary in the teaching of elementary math. 4. Provide example of mathematical problems which use fractions, decimal, present and statistics that strengthen the ability to reason, reflect, observe and engage more deeply in mathematical thinking. **Course Content**: Topics in the course will continue to highlight the math content using both current models and historical models. Students will read articles which will show how math models changed over time. Class and small group discussions focusing on how these changes allowed for more complex operations and application to be used for solving real world problems will be explored. The use of numbers smaller than one (fractions, decimals, percent) and the use of scientific notation to show large numbers will be applied to current events. Sporting events, laser technology, money systems, astronomy, construction, games, and patterns will be investigated. Students will read current events, interpret the mathematical content of the articles, and complete reflective writing assignments to share with the group. Students will collect data to present to the class. This project will include:

	making their own number system along with use of the current algorithms, use of charts and graphs to compare the data, the use of technology to present the project, and examples of student made math manipulatives. During the student presentations, listening and and note taking skills will be modeled and practiced. Continued practice using problem solving strategies for word problems. Student generated word problems based on their everyday lives and the sharing of these problems in class will be emphasized **Outcome Assessment Strategies**: Reflective writing, class discussions, class presentations, class projects, demonstrations, use, and synthesis of a number of manipulatives.
2. Creatively solve problems by using relevant methods of research, personal reflection, reasoning, and evaluation of information. (*Critical Thinking and Problem-Solving*) ☒ major designation **REQUIRED**	**Course Outcomes**: 2. Apply various problem-solving strategies to create mathematical models that will help analyze real world scenarios which focus on fractions, decimals, percent, and statistics. 4. Provide examples of mathematical problems which use fractions, decimals, percent, and statistics that strengthen the ability to reason, reflect, observe and engage more deeply in mathematical thinking **Course Content**: Exploration of application or real-world problems will be emphasized. Reading, interpreting, and solving problems by using proper math vocabulary and strategies will be taught. Students will choose a real-world problem to research and present. Possible topics students can present include, but are not limited, to the following topics: fraction bars, decimal cards using base 10, 100, 1000, percent grids, gears and machines, pie graphs, bar graphs, line graphs, scatterplots, normal distribution, statistical vocabulary, and interpretation of data. Continued practice using problem solving strategies for word problems. Student generated word problems based on their every day lives and the sharing of these problems in class will be emphasized. Games and game theory will be explored in order to demonstrate an introduction to statistics. Dice, cards, spinning wheels, coins, phone games, and board games will encourage students to understand that math is the basis for games. By using reasoning and reflection while playing the games, students will be able to evaluate the mathematical concepts involved while playing the games. Students will share with the group and complete reflective writing assignments to demonstrate how games help to creatively solve problems. **Outcome Assessment Strategies**: Reflective writing, class discussions, class presentations, class projects, demonstrations, quizzes, homework, and tests, small group work.
Provide a response for each of the following three CLOs that your course addresses. At a minimum, Gen Ed designated courses are required to address one of these three as at least a "minor designation". While the Gen Ed designation only requires one additional CLO, please provide a response for all applicable CLOs, "minor" or "major."	

3. Extract, interpret, evaluate, communicate, and apply quantitative information and methods to solve problems, evaluate claims, and support decisions in their academic, professional and private lives. (*Quantitative Literacy*) Check one: ☒ major ☐ minor ☐ not addressed significantly	**Course Outcomes**: 1. Improve and deepen mathematical content knowledge, including: operations involving fractions, decimals, ratio, proportion, percent, integers, and introductory statistics and probability **Course Content**: By practicing mathematical content using fractions, decimals, ratio, proportion, percent, integers, and introductory statistics and probability students can convey the math content knowledge to their k-5 students. **Outcome Assessment Strategies**: Quizzes and tests
4. Use an understanding of cultural differences to constructively address issues that arise in the workplace and community. (*Cultural Awareness*) Check one: ☐ major ☐ minor ☒ not addressed significantly	Course Outcomes: Course Content: Outcome Assessment Strategies:
5. Recognize the consequences of human activity upon our social and natural world. (*Community and Environmental Responsibility*) Check one: ☐ major ☐ minor ☒ not addressed significantly	Course Outcomes: Course Content: Outcome Assessment Strategies:

3. Address the AAOT Discipline Studies Outcomes and Criteria:

Complete only the questions regarding outcomes and criteria for the category to which your course belongs - Art and Letters; Social Sciences; Science and Computer Science; or Mathematics.

Mathematics

Outcomes:

As a result of taking General Education Mathematics courses, a student should be able to:

- Use appropriate mathematics to solve problems; and
- Recognize which mathematical concepts are applicable to a scenario, apply appropriate mathematics and technology in its analysis, and then accurately interpret, validate, and communicate the results.

Criteria:

A collegiate level Mathematics course should require students to:

1. Use the tools of arithmetic and algebra to work with more complex mathematical concepts.
2. Design and follow a multi-step mathematical process through to a logical conclusion and judge the reasonableness of the results.
3. Create mathematical models, analyze these models, and, when appropriate, find and interpret solutions.
4. Compare a variety of mathematical tools, including technology, to determine an effective method of analysis.
5. Analyze and communicate both problems and solutions in ways that are useful to themselves and to others.
6. Use mathematical terminology, notation and symbolic processes appropriately and correctly.
7. Make mathematical connections to, and solve problems from, other disciplines.

List the course outcome(s) from the course's CCOG that clearly reflect the above outcomes and criteria.*	1. Improve and deepen mathematical content knowledge, including: operations involving fractions, decimals, ratio, proportion, percent, integers, and introductory statistics and probability. 2. Apply various problem-solving strategies to create mathematical models that will help analyze real world scenarios which focus on fractions, decimals. 3. Apply various problem-solving strategies to create mathematical models that will help analyze real world scenarios which focus on fractions, decimals. 4. Provide examples of mathematical problems which use fractions, decimals, percent, and statistics that strengthen the ability to reason, reflect, observe and engage more deeply in mathematical thinking.
***Note:** It must be clearly evident that the above outcomes are addressed within the course's outcomes. Between your answers to the two outcomes questions below, you also need to address all seven criteria.	
How does the course enable a student to "use appropriate mathematics to solve problems"?	1. Improve and deepen content knowledge with operations involving fractions, decimals, ratio, proportion, percent, integers, and introductory statistics and probability. 2. Identify the proper methods for solving the algorithms associated with fractions, decimals, ratio, proportions, percent, and integers 3. Given real world problems involving fractions, decimals, and percent, demonstrate the steps to solve the problem. When a solution has been found, check the solution for accuracy. 4. Compare and analyze how technology (calculators, applications, documents, and spreadsheets) can be used to enhance learning for k-8 students. 5. Compare and contrast a variety of strategies to communicate solutions appropriate for the k-8 audience. Use of graphical models, manipulatives, spreadsheets, and traditional algorithms are emphasized. 6. Use appropriate mathematical vocabulary to strengthen skills needed for communication while teaching elementary math. 7. Use a variety of real-world situations to teach the content knowledge drawing from other disciplines. Construction (fractions), economics (percent), health fields (ratio and proportions), weather (integers),
How does the course enable a student to "recognize which mathematical concepts are applicable to a scenario, apply appropriate mathematics and technology in its analysis, and then accurately interpret, validate, and communicate the results"?	1. Compare and analyze how technology (calculators, applications, documents, and spreadsheets) can be used to enhance learning for k-8 students. 2. Compare and contrast a variety of strategies to communicate solutions appropriate for the k-8 audience. Use of graphical models, manipulatives, spreadsheets, and traditional algorithms are emphasized.

Section #4 Department Review		
"I vouch that this submission has been reviewed by the affiliated department chair and department dean and that they have given initial authorization for this submission. I am requesting that it be placed on the next Curriculum Committee agenda with available time slots. I understand that I am required to complete and submit, prior to the day my submission is reviewed by the Curriculum Committee, a Course Signature Form signed by the department chair and dean."		
Submitter	Email	Date
Annette Byers and Pam Morse	abyers@cgcc.edu pmorse@cgcc.edu	January 23, 2020
Department Chair (enter name of department chair): Pam Morse		
Department Dean (enter name of department dean): Stephen Shwiff		

NEXT STEPS:

1. Save this document as the course prefix and course number.gened (e.g. HST 104.gened). Send completed form electronically to curriculum@cgcc.edu or slewis@cgcc.edu.
2. Refer to the curriculum office website for the Curriculum Committee meeting schedule and submission deadlines. You are encouraged to send submissions prior to the deadline so that the curriculum office may review and provide feedback.
3. Course submissions will be placed on the next agenda with available time slots. You will be notified of your submission's time for review, and you will be sent a signature page that may be completed electronically or manually by your department chair and department dean. It is the submitter's responsibility to ensure that completed signature pages are delivered to the Curriculum Office the day before the Curriculum Committee meeting for which the submission is scheduled. Submissions without signed signature pages will be postponed.
4. It is not mandatory that you attend the Curriculum Committee meeting in which your submission is scheduled for review; however, it is strongly encouraged that you attend so that you may represent your submission and respond to any committee questions. Unanswered questions may result in a submission being rescheduled for further clarification.

CC date _____
CC decision _____
CC vote _____

Columbia Gorge Community Colleg

New Course
Lower Division Collegiate (LDC)

(Double click on check boxes to activate dialog box)

SECTION #1 GENERAL INFORMATION

Department:	Mathematics	Submitter name: phone: email:	Annette Byers and Pam Morse 541-506-6000 ext. 7176 541-308-8218 abyers@cgcc.edu and pmorse@cgcc.edu
Prefix and Course Number:	MTH 213	Credits:	4
Course Title: (60 characters max, including spaces)	Foundations of Elementary Mathematics III	Transcript Title: (30 characters max, including spaces)	Foundations of Elem Math III
May this course be repeated for credit? ☐ Yes ☒ No	For how many times total?	Contact hours	Lecture: 44 Lec/lab: 0 Lab: 0
Reason for the new course	Addition of AAOT Transfer Pathway Elementary Educator		

GRADE OPTIONS: Check as many or as few options as you'd like. **Choose the default grade option** which will automatically be assigned for students who do not make a grade option choice when registering for classes.

	Check all that apply	Default (Choose one)
A-F (letter grade)	☒	☒
Pass/No pass	☒	☐
Audit in consultation with faculty	☒	☐

Is this course equivalent to another? If yes, they must have the same description and outcomes.	☐ Yes ☒ No	Course Number and Title

SECTION #2 REQUISITES: PLACEMENT INTO, PRE, CO AND CONCURRENT

Note: if this course is requesting approval for the Gen Ed list, it will have, as a default, the following standard requisites: Prerequisite: MTH 20 or equivalent placement test scores. Prerequisite/concurrent: WR 121. Higher levels of any of these prerequisites, or additional prerequisites can be requested. However, if the department wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to use the Prerequisite Opt-out form available on the Curriculum website.

☐ Standard requisites – Prerequisite: MTH 20 or equivalent placement test scores. Prerequisite/concurrent: WR 121.

☐ Placement into:		☐ Placement into:		
course prefix & number:	MTH 212	☒ Prerequisite	☐ Corequisite	☐ pre/co
course prefix & number:		☐ Prerequisite	☐ Corequisite	☒ pre/co
course prefix & number:		☐ Prerequisite	☐ Corequisite	☐ pre/co

SECTION #3 COURSE DESCRIPTION, OUTCOMES, AND CONTENT	
COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin each sentence of the course description with an active verb. Avoid using the phrases: "This course will …" and/or "Students will ..." Include course requisites in the description. Guidelines for writing concise descriptions can be found at Writing Course Descriptions.	
Continues to prepare prospective elementary teachers to teach math by strengthening their mathematical background. Explores the following topics: problem solving using Algebra, use of the coordinate plane, functions, geometry and measurement. Third term of a three-term math sequence. Prerequisites: MTH 212. Audit available.	
LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Outcomes must be measurable through the application of direct and/or indirect assessment strategies. Three to six outcomes are recommended. Start each outcome with an active verb, completing the sentence starter provided. (See Writing Learning Outcomes on the curriculum website.)	
Outcomes: (Use observable and measurable verbs)	Upon successful completion of this course, students will be able to: 1. Improve and deepen mathematical content knowledge, including: problem solving using Algebra, use of the coordinate plane, functions, geometry and measurement. 2. Apply various problem-solving strategies to create mathematical models that will help analyze real world scenarios. 3. Use appropriate mathematical vocabulary to strengthen skills needed for communicating while teaching elementary math. 4. Provide examples of mathematical problems that will strengthen students' ability to reason, reflect, observe and engage more deeply in mathematical thinking.
Outcomes assessment strategies:	Reflective Writing Quizzes Class Discussions Homework Problem Solving Assignments Projects Presentations Exams
COURSE CONTENT, ACTIVITIES AND DESIGN	
Activity & Design: The determination of teaching strategies used in the delivery of outcomes is generally left to the discretion of the instructor. On occasion, a department may decide that the inclusion of a particular strategy will be required (specify in "required activities" box below). For example, a department may determine that a course will be required to incorporate a service learning project into its curriculum delivery. However, for the most part, delivery mechanisms fall under academic freedom and so the individuality and creativity of each instructor. Here are some strategies that you might consider when designing your course: lecture, small group/forum discussion, flipped classroom, dyads, oral presentation, role play, simulation scenarios, group projects, service learning projects, hands-on lab, peer review/workshops, cooperative learning (jigsaw, fishbowl), inquiry based instruction, differentiated instruction (learning centers), graphic organizers, etc.	
Department required course activities (optional):	
Course Content – organized by outcomes (list each outcome followed by	Outcome #1: Improve and deepen mathematical content knowledge, including: problem solving using Algebra, use of the coordinate plane, functions, geometry and measurement. 1. Solving linear equations

an outline of the related content):	1.1 Linear equality 1.2 Linear inequality 2. Coordinate Plane 2.1 Ordered Pairs 2.2 Slopes 2.3 Lines 3. Functions 3.1 Linear Functions 3.2 Graphical Interpretations 3.3 Use of technology to interpret 4. Geometry 4.12 Dimensional figures 4.2 Angles 4.3 Polygons 4.4 3 Dimensional figures 4.5 Symmetry 5. Measurement 5.1 History of various measuring systems 5.2 English system 5.3 Metric system 5.4 Temperature 5.5 International system of units Outcome #2: Apply various problem-solving strategies to create mathematical models that will help analyze real world scenarios. • Problem solving o Set up Algebraic equations to predict outcomes in real world situations o Create and interpret graphical models o Use perimeter, area, and volume and apply these to real life situations Outcome #3: Use the appropriate mathematical vocabulary necessary in the teaching elementary math. • Show how mathematical vocabulary is necessary to explain problems • Compare and contrast non-mathematical vocabulary with proper mathematical vocabulary. Outcome #4: Provide examples of mathematical communication that will strengthen the student's ability to reason, reflect, observe and engage more deeply in mathematical thinking. • Demonstrate the steps needed for solving linear equations and explain how these can be used to problem solve • Recognize the appropriate equations to find perimeter, area, and volume of polygons. • Explain how the history of measurement has changed over time. • Identify how application problems can be modeled mathematically. • Apply the definitions in the areas of linear equations, geometry and various systems of measurement.

Suggested Texts & Materials (specify if any texts or materials are required):	Mathematics for Elementary Teachers - A Conceptual Approach by Bennett, Burton, Nelson, and Ediger
Department Notes: (optional)	

SECTION #4 TRANSFERABILITY

Concern over students taking many courses that do not have a high transfer value has led to increasing attention to the transferability of LDC courses. The state requires us to certify that at least one Oregon university will accept our new LDC course in transfer. To ensure the quality of our transfer programs and to provide students with the best information on how individual courses will transfer, we require faculty to ascertain the transferability of a proposed course by communicating with colleagues at a minimum of three Oregon universities, asking the following questions.

1. Is there an equivalent lower division course at the university?
2. Will a department accept the course for its major or minor requirements?
3. Will the course be accepted as part of the University's distribution requirements?

While you may contact any Oregon university, we recommend, based on CGCC student transfer history, that you conduct transferability screening with OSU, PSU and EOR as these are the more common destinations of CGCC transfer students. If a course transfers as an elective only, it may still be accepted or approved as an LDC course, depending on the nature of the course, though it will likely not be eligible for Gen Ed status.

Which Oregon universities will the course transfer to? List all	Oregon State, Portland State, Eastern Oregon U.
How does it transfer? Check all that apply	☒ Required or support for major ☒ General education distribution requirement ☒ General elective ☐ Other (provide details)
Provide evidence of transferability from three or more universities. Recommended universities based on CGCC transfer history: OSU, PSU and EOU	☒ Completed Transferability/Articulation of Individual CGCC Courses form ☐ Other - describe
Identify comparables at Oregon community colleges; list college, course prefix, number and title.	MTH 213: Foundations of Elementary Mathematics Portland Community College, Oregon State University, Portland State University, Eastern Oregon University
Are special designations being sought at this time?	☒ General Education – Discipline specific Gen Ed form required. ☐ Cultural Literacy – Cultural Literacy designation request form required. (Cultural Literacy designation requires that the course has a Gen Ed designation.)

SECTION #5 ADDITIONAL INFORMATION FOR NEW LDC COURSES

Is this course in a degree or certificate as required, an elective or a prerequisite? Please provide details.

Name of certificate(s):		# credits:
Name of degree(s):	AAOT Transfer Pathway Elementary Educator	# credits: 90
Briefly explain how this course fits into the above program(s), i.e. requirement or elective:	Requirement	
Impact on other Programs and Departments		
Are there similar courses existing in other programs or disciplines at CGCC? If yes,	No	

explain and/or describe the nature of acknowledgements and/or agreements that have been reached.	
Have you consulted with the Department Chair(s) of other program(s) regarding potential impact such as content overlap, duplication, prerequisites, enrollment impact etc. Explain and/or describe the nature of acknowledgements or agreements reached.	
Has the Library director been notified regarding the addition of this course and the need for any potential resources?	☒ Yes – date: January 21, 2020 ☐ No
Implementation term:	☒ Start of next academic year (summer term) ☐ Specify term (if BEFORE start of next academic year):
Allow 1-2 months to complete the new course approval process before the course can be scheduled. The Curriculum Office will notify the submitter, department chair, and department director when the course has completed the approval process and is available to be scheduled. Curriculum changes generally go into effect at the beginning of the next academic year (summer term). Mid-year revisions/additions are discouraged but accommodated when possible if there is a specific, identifiable need.	

SECTION #6 DEPARTMENT REVIEW

"I vouch that this submission has been reviewed by the affiliated department chair and department dean and that they have given initial authorization for this submission. I am requesting that it be placed on the next Curriculum Committee agenda with available time slots. I understand that I am required to complete and submit, prior to the day my submission is reviewed by the Curriculum Committee, a Course Signature Form signed by the department chair and dean."

Submitter	Email	Date
Annette Byers Pam Morse	abyers@cgcc.edu pmorse@cgcc.edu	1/24/20
Department Chair (enter name of department chair): Pam Morse		
Department Dean (enter name of department dean): Stephen Shwiff		

NEXT STEPS:

1. Save this document as the course prefix and number (e.g. MTH 65 or HST 104). Send completed form electronically to curriculum@cgcc.edu or slewis@cgcc.edu.
2. Refer to the curriculum office website for the Curriculum Committee meeting schedule and submission deadlines. You are encouraged to send submissions prior to the deadline so that the curriculum office may review and provide feedback.
3. Course submissions will be placed on the next agenda with available time slots. You will be notified of your submission's time for review, and you will be sent a signature page that may be completed electronically or manually by your department chair and department dean. It is the submitter's responsibility to ensure that completed signature pages are delivered to the Curriculum Office the day before the Curriculum Committee meeting for which the submission is scheduled. Submissions without signed signature pages will be postponed.
4. It is not mandatory that you attend the Curriculum Committee meeting in which your submission is scheduled for review; however, it is strongly encouraged that you attend so that you may represent your submission and respond to any committee questions. Unanswered questions may result in a submission being rescheduled for further clarification.

Transfer/Articulation of Individual CGCC Courses

Directions:
Complete this form with all applicable information and as much detail as possible. Include any communication (letters, email strings, phone transcripts) you've had with faculty/staff at the Oregon universities. When you have finished, e-mail this as an attachment to the Curriculum Office at: curriculum@cgcc.edu or slewis@cgcc.edu.

In order to obtain a General Education designation, at least three Oregon universities must confirm the course will transfer and one of the schools must approve the transfer as General Education. While it is not mandatory, we highly recommend that the three universities that you contact are Portland State University (PSU), Oregon State University (OSU), and Eastern Oregon University (EOU) as these are the most common transfer destinations of CGCC students.

Course #: MTH 213 Title: Fundamentals of Elementary Mathematics III
Credits: 4 Total Contact Hours: Lec: 44 Lab: 0 Lec-Lab: 0

Course Description:
Continues to prepare prospective elementary teachers to teach math by strengthening their mathematical background. Explores the following topics: operations involving fractions, decimals, ratio, proportion, percent, integers, also an introduction to statistics and probability. Second term of a three-term sequence.

Course Prerequisites:
MTH 211

This course will be accepted in transfer as counting towards:(please check all that apply, identify receiving university, and provide details)

- ☒ Gen Ed/Distribution req. in: (Science/Computer Science, Math) Eastern Oregon University
- ☒ Requirement in major: AAOT transfer - Gen Ed-Nat/Math/Info Sciences EOU MSTI (multi disciplinary studies)
- ☐ Elective for major: (list major) _____
- ☒ Course Equivalency: MTH 213 at Portland State Univ, Eastern Oregon Univ and 390 at Oregon State Univ.
- ☐ Other: _____
- ☐ Elective only

Rationale, college/university departments contacted, etc., in support of requested transfer status (**include contact names and titles, times and dates of conversations/emails, and be specific documenting agreements/understandings; include attachments to verify documentation as needed**):

Based on my conversations with faculty and/or staff at Oregon universities, I verify that to the best of my knowledge, this course will transfer as noted above.

Signature: P Morse Date: 1/23/2020

Printed Name: Pam Morse Title: Dept. Chair

Department: Mathematics E-mail: pmorse@cgcc.edu

COLUMBIA GORGE COMMUNITY COLLEGE

Pam Morse <pmorse@cgcc.edu>

Math 213 transferability

2 messages

Pam Morse <pmorse@cgcc.edu> Wed, Jan 22, 2020 at 10:51 AM
To: RO Articulation <articulation@pdx.edu>

Good Morning,
I am attaching our curriculum form for Math 213. I was told that I could send it to this email in hopes of finding out if this course will transfer and if it will count as a Gen Ed. If it doesn't, please let me know what my team needs to do! I appreciate your help.

Pam Morse
Chair Math Dept.
Mathematics Instructor
541-308-8218
541-645-0512 (cell/text)
https://cgcc.zoom.us/j/5704017360 (zoom conferencing by appt.)
https://www.cgcc.edu/patricia-pam-morse

"Learning is a treasure that will follow its owner everywhere" - Chinese Proverb

MTH 213.pdf
222K

RO Articulation <articulation@pdx.edu> Thu, Jan 23, 2020 at 3:12 PM
To: Pam Morse <pmorse@cgcc.edu>

---------- Forwarded message ---------
From: **Bin Jiang** <bjiang@pdx.edu>
Date: Thu, Jan 23, 2020 at 2:45 PM
Subject: RE: Math 213 transferability
To: RO Articulation <articulation@pdx.edu>

Hello Suzanne,

Based on a careful comparison of the proposed math 213 course syllabus by CGCC with our own math 213 course outline, I believe this new course can be transferred to PSU as our own math 213.

Best regards,

Bin

From: skoedoot@pdx.edu <skoedoot@pdx.edu> **On Behalf Of** RO Articulation
Sent: Wednesday, January 22, 2020 10:57 AM
To: Bin Jiang <bjiang@pdx.edu>
Subject: Fwd: Math 213 transferability

Hi Bin,

Hopefully this one will be quick! Will you please take a look at this MTH 213 course from CGCC and let me know if it should transfer as our MTH 213, or as something else?

Thanks,

Suzanne

[Quoted text hidden]

COLUMBIA GORGE COMMUNITY COLLEGE

Pam Morse <pmorse@cgcc.edu>

math 213 Transferability

5 messages

Pam Morse <pmorse@cgcc.edu> Wed, Jan 22, 2020 at 10:52 AM
To: articulation <articulation@oregonstate.edu>

Good Morning,
I am attaching our curriculum form for Math 213. I was told that I could send it to this email in hopes of finding out if this course will transfer and if it will count as a Gen Ed. If it doesn't, please let me know what my team needs to do! I appreciate your help.

Pam Morse
Chair Math Dept.
Mathematics Instructor
541-308-8218
541-645-0512 (cell/text)
https://cgcc.zoom.us/j/5704017360 (zoom conferencing by appt.)
https://www.cgcc.edu/patricia-pam-morse

"Learning is a treasure that will follow its owner everywhere" - Chinese Proverb

MTH 213.pdf
222K

articulation <articulation@oregonstate.edu> Wed, Jan 22, 2020 at 12:30 PM
To: Pam Morse <pmorse@cgcc.edu>

Hi Pam,

I have forwarded this course proposal to our math department for review. I will let you know as soon as I hear back from them.

Thank you for sending this over!

Best,

Michelle

Michelle Chanjamsri | Articulation Coordinator | Office of Admissions

(she/her/hers)

Oregon State University | Go Beavs!

Phone: 541.737.4411 | Fax: 541.737.2482

[Quoted text hidden]

articulation <articulation@oregonstate.edu> Wed, Jan 22, 2020 at 4:06 PM
To: Pam Morse <pmorse@cgcc.edu>

Hi Pam,

We will accept MTH 213 as equivalent to OSU's MTH 390 with lower division designation. Could you tell me what effective term this course will be available?

Thank you!

[Quoted text hidden]

Good Morning,

[Quoted text hidden]

[Quoted text hidden]

Pam Morse <pmorse@cgcc.edu> Wed, Jan 22, 2020 at 4:10 PM
To: articulation <articulation@oregonstate.edu>

We will be teaching this course spring of next year. It is the third in the sequence of 211, 212 and 213. Math 211 will start Fall of 2020, with 212 Winter 2021 and 213 Spring of 2021.

Pam Morse
Chair Math Dept.
Mathematics Instructor
541-308-8218
541-645-0512 (cell/text)
https://cgcc.zoom.us/j/5704017360 (zoom conferencing by appt.)
https://www.cgcc.edu/patricia-pam-morse

"Learning is a treasure that will follow its owner everywhere" - Chinese Proverb

[Quoted text hidden]

articulation <articulation@oregonstate.edu> Wed, Jan 22, 2020 at 4:30 PM
To: Pam Morse <pmorse@cgcc.edu>

Great, MTH 213 has been entered into our database.

Please let me know if there is anything else I can do.

[Quoted text hidden]

COLUMBIA GORGE COMMUNITY COLLEGE

Pam Morse <pmorse@cgcc.edu>

Transfer-ability for Math 213

2 messages

Pam Morse <pmorse@cgcc.edu> Wed, Jan 22, 2020 at 10:53 AM
To: Brooke Hewitt <bhewitt@eou.edu>

Good Morning,
I am attaching our curriculum form for Math 213. I was told that I could send it to this email in hopes of finding out if this course will transfer and if it will count as a Gen Ed. If it doesn't, please let me know what my team needs to do! I appreciate your help.

Pam Morse
Chair Math Dept.
Mathematics Instructor
541-308-8218
541-645-0512 (cell/text)
https://cgcc.zoom.us/j/5704017360 (zoom conferencing by appt.)
https://www.cgcc.edu/patricia-pam-morse

"Learning is a treasure that will follow its owner everywhere" - Chinese Proverb

MTH 213.pdf
222K

Brooke Hewitt <bhewitt@eou.edu> Wed, Jan 22, 2020 at 2:16 PM
To: Pam Morse <pmorse@cgcc.edu>

This course will transfer over as out MATH 213 Elem Math.
This will meet the 180 requirements, Gen Ed SMI requirement, and program math requirements.

Thanks!

EASTERN OREGON UNIVERSITY

Brooke Hewitt, MBA
Transfer Articulation Specialist

p: 541-962-3936

Check out how your classes will transfer over HERE

[Quoted text hidden]

[Quoted text hidden]

CC date _____
CC decision _____
CC vote _____

Columbia Gorge Community Colleg

General Education/Discipline Studies List Request Form

(Double click on check boxes to activate dialog box)

1. General & Course Information:			
Department	Mathematics	Submitter Name: Phone: Email:	Annette Byers/Pam Morse 541-506-6000 ext. 7176 abyers@cgcc.ede pmorse@cgcc.edu
Course Prefix and Number:	MTH 213	Course Title:	Foundations of Elementary Mathematics III
Course Credits:	4	Gen Ed Category:	☐ Arts and Letters ☐ Social Science ☒ Science, Comp. Sci., and Math
Course Description:	Continues to prepare prospective elementary teachers to teach math by strengthening their mathematical background. Explores the following topics: problem solving using Algebra, use of the coordinate plane, functions, geometry and measurement. Third term of a three-term math sequence. Prerequisites: MTH 212. Audit available.		
Course Outcomes:	1. Improve and deepen mathematical content knowledge, including: problem solving using Algebra, use of the coordinate plane, functions, geometry and measurement.		
	2. Apply various problem-solving strategies to create mathematical models that will help analyze real world scenarios.		
	3. Use appropriate mathematical vocabulary to strengthen skills needed for communicating while teaching elementary math.		
	4. Provide examples of mathematical problems that will strengthen students' ability to reason, reflect, observe and engage more deeply in mathematical thinking.		

Lower Division Collegiate (LDC) courses that apply for General Education/Discipline Studies status must:

1. **Be available to all CGCC students who meet the prerequisites for the course.**
2. **Ensure that the appropriate AAOT Discipline Studies outcomes and criteria are reflected in the course's outcomes.** (If you need to revise your course outcomes, you must complete a Course Revision form.)
3. **Verify course transfer status using the Course Transfer/Articulation Status form** (available on the curriculum website)**.** In order to obtain general education status, at least three Oregon universities must confirm the course will transfer and one of the schools must approve the transfer as general education.
4. **Have the Standard Prerequisites unless the Department Chair has completed the Prerequisite Opt-Out form and that request is approved.**
5. **Be an LDC course that is eligible for the AAOT Discipline Studies List.**

In addition, course content must address the following:

1. **CGCC's General Education Philosophy Statement:** *Through a broad, well-balanced curriculum, the General Education program strives to instill a lifelong love of learning and to foster civic competence within our students.*
2. **CGCC Core Learning Outcomes (CLO):**
   Through their respective disciplines, CGCC students who earn a degree can:
   1. Communicate effectively using appropriate reading, writing, listening, and speaking skills. (*Communication*)
   2. Creatively solve problems by using relevant methods of research, personal reflection, reasoning, and evaluation of information. (*Critical Thinking and Problem-Solving*)

3. Extract, interpret, evaluate, communicate, and apply quantitative information and methods to solve problems, evaluate claims, and support decisions in their academic, professional and private lives. (*Quantitative Literacy*)
4. Use an understanding of cultural differences to constructively address issues that arise in the workplace and community. (*Cultural Awareness*)
5. Recognize the consequences of human activity upon our social and natural world. (*Community and Environmental Responsibility*)

Course outcomes and content are required, at a minimum, to demonstrate that CLOs 1 (*Communication*) and 2 (*Critical Thinking and Problem Solving*) are addressed as having a "major designation," and at least one additional CLO is addressed as having a "minor designation."

Major Designation:
1. The outcome is addressed recurrently in the curriculum, regularly enough to establish a thorough understanding.
2. Students can demonstrate and are assessed on a thorough understanding of the outcome.
    - The course includes at least one assignment that can be assessed by applying the appropriate CLO rubric.

Minor Designation:
1. The outcome is addressed adequately in the curriculum, establishing fundamental understanding.
2. Students can demonstrate and are assessed on a fundamental understanding of the outcome.
    - The course includes at least one assignment that can be assessed by applying the appropriate CLO rubric.

To establish an intentional learning environment, Core Learning Outcomes (CLOs) require a clear definition of instructional strategies, evidence of recurrent instruction, and employment of several assessment modes.

2. Address CGCC Core Learning Outcomes:	
For each CLO addressed, provide the following: 1) list the course outcome(s) that clearly reflects the CLO; 2) describe relevant course content, outlining how students will gain the skills and knowledge needed to achieve a level of mastery of the CLO; and 3) describe at least one assessment strategy that can be assessed by applying the appropriate CLO rubric.	
Gen Ed designated courses are required to address CLOs 1 and 2 as having a "major designation."	
1. Communicate effectively using appropriate reading, writing, listening, and speaking skills. (*Communication*) ☒ major designation **REQUIRED**	**Course Outcomes**: 3. Use appropriate mathematical vocabulary to strengthen skills needed for communicating while teaching elementary math. **Course Content**: Communicating mathematical concepts using line graphs, bar graphs, pictographs, charts, pie charts, pictures, three dimensional shapes, and other manipulatives will require proper, mathematical vocabulary. Investigating effective and creative methods for students to demonstrate mastery of the mathematical vocabulary and concepts will be explored. Students will create an experiment, collect data, present the data, and discuss their findings. Possible topics could include, but are not limited to: effectiveness of solar power, amusement park rides, cost over time of cell phones, temperature changes over time, interpretation of medical data. Emphasis will be on graphically representing the data. Comparing and contrasting the various measurement systems used today and in history will be explored. Students will study the usability of the systems, the origins, and effectiveness. They will also develop ideas on how a universal measuring system could be implemented. **Outcome Assessment Strategies**: Reflective writing, quizzes, class discussions, homework, problem solving assignments, projects, presentations, exams.

2. Creatively solve problems by using relevant methods of research, personal reflection, reasoning, and evaluation of information. (*Critical Thinking and Problem-Solving*) ☒ major designation **REQUIRED**	**Course Outcomes**: 2. Apply various problem-solving strategies to create mathematical models that will help analyze real world scenarios. 4. Provide examples of mathematical problems that will strengthen students' ability to reason, reflect, observe and engage more deeply in mathematical thinking. **Course Content**: Manipulatives will be a major focus for solving problems using the coordinate plane, geometric figures, and systems of measurement. Students will have the opportunity to find the perimeter, area, and volume of a number of regular polygons plus a number of irregularly shaped figures. Constructing structures using regular shapes, drawing mazes, creating designs (such as a quilt pattern or medallion) using geometric shapes, analyzing current and ancient building designs, and using measuring systems accurately will be explored. Each project or assignment students will have the opportunity to reflect on their findings and interpret how their learning will assist them when they teach the material. **Outcome Assessment Strategies**: Reflective writing, quizzes, class discussions, homework, problem solving assignments, projects, presentations, exams.
Provide a response for each of the following three CLOs that your course addresses. At a minimum, Gen Ed designated courses are required to address one of these three as at least a "minor designation". While the Gen Ed designation only requires one additional CLO, please provide a response for all applicable CLOs, "minor" or "major."	
3. Extract, interpret, evaluate, communicate, and apply quantitative information and methods to solve problems, evaluate claims, and support decisions in their academic, professional and private lives. (*Quantitative Literacy*) Check one: ☒ major ☐ minor ☐ not addressed significantly	**Course Outcomes**: 1. Improve and deepen mathematical content knowledge, including: problem solving using Algebra, use of the coordinate plane, functions, geometry and measurement. 4. Provide examples of mathematical problems that will strengthen students' ability to reason, reflect, observe and engage more deeply in mathematical thinking. **Course Content**: Knowledge of the basic concepts of algebra, geometry, and measurement will be used to solve problems. Because vocabulary is vital for the interpretation of mathematical problems, methods to use and learn mathematical terms will be emphasized. Using the mathematical vocabulary in displays, projects, presentations, and writing assignments will solidify student's knowledge of the definitions and applications needed to solve math problems. Devising equations and using standard formulas to solve problems will assist students while they evaluate real world math problems. Explaining how having formulas or equations to apply to problems enables problems to be solved more easily will be emphasized. For example, students will be given measurements and shapes to build they own structure. The steps to completing this task should include: understating the problem, devising a plan, carrying out the plan and checking to see if the plan is effective. **Outcome Assessment Strategies**: Reflective writing, quizzes, class discussions, homework, problem solving assignments, projects, presentations, exams.

4. Use an understanding of cultural differences to constructively address issues that arise in the workplace and community. (*Cultural Awareness*) Check one: ☐ major ☐ minor ☒ not addressed significantly	Course Outcomes: Course Content: Outcome Assessment Strategies:
5. Recognize the consequences of human activity upon our social and natural world. (*Community and Environmental Responsibility*) Check one: ☐ major ☐ minor ☒ not addressed significantly	Course Outcomes: Course Content: Outcome Assessment Strategies:

3. Address the AAOT Discipline Studies Outcomes and Criteria:

Complete only the questions regarding outcomes and criteria for the category to which your course belongs - Art and Letters; Social Sciences; Science and Computer Science; or Mathematics.

Mathematics

Outcomes:

As a result of taking General Education Mathematics courses, a student should be able to:

- Use appropriate mathematics to solve problems; and
- Recognize which mathematical concepts are applicable to a scenario, apply appropriate mathematics and technology in its analysis, and then accurately interpret, validate, and communicate the results.

Criteria:

A collegiate level Mathematics course should require students to:

1. Use the tools of arithmetic and algebra to work with more complex mathematical concepts.
2. Design and follow a multi-step mathematical process through to a logical conclusion and judge the reasonableness of the results.
3. Create mathematical models, analyze these models, and, when appropriate, find and interpret solutions.
4. Compare a variety of mathematical tools, including technology, to determine an effective method of analysis.
5. Analyze and communicate both problems and solutions in ways that are useful to themselves and to others.
6. Use mathematical terminology, notation and symbolic processes appropriately and correctly.
7. Make mathematical connections to, and solve problems from, other disciplines.

List the course outcome(s) from the course's CCOG that clearly reflect the above outcomes and criteria.*	1. Improve and deepen mathematical content knowledge, including: problem solving using Algebra, use of the coordinate plane, functions, geometry and measurement. 2. Apply various problem-solving strategies to create mathematical models that will help analyze real world scenarios. 3. Use appropriate mathematical vocabulary to strengthen skills needed for communicating while teaching elementary math. 4. Provide examples of mathematical problems that will strengthen students' ability to reason, reflect, observe and engage more deeply in mathematical thinking.

***Note:** It must be clearly evident that the above outcomes are addressed within the course's outcomes. Between your answers to the two outcomes questions below, you also need to address all seven criteria.	
How does the course enable a student to "use appropriate mathematics to solve problems"?	1. Improve and deepen mathematical content knowledge, with operations involving basic algebra, geometry, and measurement. 2. Use the problem-solving method of understand the problem, devising a plan, carrying out the plan, and checking for accuracy. 3. Apply various problem-solving strategies to create mathematical models that will help analyze real world problems using basic algebra, geometry, and measurement. 4. Compare and analyze how technology (calculators, applications, documents, and spreadsheets) can be used to enhance learning. 5. Compare and contrast a variety of strategies to communicate solutions appropriate for the k-8 audience. Use of graphical modes, manipulatives, spreadsheets and traditional algorithms will enable students to convey their knowledge to k-8 students. 6. Use appropriate mathematical vocabulary to strength skills needed for communication while teaching elementary math. 7. Use a variety of mathematical problems from other disciplines to make connections.
How does the course enable a student to "recognize which mathematical concepts are applicable to a scenario, apply appropriate mathematics and technology in its analysis, and then accurately interpret, validate, and communicate the results"?	Compare and analyze how technology (calculators, applications, documents, and spreadsheets) can be used to enhance learning. Through practice and mastery of the content knowledge using basic algebra, geometry, and measurement, students will have the appropriate skills to communicate the results of mathematical models. Mathematical methods such as graphs, equations, spreadsheets and manipulatives will be used to communicate results of data collection. Communicating the results of real-world math problems through class discussions, group discussions, reflective writing, and use of technology will enable students to understand the role math plays in everyday life. With these mathematical content skills, students will be able to appropriately communicate to their k-8 audience.

Section #4 Department Review

"I vouch that this submission has been reviewed by the affiliated department chair and department dean and that they have given initial authorization for this submission. I am requesting that it be placed on the next Curriculum Committee agenda with available time slots. I understand that I am required to complete and submit, prior to the day my submission is reviewed by the Curriculum Committee, a Course Signature Form signed by the department chair and dean."

Submitter	Email	Date
Annette Byers Pam Morse	abyers@cgcc.edu pmorse@cgcc.edu	January 24, 2020
Department Chair (enter name of department chair): Pam Morse		
Department Dean (enter name of department dean): Stephen Shwiff		

NEXT STEPS:

1. Save this document as the course prefix and course number.gened (e.g. HST 104.gened). Send completed form electronically to curriculum@cgcc.edu or slewis@cgcc.edu.
2. Refer to the curriculum office website for the Curriculum Committee meeting schedule and submission deadlines. You are encouraged to send submissions prior to the deadline so that the curriculum office may review and provide feedback.
3. Course submissions will be placed on the next agenda with available time slots. You will be notified of your submission's time for review, and you will be sent a signature page that may be completed electronically or

Columbia Gorge Community College

Contact Hours / Credit Change

(Double click on check boxes to activate dialog box)

SECTION #1 GENERAL INFORMATION			
Department	Mathematics	Submitter name: Phone: Email:	Pam Morse 541-308-8218
Course prefix and number	CS 161	Course title	Programming & Problem Solving

Contact and Credit Hours
- 1 credit of lecture meets 1 hr /wk, plus 2 hrs/wk of study for 10 weeks = 30 hr
- 1 credit of lec-lab meets 2 hr/wk, plus 1 hr of study, for 10 weeks = 30 hr
- 1 credit of lab or cooperative ed meets 3 hrs/wk, with minimal outside study, for 10 wks = 30 hr

Current Contact And Credit Hours		Proposed Contact And Credit Hours	
Lecture	30	Lecture	44
Lab	30	Lab	
Lecture/Lab		Lecture/Lab	
Total weekly contact hours	6	Total weekly contact hours	4
Total credits	4	Total credits	4
Reason for change:	To align with the other courses in computer science. After discussion with CS faculty, this class does not need a lab component.		

LEARNING OUTCOMES: Are learning outcomes affected by this change. If you are adding or removing credits, then it is expected there will be a change in the outcomes.

☐ Yes ☒ No	If yes, then revise the course learning outcomes by completing a course revision form found on the curriculum website.

IMPACT ON DEGREE AND CERTIFICATES: Are there degrees or certificates affected by this change?

☐ Yes ☒ No	If yes, complete a degree/certificate change form located on the curriculum website.

IMPACT ON OTHER DEPARTMENTS: Are there changes that will impact other departments? Are there degrees or certificates that require this course as part of their program or as a prerequisite?

☐ Yes ☒ No	If yes, please explain and describe how the impact was resolved	

Have you consulted with department chairs from other disciplines regarding potential course duplication, impact on enrollment or content overlap?

☐ Yes ☒ No	If yes, please describe	

Implementation term	☒ Next available term after approval ☐ Specific term (if after next available term):

SECTION #2 DEPARTMENT REVIEW		
"I vouch that this submission has been reviewed by the affiliated department chair and department dean and that they have given initial authorization for this submission. I am requesting that it be placed on the next Curriculum Committee agenda with available time slots. I understand that I am required to complete and submit, prior to the day my submission is reviewed by the Curriculum Committee, a Course Signature Form signed by the department chair and dean."		
Submitter	Email	Date
Pam Morse	pmorse@cgcc.edu	11/27/19
Department Chair (enter name of department chair): Pam Morse		
Department Dean (enter name of department dean): Stephen Shwiff		

NEXT STEPS:

1. Save this document as ContHrChg.course prefix and course number (e.g. ContHrChg.HST 204). Send completed form electronically to curriculum@cgcc.edu or slewis@cgcc.edu.
2. Refer to the curriculum office website for the Curriculum Committee meeting schedule and submission deadlines. You are encouraged to send submissions prior to the deadline so that the curriculum office may review and provide feedback.
3. Course submissions will be placed on the next agenda with available time slots. You will be notified of your submission's time for review, and you will be sent a signature page that may be completed electronically or manually by your department chair and department director. It is the submitter's responsibility to ensure that completed signature pages are delivered to the Curriculum Office the day before the Curriculum Committee meeting for which the submission is scheduled. Submissions without signed signature pages will be postponed.
4. It is not mandatory that you attend the Curriculum Committee meeting in which your submission is scheduled for review; however, it is strongly encouraged that you attend so that you may represent your submission and respond to any committee questions. Unanswered questions may result in a submission being rescheduled for further clarification.

CC date _____
CC decision _____
CC vote _____

Columbia Gorge Community College

Course Revision

(Double click on check boxes to activate dialog box)

What are you seeking to revise? Check all that apply	
☐ Course number	☒ Requisites
☐ Title	☐ Outcomes
☒ Description	☐ Repeatability

SECTION #1 GENERAL INFORMATION & REVISIONS			
Department	CTE	Submitter name Phone Email	Mike Davis mdavis@cgcc.edu
Current prefix and number	UAS 102	Proposed prefix and number	
Current course title	sUAS Aerial Photogrammetry	Proposed title (60 characters max)	
Current Repeatability	0	Proposed Repeatability	
Current transcript title (30 characters max)	sUAS Aerial Photogrammetry	Proposed transcript title (30 characters max)	
Reason for above proposed changes	No changes		

COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin each sentence of the course description with an active verb. Avoid using the phrases: "This course will …" and/or "Students will …" Include course requisites in the description. Guidelines for writing concise descriptions can be found at Writing Course Descriptions.

Current Description (required whether being revised or not)	Proposed Description
Introduces the fundamentals of photogrammetry with sUAS (drones), including concepts, real-world examples, navigation, best practices, data acquisition, mission assessment, data processing and map delivery. Recommended: COMM 111. Prerequisites: UAS 101, MTH 95 or higher or equivalent placement test scores. Audit available.	Introduces the fundamentals of photogrammetry with sUAS (drones), including concepts, real-world examples, navigation, best practices, data acquisition, mission assessment, data processing and map delivery. Recommended: COMM 111. Prerequisites: UAS 101. Audit available.

Reason for description change	To update requisite information.

REQUISITES: Note: If this course has been approved for the Gen Ed list, it will have, as a default the following requisites: "Prerequisite: MTH 20 or equivalent placement test scores. Prerequisite/concurrent: WR 121." If the department wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to submit the Opt-out of Standard Prerequisites Request form.			
Current prerequisites, corequisites and concurrent (if no change, leave blank)			
☐ Standard requisites - Prerequisite: MTH 20 or equivalent placement test scores. Prerequisite/concurrent: WR 121			
☐ Placement into:			
prefix & number: UAS 101	☒ Prerequisite	☐ Corequisite	☐ pre/con
prefix & number: MTH 95	☒ Prerequisite	☐ Corequisite	☐ pre/con
Proposed prerequisites, corequisites and concurrent			
☐ Standard requisites - Prerequisite: MTH 20 or equivalent placement test scores. Prerequisite/concurrent: WR 121			
☐ Placement into:			
prefix & number: UAS 101	☒ Prerequisite	☐ Corequisite	☐ pre/con
prefix & number:	☐ Prerequisite	☐ Corequisite	☐ pre/con
Reason for requisite changes	Math 95 is not required in order for a student to be successful in UAS 102.		

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Outcomes must be measurable through the application of direct and/or indirect assessment strategies. Three to six outcomes are recommended. Start each outcome with an active verb, completing the sentence starter provided. (See Writing Learning Outcomes on the curriculum website.) *****NOTE: Gen Ed Courses revising outcomes are required to submit a new Gen Ed Request form. A new Cultural Literacy Request form will also be required of any course with a Cultural Literacy designation.*****	
Current learning outcomes (required whether being revised or not)	New learning outcomes
Upon successful completion of this course, students will be able to: 1. Determine the capabilities and limitations of photogrammetry. 2. Read and interpret the photogrammetric data workflow. 3. Prepare a sUAS mission and demonstrate data acquisition. 4. Apply knowledge and demonstrate understanding of point cloud data and analysis. 5. Apply data processing best practices using industry software. 6. Design and present commercial grade map product. 7. Sit for the Pix4D Certification Exam. 8. Sit for the TOP Level 2 Certification Exam.	Upon successful completion of this course, students will be able to:
Reason for outcomes change	No changes

Course Content – organized by outcomes (list each outcome followed by an outline of the related content):	(required if revising outcomes)
Suggested Texts & Materials updates (specify if any texts or materials are required):	(update as needed)

Is this course used for related instruction?	☐ Yes ☒ No
If yes, then check to see if the hours of student learning should be amended in the related instruction template to reflect the revision. This may require a related instruction curriculum revision.	

SECTION #2 IMPACT ON OTHER DEPARTMENTS	
Are there changes being requested that may impact other departments, such as academic programs that require this course as a prerequisite for courses, degrees, or certificates?	☐ Yes ☒ No
Please provide details, who was contacted and the resolution.	
Implementation term	☒ Next available term after approval ☐ Specify term (if AFTER the next available term)
Allow 2-6 months to complete the approval process before scheduling the course.	

SECTION #3 DEPARTMENT REVIEW

"I vouch that this submission has been reviewed by the affiliated department chair and department dean and that they have given initial authorization for this submission. I am requesting that it be placed on the next Curriculum Committee agenda with available time slots. I understand that I am required to complete and submit, prior to the day my submission is reviewed by the Curriculum Committee, a Course Signature Form signed by the department chair and dean."

Submitter	Email	Date
Mike Davis	mdavis@cgcc.edu	01/06/2020
Department Chair (enter name of department chair): Jim Pytel and Ashley Mickels		
Department Dean (enter name of department dean): Mary Kramer		

NEXT STEPS:

1. Save this document as the course prefix and number (e.g. MTH 65 or HST 104). Send completed form electronically to curriculum@cgcc.edu or slewis@cgcc.edu.
2. Refer to the curriculum office website for the Curriculum Committee meeting schedule and submission deadlines. You are encouraged to send submissions prior to the deadline so that the curriculum office may review and provide feedback.
3. Course submissions will be placed on the next agenda with available time slots. You will be notified of your submission's time for review, and you will be sent a signature page that may be completed electronically or manually by your department chair and department dean. It is the submitter's responsibility to ensure that

CC date _____
CC decision _____
CC vote _____

Columbia Gorge Community College

Course Revision

(Double click on check boxes to activate dialog box)

What are you seeking to revise? Check all that apply	
☐ Course number	☒ Requisites
☐ Title	☐ Outcomes
☒ Description	☐ Repeatability

SECTION #1 GENERAL INFORMATION & REVISIONS			
Department	CTE	Submitter name Phone Email	Mike Davis mdavis@cgcc.edu
Current prefix and number	UAS 103	Proposed prefix and number	
Current course title	sUAS for Public Safety	Proposed title (60 characters max)	
Current Repeatability	0	Proposed Repeatability	
Current transcript title (30 characters max)	sUAS for Public Safety	Proposed transcript title (30 characters max)	
Reason for above proposed changes	No changes		

COURSE DESCRIPTION: To be used in the catalog and schedule of classes. Begin each sentence of the course description with an active verb. Avoid using the phrases: "This course will …" and/or "Students will …" Include course requisites in the description. Guidelines for writing concise descriptions can be found at Writing Course Descriptions.

Current Description (required whether being revised or not)	Proposed Description
Introduces the fundamentals in the use of sUAS to support public safety operations. Includes: search and rescue, law enforcement and fire operations. Integrates lectures, discussions and practical assignments facilitated by topical industry experts. Prepares individuals to handle infrared sUAV camera's and understand the practical application within each topic. Recommended: COMM 111. Prerequisites: UAS 102; TOP Level 2 Certification. Audit available.	Introduces the fundamentals in the use of sUAS to support public safety operations. Includes: search and rescue, law enforcement and fire operations. Integrates lectures, discussions and practical assignments facilitated by topical industry experts. Prepares individuals to handle infrared sUAV camera's and understand the practical application within each topic. Recommended: COMM 111. Prerequisites: UAS 101. Audit available.
Reason for description change	Prerequisite change

REQUISITES: Note: If this course has been approved for the Gen Ed list, it will have, as a default the following requisites: "Prerequisite: MTH 20 or equivalent placement test scores. Prerequisite/concurrent: WR 121." If the department wants to set the RD, WR and/or MTH prerequisites at a lower level, you will need to submit the Opt-out of Standard Prerequisites Request form.

Current prerequisites, corequisites and concurrent (if no change, leave blank)			
☐ Standard requisites - Prerequisite: MTH 20 or equivalent placement test scores. Prerequisite/concurrent: WR 121			
☐ Placement into:			
prefix & number: UAS 102, TOP Level 2 certification	☒ Prerequisite	☐ Corequisite	☐ pre/con
prefix & number: Recommended: COMM 111	☒ Prerequisite	☐ Corequisite	☐ pre/con
Proposed prerequisites, corequisites and concurrent			
☐ Standard requisites - Prerequisite: MTH 20 or equivalent placement test scores. Prerequisite/concurrent: WR 121			
☐ Placement into:			
prefix & number: UAS 101	☒ Prerequisite	☐ Corequisite	☐ pre/con
prefix & number: Recommended: COMM 111	☒ Prerequisite	☐ Corequisite	☐ pre/con

Reason for requisite changes	UAS 102 is not required for students to be successful in UAS 103. UAS 101 is sufficient introduction. The TOP level certifications would be optional. There has been interest by law enforcement and fire employees in UAS 103 and the department doesn't want to create barriers for them to enroll.

LEARNING OUTCOMES: Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Outcomes must be measurable through the application of direct and/or indirect assessment strategies. Three to six outcomes are recommended. Start each outcome with an active verb, completing the sentence starter provided. (See Writing Learning Outcomes on the curriculum website.)

*****NOTE: Gen Ed Courses revising outcomes are required to submit a new Gen Ed Request form. A new Cultural Literacy Request form will also be required of any course with a Cultural Literacy designation.*****

Current learning outcomes (required whether being revised or not)	New learning outcomes
Upon successful completion of this course, students will be able to: 1. Define infrared technology and demonstrate its use in a sUAV IR camera. 2. Apply thermal science and measurement technique. 3. Prepare a sUAS thermal mission and demonstrate data acquisition. 4. Apply an understanding of thermal data. 5. Prepare and demonstrate a search and rescue matrix. 6. Prepare and demonstrate a fire operation sUAS support method. 7. Prepare and demonstrate a law enforcement data acquisition operation. 8. Sit for the TOP Level 3 Certification Exam.	Upon successful completion of this course, students will be able to:

Reason for outcomes change	No changes
Course Content – organized by outcomes (list each outcome followed by an outline of the related content):	(required if revising outcomes)
Suggested Texts & Materials updates (specify if any texts or materials are required):	(update as needed)

Is this course used for related instruction?	☐ Yes ☒ No
If yes, then check to see if the hours of student learning should be amended in the related instruction template to reflect the revision. This may require a related instruction curriculum revision.	

SECTION #2 IMPACT ON OTHER DEPARTMENTS	
Are there changes being requested that may impact other departments, such as academic programs that require this course as a prerequisite for courses, degrees, or certificates?	☐ Yes ☒ No
Please provide details, who was contacted and the resolution.	
Implementation term	☒ Next available term after approval ☐ Specify term (if AFTER the next available term)
Allow 2-6 months to complete the approval process before scheduling the course.	

SECTION #3 DEPARTMENT REVIEW

"I vouch that this submission has been reviewed by the affiliated department chair and department dean and that they have given initial authorization for this submission. I am requesting that it be placed on the next Curriculum Committee agenda with available time slots. I understand that I am required to complete and submit, prior to the day my submission is reviewed by the Curriculum Committee, a Course Signature Form signed by the department chair and dean."

Submitter	Email	Date
Mike Davis	mdavis@cgcc.edu	01/06/2020
Department Chair (enter name of department chair): Jim Pytel and Ashley Mickels		
Department Dean (enter name of department dean): Mary Kramer		

NEXT STEPS:

1. Save this document as the course prefix and number (e.g. MTH 65 or HST 104). Send completed form electronically to curriculum@cgcc.edu or slewis@cgcc.edu.
2. Refer to the curriculum office website for the Curriculum Committee meeting schedule and submission deadlines. You are encouraged to send submissions prior to the deadline so that the curriculum office may review and provide feedback.

Columbia Gorge Community College

CC date	_____
CC decision	_____
CC vote	_____

CERTIFICATE REVISION

Submitted by: Mary Kramer	Email: mkramer@cgcc.edu	Phone: 541-506-6033	Department: CTE

(Double click on check boxes to activate dialog box)

SECTION #1 OVERVIEW			
Current Title:	Administrative Assistant Certificate	Proposed Title:	
Current Credits:	48	Proposed Credits:	
Overview and rationale for proposed changes:	Update program outcomes to include related instruction in the areas of human relations and computation.		
List of specific changes being proposed which may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, outcome changes, course changes etc. Use consistent words – Add, Remove, Increase, Decrease, Change	1. Update program outcomes to include human relations and computation. 2. 3.		
Is this a Related Certificate?	☒ Yes ☐ No	Is this a Career Pathway?	☐ Yes ☒ No
If yes, what is the base degree?	Administrative Assistant AAS		
Will the proposed changes affect the base degree or certificate?			☐ Yes ☒ No
If yes, how?			
Is this a statewide certificate?	☐ Yes ☒ No	If yes, have the changes been approved by the consortium?	☐ Yes ☐ No

Does the revision impact other areas of instruction?	☐ Yes ☒ No	Explanation of issues and how they are being resolved:	Has the revision been validated by the Advisory Committee?	☒ Yes ☐ No
If yes, have you talked with impacted departments and resolved any and all possible issues?	☐ Yes ☐ No		Date of Advisory Committee meeting:	10/26/19
Requested Implementation Term	Summer, 2020			

SECTION #2 REVISION AREAS	
Does the revision involve changing certificate requisites?	☐ Yes ☒ No

Note that degree/certificate/program entry prerequisites are only enforceable in limited entry programs. Program prerequisites for open entry programs only have meaning when they are representative of prerequisites associated to specific courses within the program. Prerequisites that students are not able to test out of using Next Gen Accuplacer result in hidden degree/certificate requirements and should be avoided. (Courses that may be tested out of using Next Gen Accuplacer include: RD 90, RD 115, WR 90, WR 115, MTH 20, MTH 60, MTH 65, MTH 95, MTH 98, MTH 105, MTH 111, MTH 112.)

CURRENT PREREQUISITES
(Required whether or not prerequisites are being changed.)

Course Number	Course Title or Placement level	Requisites (if any)	Credits
WR 115	Introductory to Expository Writing	Placement into WR 115	4
RD 115	Critical Reading	Placement into RD 115	4
MTH 20	Basic Math	Placement into MTH 20	4
CAS 121	Beginning Keyboarding	Placement into or keyboarding by touch	3

PROPOSED PREREQUISITES
(No change, leave blank.)

Course Number	Course Title or Placement level	Requisites (if any)	Credits

CERTIFICATE OUTCOMES All certificate outcomes will be reviewed by the committee regardless of whether or not outcomes have changed.	
Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Outcomes must be measurable through the application of direct and/or indirect assessment strategies. Three to six outcomes are recommended. Start each outcome with an active verb, completing the sentence starter provided. (See Writing Learning Outcomes on the curriculum website.)	
Does the revision involve changing certificate outcomes?	☒ Yes ☐ No
CURRENT CERTIFICATE OUTCOMES (Required whether or not outcomes are being changed.)	
Students who complete this certificate will be able to:	
1. Perform basic entry-level office work.	
2. Effectively use written, oral and visual communications skills.	
3. Use current and emerging technologies to solve workplace problems through presentation, research, analysis and synthesis.	
PROPOSED CERTIFICATE OUTCOMES	
Students who complete this certificate will be able to:	
1. Perform basic entry-level office work.	
2. Effectively use written, oral and visual communications skills.	
3. Use current and emerging technologies to solve workplace problems through presentation, research, analysis and synthesis.	
4. Demonstrate professional and friendly behavior in the workplace.	
5. Apply basic mathematical equations to relevant office tasks.	
RELATED INSTRUCTION	
Does the revision involve changing or adding Related Instruction?	☐ Yes ☒ No
If yes, complete the Related Instruction Template which may be found on the curriculum website.	
Additional Comments Or Changes	

SECTION #3 COURSE BY COURSE COMPARISON

List all courses (current AND proposed) in the term by term order that is to be displayed in the catalog certificate map. List course requisites under Course Title. Include elective list below.

If you are adding a course, place it in the preferred term, identify such a course with (add) and bold the text in the line.
If you want to rearrange the order of courses within the term-by-term sequence, do so on this form.
If you are removing a course, identify the course with (remove) and bold the text.
If the course title is changed, identify the course with (title change) and bold the text.
If the course credits have changed, identify the course with (increase or decrease credit) and bold the text.
If you need more lines to accommodate the courses, right click and insert rows.

The information you provide on this form will be reflected in the CGCC catalog pages. Please ensure it is correct.

Current Certificate Information			**Proposed Certificate Information**		
Course Number	**Course Title / Requisites**	**Credits**	**Course Number**	**Course Title / Requisites**	**Credits**
	Credit total			**Credit total**	

ELECTIVE LIST

Include all electives. Identify elective changes by stating if the elective is to be added or deleted and bold the text.
If you need more lines to accommodate the courses, right click and insert rows.

Current Electives			**Proposed Electives**		
Course Number	**Course Title / Requisites**	**Credits**	**Course Number**	**Course Title / Requisites**	**Credits**

SECTION #4 DEPARTMENT REVIEW

"I vouch that this submission has been reviewed by the affiliated department chair and department dean and that they have given initial authorization for this submission. I am requesting that it be placed on the next Curriculum Committee agenda with available time slots. I understand that I am required to complete and submit, prior to the day my submission is reviewed by the Curriculum Committee, a Degree or Certificate Signature Form signed by the department chair and dean."

Submitter	Email	Date
Mary Kramer	mkramer@cgcc.edu	1/6/2020
Department Chair (enter name of department chair): Ashley Mickels & Jim Pytel		
Department Dean (enter name of department dean): Mary Kramer		

CC date	_____
CC decision	_____
CC vote	_____

Columbia Gorge Community College

CERTIFICATE REVISION

Submitted by: Mary Kramer	Email: mkramer@cgcc.edu	Phone: 541-506-6033	Department: CTE

(Double click on check boxes to activate dialog box)

SECTION #1 OVERVIEW			
Current Title:	Manufacturing	Proposed Title:	
Current Credits:	13	Proposed Credits:	
Overview and rationale for proposed changes:	Add language to allow for math beyond the required MTH 98.		
List of specific changes being proposed which may include, addition or deletion of courses, title changes, credit changes, prerequisite changes, outcome changes, course changes etc. Use consistent words – Add, Remove, Increase, Decrease, Change	1. Add "or higher" language to MTH 98 requirement 2. 3.		
Is this a Related Certificate?	☐ Yes ☒ No	Is this a Career Pathway?	☐ Yes ☐ No
If yes, what is the base degree?			
Will the proposed changes affect the base degree or certificate?			☐ Yes ☐ No
If yes, how?			
Is this a statewide certificate?	☐ Yes ☒ No	If yes, have the changes been approved by the consortium?	☐ Yes ☐ No

Does the revision impact other areas of instruction?	☐ Yes ☒ No	Explanation of issues and how they are being resolved:	Has the revision been validated by the Advisory Committee?	☒ Yes ☐ No
If yes, have you talked with impacted departments and resolved any and all possible issues?	☐ Yes ☐ No		Date of Advisory Committee meeting:	10-30-2019
Requested Implementation Term	Summer, 2020			

SECTION #2 REVISION AREAS	
Does the revision involve changing certificate requisites?	☐ Yes ☒ No

Note that degree/certificate/program entry prerequisites are only enforceable in limited entry programs. Program prerequisites for open entry programs only have meaning when they are representative of prerequisites associated to specific courses within the program. Prerequisites that students are not able to test out of using Next Gen Accuplacer result in hidden degree/certificate requirements and should be avoided. (Courses that may be tested out of using Next Gen Accuplacer include: RD 90, RD 115, WR 90, WR 115, MTH 20, MTH 60, MTH 65, MTH 95, MTH 98, MTH 105, MTH 111, MTH 112.)

CURRENT PREREQUISITES
(Required whether or not prerequisites are being changed.)

Course Number	Course Title or Placement level	Requisites (if any)	Credits
MTH 20	Basic Math	Placement into MTH 20 and RD 90	4
RD 90	Transformative Reading	Placement into RD 90	3
WR 90	Introductory Writing	Placement into WR 90 and RD 90	3

PROPOSED PREREQUISITES
(No change, leave blank.)

Course Number	Course Title or Placement level	Requisites (if any)	Credits

CERTIFICATE OUTCOMES
All certificate outcomes will be reviewed by the committee regardless of whether or not outcomes have changed.

Describe what the student will be able to do "out there" (in their life roles as worker, family member, community citizen, global citizen or lifelong learners). Outcomes must be measurable through the application of direct and/or indirect assessment strategies. Three to six outcomes are recommended. Start each outcome with an active verb, completing the sentence starter provided. (See Writing Learning Outcomes on the curriculum website.)

Does the revision involve changing certificate outcomes?	☐ Yes ☒ No

CURRENT CERTIFICATE OUTCOMES
(Required whether or not outcomes are being changed.)

Students who complete this certificate will be able to:

1. Interpret technical drawings to determine product manufacturing specifications.
2. Apply safe practices in an industrial environment around machinery, power tools and chemicals.
3. Operate welding equipment and tools to produce products to required specifications.
4. Utilize computer software to produce blueprints and welding annotations.

PROPOSED CERTIFICATE OUTCOMES

Students who complete this certificate will be able to:

RELATED INSTRUCTION

Does the revision involve changing or adding Related Instruction?	☐ Yes ☒ No

If yes, complete the Related Instruction Template which may be found on the curriculum website.

Additional Comments Or Changes

SECTION #3 COURSE BY COURSE COMPARISON

List all courses (current AND proposed) in the term by term order that is to be displayed in the catalog certificate map. List course requisites under Course Title. Include elective list below.

If you are adding a course, place it in the preferred term, identify such a course with (add) and bold the text in the line.
If you want to rearrange the order of courses within the term-by-term sequence, do so on this form.
If you are removing a course, identify the course with (remove) and bold the text.
If the course title is changed, identify the course with (title change) and bold the text.
If the course credits have changed, identify the course with (increase or decrease credit) and bold the text.
If you need more lines to accommodate the courses, right click and insert rows.

The information you provide on this form will be reflected in the CGCC catalog pages. Please ensure it is correct.

Current Certificate Information			Proposed Certificate Information		
Course Number	**Course Title / Requisites**	**Credits**	**Course Number**	**Course Title / Requisites**	**Credits**
WLD 195	Welding Technology	3	WLD 195	Welding Technology	3
MTH 98	Quantitative Math	4	MTH 98	Quantitative Math **or higher (ADD)**	4

MFG 150	Manufacturing Processes	3	MFG 150	Manufacturing Processes	3
MFG 155	Blueprint Reading	3	MFG 155	Blueprint Reading	3
	Credit total			**Credit total**	

ELECTIVE LIST

Include all electives. Identify elective changes by stating if the elective is to be added or deleted and bold the text.
If you need more lines to accommodate the courses, right click and insert rows.

Current Electives			**Proposed Electives**		
Course Number	**Course Title / Requisites**	**Credits**	**Course Number**	**Course Title / Requisites**	**Credits**

SECTION #4 DEPARTMENT REVIEW

"I vouch that this submission has been reviewed by the affiliated department chair and department dean and that they have given initial authorization for this submission. I am requesting that it be placed on the next Curriculum Committee agenda with available time slots. I understand that I am required to complete and submit, prior to the day my submission is reviewed by the Curriculum Committee, a Degree or Certificate Signature Form signed by the department chair and dean."

Submitter	Email	Date
Mary Kramer	mkramer@cgcc.edu	1/10/2020
Department Chair (enter name of department chair): Jim Pytel & Ashley Mickels		
Department Dean (enter name of department dean): Mary Kramer		

Next steps:

1. Save the completed Certificate Revision Request Form and submit as an e-mail attachment to curriculum@cgcc.edu or slewis@cgcc.edu.
2. If needed, attach the completed Related Instruction Template to the same e-mail.
3. Refer to the curriculum office website for the Curriculum Committee meeting schedule and submission deadlines. You are encouraged to send submissions prior to the deadline so that the Curriculum Office may review and provide feedback.
4. Submissions will be placed on the next agenda with available time slots. You will be notified of your submission's time for review, and you will be sent a signature page that may be completed electronically or manually by your department chair and department dean. It is the submitter's responsibility to ensure that completed signature pages are delivered to the Curriculum Office the day before the Curriculum Committee meeting for which the submission is scheduled. Submissions without signed signature pages will be postponed.
5. It is required for a representative to attend the Curriculum Committee meeting in which your submission is scheduled for review. The representative will be asked to describe the proposal and respond to any committee questions. Unanswered questions may result in a submission being rescheduled for further clarification.

CC date _____
CC decision _____
CC vote _____

Columbia Gorge Community Colleg

General Education/Discipline Studies List Request Form

(Double click on check boxes to activate dialog box)

1. General & Course Information:			
Department	Social Science	Submitter Name: Phone: Email:	Courtney Cunningham ccunningham@cgcc.edu
Course Prefix and Number:	HEC 226	Course Title:	Child Development
Course Credits:	4	Gen Ed Category:	☐ Arts and Letters ☒ Social Science ☐ Science, Comp. Sci., and Math
Course Description:	Evaluates basic theories, research and principles of physical, cognitive, language, social and emotional development of children from the prenatal period through adolescence. Includes observation and classroom processes. Prerequisites: MTH 20 or equivalent placement test scores. Prerequisite/concurrent: WR 121. Audit available.		
Course Outcomes:	1. Assess and describe normal child growth and development from the prenatal period through adolescence using current research theories and principles. 2. Understand and apply the Domains of Development of children from prenatal to adolescence. 3. Recognize and evaluate social/culture environment and heredity influences on children's development. 4. Demonstrate professional values and responsibilities inherent in the field of early childhood education and family studies.		

Lower Division Collegiate (LDC) courses that apply for General Education/Discipline Studies status must:

1. **Be available to all CGCC students who meet the prerequisites for the course.**
2. **Ensure that the appropriate AAOT Discipline Studies outcomes and criteria are reflected in the course's outcomes.** (If you need to revise your course outcomes, you must complete a Course Revision form.)
3. **Verify course transfer status using the Course Transfer/Articulation Status form** (available on the curriculum website)**.** In order to obtain general education status, at least two OUS schools must confirm the course will transfer and one of the schools must approve the transfer as general education.
4. **Have the Standard Prerequisites unless the Department Chair has completed the Prerequisite Opt-Out form and that request is approved.**
5. **Be an LDC course that is eligible for the AAOT Discipline Studies List.**

In addition, course content must address the following:

1. **CGCC's General Education Philosophy Statement:** *Through a broad, well-balanced curriculum, the General Education program strives to instill a lifelong love of learning and to foster civic competence within our students.*
2. **CGCC Core Learning Outcomes (CLO):**
   Through their respective disciplines, CGCC students who earn a degree can:
   1. Communicate effectively using appropriate reading, writing, listening, and speaking skills. (*Communication*)
   2. Creatively solve problems by using relevant methods of research, personal reflection, reasoning, and evaluation of information. (*Critical Thinking and Problem-Solving*)
   3. Extract, interpret, evaluate, communicate, and apply quantitative information and methods to solve problems, evaluate claims, and support decisions in their academic, professional and private lives. (*Quantitative Literacy*)

4. Appreciate cultural diversity and constructively address issues that arise out of cultural differences in the workplace and community. (*Cultural Awareness*)
5. Recognize the consequences of human activity upon our social and natural world. (*Community and Environmental Responsibility*)

Course outcomes and content are required, at a minimum, to demonstrate that CLOs 1 (*Communication*) and 2 (*Critical Thinking and Problem Solving*) are addressed in depth, and 1 additional CLO is addressed at least minimally.

2. Address CGCC Core Learning Outcomes:	
For each CLO addressed, provide the following: 1) list the course outcome(s) that clearly reflects the CLO; and 2) describe relevant course content, outlining how students will gain the skills and knowledge needed to achieve a level of mastery of the CLO. Please check the appropriate box, "no changes" or "revised," noting whether your response has changed since your last Gen Ed Request submission. Include previous response even if you are not making any revisions.	
Gen Ed designated courses are required to address CLOs 1 and 2 "in-depth."	
1. Communicate effectively using appropriate reading, writing, listening, and speaking skills. (*Communication*) ☒ in-depth **REQUIRED**	☒ no changes ☐ revised **Course Outcomes**: 1. Assess and describe normal child growth and development from the prenatal period through adolescence using current research theories and principles. **Course Content**: Using content from the textbook, as well as provided websites and videos: • describe the major gross and fine motor milestones in child development from prenatal through adolescence • describe the cognitive, language, and social development of children o cite major theorists such as Piaget and Vygotsky, as well as identify different perspectives and their key characteristics, such as the core knowledge perspective, the information-processing perspective, and various theories of language development o explain the functions and development of emotion and emotional understanding, and the parents' role in this development • compare and contrast the roles of nature vs. nurture in the development of a child • discuss major contributing factors to the healthy development of a child from prenatal through adolescence • explain the challenges brought on by puberty and how best to overcome these challenges Student assessment takes place through writing assignments, PowerPoint presentations, online discussions, as well as quizzes and the midterm.
2. Creatively solve problems by using relevant methods of research, personal reflection, reasoning, and evaluation of information. (*Critical Thinking and Problem-Solving*) ☒ in-depth **REQUIRED**	☒ no changes ☐ revised **Course Outcomes**: 1. Assess and describe normal child growth and development from the prenatal period through adolescence using current research theories and principles. 2. Understand and apply the Domains of Development of children from prenatal to adolescence. **Course Content**: With support from the textbook, as well as websites and videos: • evaluate and discuss the physical, cognitive, and emotional/social

	development of children during various age periods • summarize differences in continuous and discontinuous development • explain the differences in development between boys and girls • discuss the development of sex differences, gender roles, and gender identity and evaluate factors that may contribute to gender stereotyping • link the role of nutrition to the healthy development of children from prenatal to adolescence • identify and explain the role of heredity in physical growth • explain the role of family in child development and reflect on how one's own family contributed to their development • compare and contrast societal norms related to sleeping and breastfeeding • describe and evaluate gains in children's perspectives of others' personalities and their understanding of ethnicity and social class • evaluate how major events in a child's life, such as divorce, abuse, death, etc. may contribute to their development across domains. Student assessment takes place through writing assignments, online discussions, as well as essay questions on the midterm.
Provide a response for each of the following three CLOs that your course addresses. Gen Ed designated courses are required, at a minimum, to address one of these three "minimally" or "in-depth."	
3. Extract, interpret, evaluate, communicate, and apply quantitative information and methods to solve problems, evaluate claims, and support decisions in their academic, professional and private lives. (*Quantitative Literacy*) ☐ in-depth ☐ minimally ☒ not addressed significantly	☐ no changes ☒ revised Changed from "in-depth" to "not addressed significantly"
4. Appreciate cultural diversity and constructively address issues that arise out of cultural differences in the workplace and community. (*Cultural Awareness*) ☐ in-depth ☒ minimally ☐ not addressed significantly	☐ no changes ☒ revised (Change from "not addressed significantly" to "minimally") **Course Outcomes**: 3. Recognize and evaluate social/culture environment and heredity influences on children's development. **Course Content**: Based on content from the textbook • identify and discuss how the following shape the development of children: o large vs. small families o gay and lesbian families o divorce o blended families o family lifestyles and traditions • reflect on how one's own culture plays a role in their development • identify the role that culture plays in the development of boys vs. girls • indicate how identity status, including identity achievement, identity diffusion, identity foreclosure, and identity moratorium, plays a role in adolescent development

	Student assessment takes place as an integrated portion of a writing assignment, in online discussions, as well as quizzes.
5. Recognize the consequences of human activity upon our social and natural world. (*Community and Environmental Responsibility*) ☐ in-depth ☐ minimally ☒ not addressed significantly	☐ no changes ☒ revised Change from “minimally” to “not addressed significantly”

Section # 4 Department Review		
This proposal has been reviewed at the Director level and approved for submission.		
Department Chair	Email	Date
Zip Krummel	zkrummel@cgcc.edu	2/1/20
Department Director	Email	Date
Stephen Shwiff	sshwiff@cgcc.edu	2/1/20

NEXT STEPS:

1. Save this document as the course prefix and course number.gened (e.g. HST 104.gened). Send completed form electronically to curriculum@cgcc.edu.
2. Complete the Course Signature form found in Forms on the curriculum website. Obtain required electronic or inked signatures and deliver to curriculum office by posted deadline. Refer to the curriculum office website for the Curriculum Committee meeting schedule and submission deadlines. You are encouraged to send submissions prior to the deadline so that the curriculum office may review and provide feedback.
3. Submission will be placed on the next agenda with available time slots. You will be notified of your submission’s time for review. It is not mandatory that you attend the Curriculum Committee meeting in which your submission is scheduled for review; however, it is strongly encouraged that you attend so that you may represent your submission and respond to any committee questions. Unanswered questions may result in a submission being rescheduled for further clarification.

October 10, 2019

Proposal to revise Communication requirement for AAOT, ASOT-BUS, ASOT-CS, and AS degrees by increasing the number of course options available to students.

A recent review of Communication requirements across Oregon community colleges revealed that most colleges offer students multiple options to fulfill their Communication requirements for their AAOT, ASOT-BUS, ASOT-CS, and AS degrees. CGCC has historically required only one course, COMM 111 Public Speaking. On October 9, the following people met to examine this matter in more detail and discuss possible changes to the requirements:

Lori Ufford, VP Instructional Services
Stephen Shwiff, Dean of General Education
Leigh Hancock, Department Chair WLFLC
Diane Uto, Communication Studies Instructor
Susan Lewis, Curriculum Director

This group agreed and is formally proposing that four of the existing CGCC Communication courses be listed as options for students in meeting AAOT, ASOT-BUS, ASOT-CS, and AS Communication requirements. These four courses are:

COMM 111 Public Speaking
COMM 140 Intercultural Communication
COMM 214 Interpersonal Communication
COMM 215 Small Group Communication.

Additional Communication courses (COMM 237 Gender and Communication, COMM 228 Mass Communication and Society) will remain as electives. Both COMM 237 and COMM 140 meet the cultural literacy requirement for transfer degrees. The possibility of a concentration award in Communication may be explored at a future date.

The rationale for this proposed change is based in the need to ensure our offerings meet the varying environments, specializations, and cultural experiences our students may encounter in their professional and personal lives. Public speaking prepares students for oral presentations and organization of information; intercultural communication addresses issues common in diverse settings; interpersonal communication strengthens an individual's skills when communicating one on one; and small group teaches how to effectively work together to accomplish goals. These four options provide students with the opportunity to choose the communication content that best fits their interests, needs and specializations.

This change allows a broader selection of courses for students and benefits the college through expanded enrollment across all communication courses. Additionally, this change increases the college's competitiveness by aligning with others in the state system.

If this proposal is approved, it is expected the new options will be available to students immediately. No impact on the budget is expected.

Proposal to revise Communication requirement for AAOT, ASOT-BUS, ASOT-CS, and AS degrees by increasing the number of course options available to students.

_____ ( ) RECOMMENDED ( ) NOT RECOMMENDED**
LEIGH HANCOCK – WRITING, LITERATURE & FOREIGN LANGUAGES DEPARTMENT CHAIR

_____ ( ) RECOMMENDED ( ) NOT RECOMMENDED**
ROBERT KOVACICH – SCIENCE DEPARTMENT CHAIR

_____ ( ) RECOMMENDED ( ) NOT RECOMMENDED**
PAM MORSE – MATH DEPARTMENT CHAIR

_____ ( ) RECOMMENDED ( ) NOT RECOMMENDED**
ELIZABETH ANDERSON – ARTS AND HUMANITIES DEPARTMENT CHAIR

_____ ( ) RECOMMENDED ( ) NOT RECOMMENDED**
ZIP KRUMMEL – SOCIAL SCIENCES DEPARTMENT CHAIR

_____ ( ) RECOMMENDED ( ) NOT RECOMMENDED**
STEPHEN SHWIFF – DEAN OF GENERAL EDUCATION & TRANSFER

_____ ( ) RECOMMENDED ( ) NOT RECOMMENDED**
MARY KRAMER – DEAN OF CAREER & TECHNICAL & PRE-COLLEGE

_____ ( ) RECOMMENDED ( ) NOT RECOMMENDED**
LORIE SAITO – DEAN OF NURSING AND HEALTH OCCUPATIONS

(Curriculum Office will obtain the signatures listed below this line)

_____ ( ) RECOMMENDED ( ) NOT RECOMMENDED**
CURRICULUM COMMITTEE CHAIR (signature indicates full CC approval)

_____
DATE

_____( ) RECOMMENDED ( ) NOT RECOMMENDED**

VP INSTRUCTIONAL SERVICES

_____

DATE

**Indicate Reason(s):

Related Instruction – Standalone Options

Communication

- BA 205 Business Communication (4 cr)
- CAS 105 Writing for the Web (3 cr)
- CHN 101 First Year Chinese (5 cr)
- CHN 102 First Year Chinese (5 cr)
- CHN 103 First Year Chinese (5 cr)
- COMM 111 Public Speaking (4 cr)
- COMM 130 Business and Professional Speech Communication (4 cr)
- COMM 140 Introduction to Intercultural Communication (4 cr)
- COMM 214 Interpersonal Communication: Process and Theory (4 cr)
- COMM 215 Small Group Communication: Process and Theory (4 cr)
- COMM 228 Mass Communication and Society (4 cr)
- COMM 237 Gender and Communication (4 cr)
- OS 220 Business Editing (4 cr)
- SPA 101 First Year Spanish – First Term (4 cr)
- SPA 102 First Year Spanish – Second Term (4 cr)
- SPA 103 First Year Spanish – Third Term (4 cr)
- SPA 201 Second Year Spanish – First Term (4 cr)
- SPA 202 Second Year Spanish – Second Term (4 cr)
- SPA 203 Second Year Spanish – Third Term (4 cr)
- WR 115 Introduction to Expository Writing (4 cr)
- WR 121 English Composition (4 cr)
- WR 122 English Composition (4 cr)
- WR 227 Technical and Professional Writing (4 cr)
- WR 241 Creative Writing – Fiction (4 cr)
- WR 242 Creative Writing – Poetry (4 cr)
- WR 243 Creative Writing – Script Writing (4 cr)
- WR 244 Advanced Creative Writing – Fiction (4 cr)
- WR 245 Advanced Creative Writing – Poetry (4 cr)
- WR 246 Advanced Creative Writing – Editing and Publishing (4 cr)
- WR 247 Advanced Creative Writing – Scriptwriting (4 cr)

Math

- BA 104 Applied Business Math (4 cr)
- BA 111 Introduction to Accounting (3 cr)
- BA 177 Payroll Accounting (3 cr)
- BA 211 Principles of Accounting I (3 cr)
- BA 212 Principles of Accounting II (3 cr)
- BA 213 Managerial Accounting III (4 cr)
- BA 222 Financial Management (3 cr)

- MTH 105 Math in Society (4 cr)
- MTH 111 College Algebra (5 cr)
- MTH 112 Elementary Functions (5 cr)
- MTH 243 Statistics I (5 cr)
- MTH 244 Statistics II (5 cr)
- MTH 251 Calculus I (5 cr)
- MTH 252 Calculus II (5 cr)
- MTH 253 Calculus III (5 cr)
- Science courses???

Human Relations

- ATH 103 Introduction to Cultural Anthropology (4 cr)
- BA 208 Business Ethics (4 cr)
- BA 285 Human Relations in Organizations (3 cr)
- ED 219 Civil Rights & Multicultural Issues in Educational Settings (3 cr)
- HEC 201 Family Partnerships in Education (3 cr)
- PS 211 Peace and Conflict (4 cr)
- PSY 101 Psychology and Human Relations (4 cr)
- PSY216 Social Psychology (4 cr)
- SOC 204 Sociology in Everyday Life (4 cr)
- SOC 206 Social Problems (4 cr)
- Philosophy courses???
- Women's Studies courses???

Highlighted courses are currently used for RI.

Procedure Number/Name:	040.???.??? – Related Instruction
Associated Rule Number/ Name:	040.???.??? – Related Instruction
Responsible Department:	Instructional Services

Overview

The required inclusion of Related Instruction (RI) in Associate of Applied Science (AAS) degrees and certificates of 45 credits or more is verified and approved in accordance with established procedures set forth by the Curriculum Committee and the vice president of Instructional Services. The process is facilitated by the Curriculum Office.

Areas of Responsibility

Faculty, Instructional Deans, Department Chairs, Curriculum Committee, Vice President of Instructional Services, Curriculum Office

Operating Procedure Details

Inclusion of Related Instruction in degrees and certificates

AAS degrees will include a minimum of 16 credits of General Education including courses that address the RI areas of communication, computation, and human relations. Approval process for new or revised AAS degrees will follow the procedures laid out in OP 040.009.000 Curriculum Development and Approval.

Certificates of 45 credits or more will include in their new or revised certificate requests documentation on how the required hours of RI are addressed. Certificate submissions will be accompanied by a Related Instruction Template (see Curriculum Office Forms webpage for blank template) that includes the number of hours of student learning for each area of RI and a confirmation that instructor qualifications have been developed and approved for the teaching of any embedded RI. Certificates submissions without the required accompanying RI documentation will not be placed on the Curriculum Committee agenda nor proceed in the certificate approval process.

> For certificates of 45 to 60 credits: 240 hours (the equivalent of 8 credits) of related instruction with representation in three program-related instructional areas, 1) communication, 2) computation, and 3) human relations. A minimum of 48 hours (20% of the minimum total) of student learning is required in each area; 96 hours are at the department's discretion.

For certificates of 61 to 108 credits: 480 hours (the equivalent of 16 credits) of related instruction with representation in three program-related instructional areas, 1) communication, 2) computation, and 3) human relations. A minimum of 96 hours (20% of the minimum total) of student learning are required in each area; 192 hours are at the department's discretion.

Identifying Related Instruction in courses

The RI requirement in certificates may be fulfilled using stand-alone courses, courses in the program containing embedded instruction (both described below), or a combination of the two. However, departments are strongly encouraged to use stand-alone courses whenever possible.

Stand-alone course(s) option: Uses existing credit courses (must be 100 level or above) that address 1) communication, 2) computation, or 3) human relations. Sources for this option are a college-level course (CTE or LDC) in any discipline that provides instruction that would be relevant to the discipline in question and clearly addresses one (and only one) of the three RI areas. (Courses that address more than one area are considered to have embedded RI, as described below). Stand-alone courses used for RI must be identified and the hours included on the Related Instruction Template (see Curriculum Office Forms page for blank template).

The Curriculum Committee identifies courses that fulfill stand-alone requirements for each of the three areas of Related Instruction. The list of courses can be found on the Curriculum Office website.

Embedded instruction option: Embedded instruction occurs simultaneously with program content instruction. Embedded instruction content and hours must be reflected in each course's Course Content and Outcome Guide. More than one of the three areas can be embedded in a single course.

Departments may identify embedded instruction hours that apply to their CTE courses only. An Embedded Related Instruction form must be completed for each course being proposed for embedded RI and submitted to the Curriculum Office for review and approval by the Curriculum Committee and the vice president of Instructional Services. Documentation of the following is required:

- A course outcome that is associated with the RI area
- Course content (activities, skills, concepts, etc.) showing how the RI area is addressed in the course: providing details and including specific number RI hours for each activity (See Credit and Contact Hour Requirements below*)

- Qualifications instructors must have to teach each RI area identified for the course. (Departments develop the specific requirements that pertain to teaching embedded RI in their courses and recommend these for administrative approval by the department dean and vice president of Instructional Services.)

* Credit and Contact Hour Requirements for Related Instruction:

In order to facilitate identification and recording, related instruction is counted in hours of student learning rather than credits. A credit is considered to represent 30 hours of student learning (instruction supported by study and practice). Student learning includes both direct instruction and class work such as study or practice. For every hour of lecture, it is expected that students will spend 2 hours in study outside of class time; so a 1-credit lecture class meets for 10 hours (minimum) and includes 20 hours additional learning time outside of class. Over the course of a 10-week term that would be equivalent to 30 hours. The distribution of class vs. out-of-class time is different for the lab and lecture-lab configurations. The conventions used at CGCC are as follows:

- 1 cr lecture meets 1 hr /wk, plus 2 hrs/wk of study, for at least 10 weeks = 30 hours
- 1 cr lec-lab meets 2 hrs/wk, plus 1 hr/wk of study, for at least 10 weeks = 30 hours
- 1 cr lab meets 3 hrs/wk, with minimal outside study, for at least 10 weeks = 30 hours

Once Related Instruction is approved by the Curriculum Committee and the vice president of instruction, degrees and certificates will proceed according to internal and external curriculum development and approval procedures.

Definitions

1. *Curriculum*: All courses offered and their content; a prescribed set of courses leading to a specific outcome, which may include the completion of a degree, certificate, or program.

Further Information

Director of Curriculum, Assessment, Strategic Planning & Accreditation
slewis@cgcc.edu
541-506-6047

References

1. CGCC Administrative Rule 040.009.000 – Curriculum Development and Approval
2. Oregon Administrative Rule 589-006 – Community College Course Approval
3. Community College and Workforce Development Community College Handbook – Related Instruction definition

Forms

1. Curriculum submission forms – CGCC Curriculum Office Forms website