Curriculum Committee Agenda

December 6, 2019 (8-9:30am, CC127)

	Presenter	Action
1. Welcome and Introductions	**Chair**	
2. Approval of Minutes	**Chair**	Approval
3. Consent Agenda a. Course Number Change b. Course Title Change c. Reviewed Outlines for Approval	**Chair**	Approval
4. Informational Items a. Catalog Deadline b. Math Course Numbering	**Dru Urbassik** **Scot Pruyn**	Informational Informational
5. Old Business a. Gen Ed Courses that Need Review	**Committee**	Discussion

6. New Business
a. **Related Instruction**
   i. Computation: MTH-082E, MTH-095
   ii. HR: CJA-250, COMM-126, PSY-101
   iii. PE/Health: HE-201, HE-202, HE-207
 	
b. **Course Hours, Instructional Method, Credits Change**
   i. ECE-139, 142, 143, 144, 241
   ii. EET-112, 127, 215, 254, 257
   iii. FRP-294
   iv. PH-150
c. **New Courses**
   i. EET-113, 114, 225, 235
   ii. FST-202, 204, 206, 212, 214, 216
d. **Program Amendments**
   i. Accounting Clerk CC
 	
   ii. Industrial Maintenance Technology AAS
   iii. Renewable Energy Technology AAS
 	
   iv. AS, Electrical Engineering, OIT
   v. Electronics Engineering Technology AAS
   vi. Electronics Engineering Technology CC
   vii. Microelectronics Systems Technology AAS
   viii. Microelectronics Systems Technology CC
 	
e. **COMM-112 adjustment in AAOT, ASOT-Business, ASOT-CS**
	RI Sub-Comm
	
	Megan Feagles
	Mike Farrell
	Shalee Hodgson
	Greg Bostrom
	
	Mike Farrell
	Shalee Hodgson
	
	Joan San-Claire
	
	Megan Feagles
	
	Mike Farrell
	
	Alice Lewis
		Approval
		
		Approval/20.WI
		Approval/20.SU
		Approval/20.WI
		Approval/20.WI
		
		Approval/20.WI
		Approval/20.WI
		
		Approval/20.SU
		
		Approval/20.SU
		
		Approval/20.SU
		
		Discussion

7. Closing Comments		

Present: Japheth Fuentes (ASG), Dustin Bare, Jeff Ennenga, Megan Feagles (Recorder), Eden Francis, Kara Leonard, Alice Lewis, Mike Mattson, Tracy Nelson, Scot Pruyn (Chair), Lisa Reynolds, Cynthia Risan, Esther Sexton, Sarah Steidl, Dru Urbassik, Helen Wand
Guests: Marilyn Braught
Absent: Karen Ash, Nora Brodnicki, Rick Carino, Elizabeth Carney, Frank Corona, Ida Flippo, Darlene Geiger, Sue Goff, Shalee Hodgson, Jason Kovac, Jeff McAlpine (Alternate Chair), David Plotkin, Tara Sprehe, *Andrea Vergun

0. **Chair Nominations/Vote**
    a. Scot Pruyn accepted a nomination. Voting was done via email. Scot will be the Chair for 2 years, ending 2021/SP.
    b. The Committee agreed that Scot should still serve on the Review Team and Related Instruction Sub-Committee.
    MCF updated Curriculum Committee website, attendance sheet, membership document on 11/15/19

1. **Welcome & Introductions**

2. **Approval of Minutes**
    a. Approval of the November 1, 2019 minutes
    Motion to approve, approved

3. **Consent Agenda**
    a. Course Number Changes
    b. Course Title Change
    c. Reviewed Outlines for Approval
    d. There was discussion about BA-131's outcomes
        i. The outline has 17 outcomes. Some of them could potentially be objectives. Are they all assessable?
        ii. Lisa Reynolds will reach out to the course submitter and the course reviewer.
    Motion to approve, approved

4. **Informational Items**
    a. Catalog Edit Process
        i. Curriculum Office will upload Catalog Files to google. The files reflect all the changes that have been approved since the catalog was printed. Curriculum Office will send files to Department Chairs and Admins.
        ii. Departments will make changes, Curriculum Office will double check the changes are approved.
    b. Review Teams/Sub-Committee Process Sharing
        i. AFAC Review Team
            1. Scot Pruyn presented
            2. The Team uses google docs to track outlines.
            3. They review as a team
            4. Dru will send out the document that Scot presented
            MCF added the document in the Agenda Packet for this meeting and reposted it to the website on 11/15/19
        ii. Arts & Sciences Review Team
            1. Lisa Reynolds presented
            2. Lisa shares the list of outlines with the Review Team, and team members will either choose courses to review, or Lisa will assign courses to members.
            3. They try to talk with the submitter if the Library Resources box isn't checked.
            4. Transferability is important
            5. The Outline Submission System is clunky. It is known.
        iii. TAPS Review Team
            1. Mike Mattson presented

2. They have tried to split the outlines up, but it was hit or miss. Now they schedule meetings to look at them together.
3. Clarity, grammar, word choice are items of focus.
   iv. General Education Sub-Committee
   1. It was brought up that it is not widely known that Gen Ed certification is on hold for courses that are seeking new certification.
   2. Next time: discussion about what to do about backlog of courses that need Gen Ed review. Two categories: courses that are already Gen Ed, and courses that are seeking Gen Ed certification for the first time.
      MCF added to the 12/6/19 agenda on 11/15/19

5. **Old Business**
   a.

6. **New Business**
   a. Program Amendments
      i. Fitness Technology CC
      1. Tracy Nelson presented
      2. Removing HE-255 from electives because it is scheduled for inactivation on 6/30/2020.
      3. Grad Services requested that MTH-050 or higher be changed to MTH-050 or MTH-065 or higher. The department agreed that it was clearer to students.
         MCF changed the amendment and added the new version to the Agenda Packet on 11/15/19
      4. There was discussion about the renumbering of math courses so it's clearer to students which courses are higher than others. Bring back next time.
         MCF added to the 12/6/19 agenda on 11/15/19
   Motion to approve with changes, approved
      ii. Gerontology CC
      1. Megan Feagles presented on behalf of Yvonne Smith.
      2. Cynthia will reach out to Yvonne about the number of elective credits.
      3. Removing HS-130 from electives because it is scheduled for inactivation on 6/30/2020.
   Motion to approve, approved

7. **Closing Comments**
   a.

-Meeting Adjourned-

Next Meeting: December 6, 2019 CC127 8-9:30am

1. Course Title Change

Course	Current Title	Proposed Title

2. Course Subject Change

Course	Title	Proposed Course Subject
IMT-233	Programmable Logic Controllers I	EET-233
IMT-234	Programmable Logic Controllers II	EET-234

3. Outlines Reviewed for Approval

Course	Title	Implementation
BA-104	Business Math	
BA-205	Business Communications with Technology	
BI-212	General Biology for Science Majors (Animal	
BT-177	Microsoft Project	
CJA-280	Criminal Justice/Corrections/CWE	
CJA-281	Criminal Justice/Corrections/CWE	
CS-120	Survey of Computing	
DMC-221	Introduction to 2D Animation: Design &	
EET-137	Electrical Fundamentals I	
EET-139	Principles of Troubleshooting I	
EET-141	Electrical Fundamentals II	
EET-142	Electrical Fundamentals III	
EET-157	Digital Logic I	
EET-227	Semiconductor Circuits II	
EET-233	Programmable Logic Controllers I	
EET-234	Programmable Logic Controllers II	
EET-239	Principles of Troubleshooting II	
EET-250	Linear Circuits	2020/WI
EL-111	College Study Skills	
GEO-100	Introduction to Physical Geography	
GEO-110	Cultural & Human Geography	
GEO-130	Introduction to Environmental Geography	
GEO-208	Geography of the United States & Canada	
HE-163	Body & Drugs I: Introduction to Abuse &	
HE-164	Body & Drugs II: Alcohol	
IMT-223	Instrumentation & Controls	
LIB-101	Introduction to Library Research	
MTH-010	Fundamentals of Arithmetic	
MTH-020	Fundamentals of Arithmetic II	
MTH-065	Algebra II	
SPN-101	First-Year Spanish I	
SPN-102	First-Year Spanish II	
TA-195	Student Performance Showcase	
TA-295	Student Performance Showcase	

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Section #1 General Course Information

Department: Business & Computer Science: Business

Submitter

First Name: Joan
Last Name: San-Claire
Phone: 3013
Email: joan.san-claire

Course Prefix and Number: BA - 104

 # Credits: 3

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 33

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Business Math

Course Description:

Apply mathematics to a variety of transactions found in the business world, from finance to project management, and from sales to accounting, including: taxes, product or service mark-ups and mark-downs; simple and discounted interest; present and future value of a single sum of money and annuities; gains, losses, and valuations of stocks, bonds, mutual funds, and other investments; depreciation; inventory valuation; and financial ratio analysis. This course meets the Related Instruction Computation requirement.

Type of Course: Lower Division Collegiate

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Multiple Business AAS degrees and certificates

Are there prerequisites to this course?

Yes

Pre-reqs: MTH-020

Have you consulted with the appropriate chair if the pre-req is in another program?
Yes (A 'Yes' certifies you have talked with the chair and have received approval.)*

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

Yes

Area: Computation

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ **Summer**
✓ **Fall**
✓ **Winter**
✓ **Spring**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. demonstrate and apply basic business math and analysis skills, to include working with fractions, decimals, percentages, ratios, interest, and taxes;
2. process and interpret information to arrive at logical conclusions to common business math applications;
3. solve math problems that apply to a variety of business transactions, from the areas of finance to project management, sales to accounting, and more;
4. comprehend the important role math plays in the business world.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Review and Application of Math for Problem Solving (Fractions, Decimals, and Percentages, as applied to Business, Accounting and Retail)
2. Banking, Promissory Notes, Simple and Discounted Interest
3. Trade Discounts, Markups and Markdowns, Installment Sales
4. Payroll and Payroll Taxes
5. Present/Future value, Annuities and Sinking Funds
6. Basic Accounting and Financial Statement Concepts
7. Inventory Valuation Methods
8. Depreciation
9. Various Types of Taxes

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

Section #2 Course 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 currently requires us to certify that at least one OUS school will accept a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these 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?

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 OUS schools will the course transfer to? (Check all that apply)

✓ **PSU (Portland State University)**

✓ **OIT (Oregon Institute of Technology)**

✓ **OSU (Oregon State University)**

Identify comparable course(s) at OUS school(s)

How does it transfer? (Check all that apply)

✓ **general elective**
:

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: Business & Computer Science: Business

Submitter

First Name: Michael
Last Name: Moiso
Phone: 3770
Email: mikem

Course Prefix and Number: BA - 205

 # Credits: 4

Contact hours

Lecture (# of hours): 44
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 44

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Business Communications with Technology

Course Description:

Students practice critical skills for successful communication in a business environment by employing a structured writing process, analyzing audience needs, and identifying and using appropriate communication channels and modalities. Students also work individually to produce a PowerPoint presentation with embedded narration and as team members to manage a comprehensive project and complete a business research paper.

Type of Course: Lower Division Collegiate

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Business AAS & Certificates

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: BA-131 and WR-121

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ **Fall**
✓ **Winter**
✓ **Spring**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. produce business documents designed to persuade, to inform, or to deliver negative news; these messages will address the needs of an identified audience with coherence, conciseness, completeness and appropriate tone, formatting, and mechanics;
2. create professional quality documents that demonstrate layout principles and conventions appropriate to a given form (memo, letter, email, presentation, or report), employ software tools (e.g., Microsoft Word, Excel, PowerPoint) to deliver them;
3. prepare a business report that delivers information and/or recommends action by integrating data from written and online sources and by employing formatting, graphics, and spreadsheet tables and charts that illustrate and emphasize key data;
4. develop a team contract and work plan that capitalizes on individual work styles, strengths, and values, and facilitates effective team communication and conflict management during the process of managing the team project;
5. assemble, analyze, and synthesize research and employ a medium such as PowerPoint (including templates, graphics, tables and charts) to narrate and deliver a multimedia presentation;
6. analyze audience needs to choose the most effective message timing, tone, and channel (verbal or written) and modality (e.g., face-to-face verbal, written hard copy, or any of a range of electronic forms).

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Communication Theory & Strategies.
2. Peer Editing.
3. Basic & Advanced Writing Techniques.
4. Editing in Microsoft Word.
5. Routine Letters & Memos.
6. Request & Response Letters.
7. Negative Messages.
8. Persuasive Messages.
9. Informal Reports.
10. Charting with Microsoft Excel.
11. Formal Reports.
12. Business Presentations with PowerPoint.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

Section #2 Course Transferability

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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?

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 OUS schools will the course transfer to? (Check all that apply)

✓ **EOU (Eastern Oregon University)**   ✓ **PSU (Portland State University)**
✓ **OIT (Oregon Institute of Technology)** ✓ **SOU (Southern Oregon University)**
✓ **OSU (Oregon State University)**   ✓ **UO (University of Oregon)**
✓ **OSU-Cascade**   ✓ **WOU (Western Oregon University)**

Identify comparable course(s) at OUS school(s)

How does it transfer? (Check all that apply)

✓ **required or support for major**

✓ **general elective**
:

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: Sciences

Submitter

First Name: Tory
Last Name: Blackwell
Phone: 3646
Email: toryb

Course Prefix and Number: BI - 212

 # Credits: 5

Contact hours

Lecture (# of hours): 44
Lec/lab (# of hours):
Lab (# of hours):   33
Total course hours: 77

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: General Biology for Science Majors (Animal Biology)

Course Description:

This course is the second quarter of a three-quarter sequence of a laboratory course for science majors and pre-professional students. It emphasizes an evolutionary approach to animal biology; including animal diversity, development and the effects of Hox genes and hormones, comparisons of animal body systems including human, homeostasis and behavior.

Type of Course: Lower Division Collegiate

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

Yes

Check which General Education requirement:

✓ Science & Computer Science

Is this course part of an AAS or related certificate of completion?

No

Are there prerequisites to this course?

Yes

Pre-reqs: Prerequisite or Corequisite: CH-105 or CH-222

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Winter

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. demonstrate the ability to communicate and comprehend complex scientific principles and concepts important to an understanding of major topics in animal biology and their role in shaping current scientific knowledge; (WR1) (SP1) (SP2)
2. critically examine, evaluate and apply existing and alternative explanations to the key concepts of animal biology to everyday problems and the consequences for society; (SC1) (SC3) (CL1) (AL 2)
3. demonstrate an ability to identify scientific resources, gather scientific information, critically evaluate information resources, apply them to research, and generate further questions; (SC2)
4. display the use of laboratory equipment and electronic resources in the pursuit of scientific inquiry; (SC2)
5. critically analyze and apply scientific data, mathematics and technology to accurately analyze, interpret, validate and communicate solutions to solve scientific problems and test hypotheses; (SC1) (SC2) (MA 1) (MA2)
6. assess the strengths & weaknesses of evidence in support of specific case studies in animal biology that explore animal adaptations to their environments.(SC3)

COURSE OUTLINE MAPPING CHART

Mark outcomes addressed by the course:

- Mark "C" if this course completely addresses the outcome. Students who successfully complete this course are likely to have attained this learning outcome.
- Mark "S" if this course substantially addresses the outcome. More than one course is required for the outcome to be completely addressed. Students who successfully complete all of the required courses are likely to have attained this learning outcome.
- Mark "P" if this course partially addresses the outcome. Students will have been exposed to the outcome as part of the class, but the class is not a primary means for attaining the outcome and assessment for general education purposes may not be necessary.

As a result of completing the AAOT/ASOT general education requirements, students will be able to:

WR: Writing Outcomes

P   1. Read actively, think critically, and write purposefully and capably for academic and, in some cases, professional audiences.

P   2. Locate, evaluate, and ethically utilize information to communicate effectively.

       3. Demonstrate appropriate reasoning in response to complex issues.

SP: Speech/Oral Communication Outcomes

P   1. Engage in ethical communication processes that accomplish goals.

P   2. Respond to the needs of diverse audiences and contexts.

       3. Build and manage relationships.

MA: Mathematics Outcomes:

P   1. Use appropriate mathematics to solve problems.

P   2. 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.

AL: Arts and Letters Outcomes

       1. Interpret and engage in the Arts & Letters, making use of the creative process to enrich the quality of life.

P   2. Critically analyze values and ethics within range of human experience and expression to engage more fully in local and global issues.

SS: Social Science Outcomes

       1. Apply analytical skills to social phenomena in order to understand human behavior.

       2. Apply knowledge and experience to foster personal growth and better appreciate the diverse social world in which we live.

SC: Science or Computer Science Outcomes

S   1. Gather, comprehend, and communicate scientific and technical information in order to explore ideas, models, and solutions and generate further questions.

S   2. Apply scientific and technical modes of inquiry, individually, and collaboratively, to critically examine the influence of scientific and technical knowledge on human society and the environment.

S   3. Assess the strengths and weaknesses of scientific studies and critically examine the influence of scientific and technical knowledge on human society and the environment.

CL: Cultural Literacy Outcome

P   1. Identify and analyze complex practices, values, and beliefs and the culturally and historically defined meanings of difference.

Outcomes Assessment Strategies:

✓ **General Examination**   ✓ **Projects**
                                    ✓ **Writing Assignments**
✓ **Presentations**
✓ **Thesis/Research Project**   ✓ **Multiple Choice Test**

✓ **Rubrics**

:

Major Topic Outline:

1. Development, animal form and function.
a. Fate of cells, the unifying processes, and the variability that is seen in development.
b. Key principles of multi-cellularity, including cell shape and size in relation to surface area to volume ratios.
c. Cellular communication within a multicellular organism.
d. Stem cells and differentiation in embryonic development, the formation and function of animal tissues including the roles of Hox genes.
e. Unity and diversity among animal tissues and organ systems.
2. Homeostasis and chemical control of the animal body.
a. How animals maintain homeostasis using feedback loops, surface area to volume ratios and environmental relationships.
b. Endocrine system, where it is located, the general role of hormones and how chemical signals coordinate cellular activity and homeostasis in the animal body.
3. Function of electrical signals in animals.
a. The components of the nervous system, including a survey of the variation in animals.
b. The action potential and the movement of ions in the formation.
c. How an impulse passes from one neuron to the next across synaptic gaps using neurotransmitter chemicals.

d. The role of neurotransmitters in the body and the effects of drugs and toxins on them.
4. The vertebrate nervous system, the senses and how they interact with sensory and movement.
a. The relationships of structure and function of the nervous system, including the central nervous system, the peripheral nervous system and the autonomic nervous system.
b. Examine how the sensory organs convey information to the brain and how this information is processed.
c. How sensations are processed, formation of memories and the research into diseases.
d. An analysis and comparison of reflexes and reactions in response to environmental changes.
e. How muscles and bones interact to cause movement in response to sensory stimuli.
5. Acquiring nutrients and gases from the environment and transporting them to the cells of the animal body.
a. Types of animal digestive tracts, the nutritional needs of animals and how they acquire what their bodies need, including digestion, absorption, assimilation and the interaction of the nervous and endocrine systems.
b. Adaptations for efficiencies in digestion, absorption and assimilation of nutrients.
c. Types of animal circulatory systems, the relationship of the blood, tissue fluid and cytoplasm in delivering nutrients and gases to the cells and disposing of cellular wastes.
d. Animal respiratory systems, the function of gas exchange, requirements for organismic respiration, and the homeostatic control of respiratory rate.
6. Various ways animals produce ATP energy.
a. Aerobic and anaerobic processes in the formation of ATP.
b. Locations of various respiratory processes for both eukaryotic and prokaryotic cells.
c. Energy production and utilization to muscle function.
7. How animals stay healthy.
a. Non-specific and innate immune responses including the types of cells involved, the inflammatory response and how they function to prevent infection.
b. Acquired immune response, the cells involved, and their functions in preventing infections.
c. Immune response in infections outside and inside cells.
d. The effect of HIV on the immune system.
8. Osmoregulation, excretion and reproduction in animals.
a. Structures and processes necessary for the formation of urine.
b. Advantages and disadvantages of different types of nitrogenous wastes as adaptations to different habitats.
c. Osmoregulation and behavioral adaptations in terrestrial animals in response to habitat changes.
d. Structures and processes involved in sexual reproduction.
e. Advantages and disadvantages of external versus internal fertilization.
f. The role of hormones and feedback loops in reproduction.
9. Behavior and speciation.
a. Innate and learned behaviors in animals and their implications for the ethical treatment of animals.
b. Role of hormones and feedback loops in behavior.
c. The diversity of animals, mechanisms of speciation, and the evolution and extinction of species over time.
10. Classification and animal diversity.
a. Hierarchy of categories in animal classification and the distinguishing characteristics of each category.
11. Designing and conduct a long-term experiment, write a major laboratory reports and give a presentation of the lab and its results.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**	
2. Produce renewable energy	**No**	
3. Prevent environmental degradation	**No**	
4. Clean up natural environment	**No**	
5. Supports green services	**No**	

Percent of course: 0%

Section #2 Course 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 currently requires us to certify that at least one OUS school will accept a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these questions.

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Which OUS schools will the course transfer to? (Check all that apply)

✓ **EOU (Eastern Oregon University)**   ✓ **PSU (Portland State University)**
✓ **OIT (Oregon Institute of Technology)**   ✓ **SOU (Southern Oregon University)**
✓ **OSU (Oregon State University)**   ✓ **UO (University of Oregon)**
✓ **OSU-Cascade**   ✓ **WOU (Western Oregon University)**

Identify comparable course(s) at OUS school(s)

How does it transfer? (Check all that apply)

✓ **required or support for major**

:

Provide evidence of transferability: (minimum one, more preferred)

✓ **Correspondence with receiving institution (mail, fax, email, etc.)**

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: Business & Computer Science: Business

Submitter

First Name: Frank
Last Name: Corona
Phone: 6498
Email: francisco.corona@clackamas.edu

Course Prefix and Number: BT - 177

 # Credits: 3

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 33

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Microsoft Project

Course Description:

Covers the basics of using Microsoft Project to plan, schedule, and track a project. Also addresses communicating project information, assigning and tracking resources and costs, tracing progress, and closing a project. Concludes with students using Microsoft Project to produce management and other reports and to share project information with other audiences and applications.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): AAS Project Management, Project Management CC, Project Management Tools and Techniques CC.

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations:

Requirements: Access to MS Project or use CCC Dye Academic Computer Lab for coursework

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Winter

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. open, close, and save (with project baselines) project files using MS Project;
2. enter project work elements and Work Breakdown Structure information into MS Project;
3. plan a project in MS Project;
4. create a project schedule in MS Project;
5. demonstrate how to use standard and custom report functions in MS Project to communicate project information to other stakeholders;
6. assign resources and costs in MS Project;
7. track progress of projects and elements in MS Project;
8. close projects in MS Project;
9. share project information with other applications.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Introduction to course.
2. Opening and closing files in MS Project.
3. Saving files and saving baselines in MS Project.
4. Planning a project.
5. Creating a project schedule.
6. Communicating project information.
7. Assigning resources and costs.
8. Tracking progress and closing the project.
9. Sharing information with other people and applications.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

Specify term: wi 2020

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Section #1 General Course Information

Department: Education, Human Services & Criminal Justice

Submitter

First Name: Ida
Last Name: Flippo
Phone: 3363
Email: iflipp

Course Prefix and Number: CJA - 280

 # Credits: 6

Contact hours

Lecture (# of hours):
Lec/lab (# of hours):
Lab (# of hours):   216
Total course hours: 216

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Criminal Justice/Corrections/CWE

Course Description:

Cooperative work experience. Supervised experience in criminal justice, corrections, juvenile corrections, or related occupations. Variable Credit: 2-6 credits. May be repeated for up to 6 credits. Required: Student Petition.

Type of Course: Lower Division Collegiate

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

Yes

Up to how many credits can this course be repeated to satisfy a degree requirement? 6

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Criminal Justice AAS

Are there prerequisites to this course?

Yes

Pre-reqs: CJA-170

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

Yes

Co-reqs: CWE-281

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations:

Requirements: Student Petition

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ **Summer**
✓ **Fall**
✓ **Winter**
✓ **Spring**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. apply academic knowledge, skills, and abilities to a work environment specific to their program of study;
2. demonstrate appropriate work habits (time management, interpersonal relationships, attendance, professional appearance, and problem solving) for their work environment;
3. apply career management strategies such as interviewing, resume writing, networking, and portfolio development.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. How to develop an agreed upon work plan.
2. Creating goals and objectives to be achieved.
3. Execution of good work ethics: showing up for work on time, proper work attire, task performance to satisfactory levels, getting along well with supervisors and co-workers.
4. Final performance assessment.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**

4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

Section #2 Course 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 currently requires us to certify that at least one OUS school will accept a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these 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?

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 OUS schools will the course transfer to? (Check all that apply)

✓ **PSU (Portland State University)**
✓ **SOU (Southern Oregon University)**

✓ **WOU (Western Oregon University)**

Identify comparable course(s) at OUS school(s)

PSU, SOU and WOU: Lower Division Transfer/elective

How does it transfer? (Check all that apply)

✓ **required or support for major**

✓ **general elective**
:

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: Education, Human Services & Criminal Justice

Submitter

First Name: Ida
Last Name: Flippo
Phone: 3363
Email: iflipp

Course Prefix and Number: CJA - 281

 # Credits: 6

Contact hours

Lecture (# of hours):
Lec/lab (# of hours):
Lab (# of hours):   216
Total course hours: 216

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Criminal Justice/Corrections/CWE

Course Description:

Cooperative work experience. Supervised experience in criminal justice, corrections, juvenile corrections, or related occupations. Variable Credit: 2-6 credits. May be repeated for up to 6 credits. Required: Student Petition.

Type of Course: Lower Division Collegiate

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

Yes

Up to how many credits can this course be repeated to satisfy a degree requirement? 6

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Criminal Justice AAS

Are there prerequisites to this course?

Yes

Pre-reqs: CJA-170 and CJA-280

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

Yes

Co-reqs: CWE-281

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations:

Requirements: Student Petition

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ **Summer**
✓ **Fall**
✓ **Winter**
✓ **Spring**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. apply academic knowledge, skills, and abilities to a work environment specific to their program of study;
2. demonstrate appropriate work habits (time management, interpersonal relationships, attendance, professional appearance, and problem solving) for their work environment;
3. apply career management strategies such as interviewing, resume writing, networking, and portfolio development.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. How to develop an agreed upon work plan, building on the one used for CJA 280.
2. Creating new goals and objectives to be achieved.
3. Review of execution of good work ethics: showing up for work on time, proper work attire, task performance to satisfactory levels, getting along well with supervisors and co-workers.
4. Final performance assessment.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency   **No**
2. Produce renewable energy   **No**
3. Prevent environmental degradation **No**

4. Clean up natural environment　　　**No**
　5. Supports green services　　　**No**

Percent of course: 0%

Section #2 Course 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 currently requires us to certify that at least one OUS school will accept a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these 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?

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 OUS schools will the course transfer to? (Check all that apply)

✓ **PSU (Portland State University)**
✓ **SOU (Southern Oregon University)**

✓ **WOU (Western Oregon University)**

Identify comparable course(s) at OUS school(s)

PSU, SOU and WOU: Lower Division Transfer/elective

How does it transfer? (Check all that apply)

✓ **required or support for major**

✓ **general elective**
:

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: Business & Computer Science: Computer Science

Submitter

First Name: Jen
Last Name: Miller
Phone: 3138
Email: jen.miller

Course Prefix and Number: CS - 120

 # Credits: 4

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours): 22
Lab (# of hours):
Total course hours: 55

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Survey of Computing

Course Description:

A computer competency course to familiarize students with computer concepts, software applications and the implications of living in the digital age. Introduces students to computer concepts, including, but not limited to the Microsoft Windows environment, Microsoft Office Applications, hardware terminology, social media and the Internet.

Type of Course: Lower Division Collegiate

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

No

Are there prerequisites to this course?

Yes

Pre-reqs: CS-090 or placement in CS-120 and WRD-098 or placement in WR-121

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations:

Requirements: Flash drive

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ **Summer**
✓ **Fall**
✓ **Winter**
✓ **Spring**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. recall common computer hardware-related terms and concepts;
2. describe major events in the history of computing, including the origin of modern computing, the evolution of the modern internet, and the evolution of the Graphical User Interface;
3. create and modify documents, spreadsheets, databases and presentations using MS Office;
4. demonstrate the successful creation of a proper email, including how to digitally attach documents to an email prior to sending;
5. demonstrate successfully navigating the MS Windows environment;
6. describe and implement effective file management, including saving files on a computer, thumb drive, and in the cloud;
7. discuss the role of computers and utilizing computers within the current industrial and technological environment;
8. review the implications of social media on personal and professional endeavors;
9. demonstrate using the Internet as a research tool for scholarly projects as well as for personal uses (e.g. shopping, travel).

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Introduction.
2. Computing Fundamentals.
a. Essential computer hardware.
b. The role of the operating system.
c. Networking concepts.
3. Using Productivity Software.
a. Creating an email.
b. Creating a new Word document.
c. Formatting and organizing.
d. Importing text.
e. Collaboration.
f. Managing money formulas and functions.
g. Giving meaning to data using charts.
h. Creating and enriching presentations.
i. Creating a customized database.
4. Living in the Digital Age.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

Section #2 Course 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 currently requires us to certify that at least one OUS school will accept a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these 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?

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 OUS schools will the course transfer to? (Check all that apply)

Identify comparable course(s) at OUS school(s)

How does it transfer? (Check all that apply)

:

First term to be offered:

Next available term after approval
:

Clackamas Community College

Online Course/Outline Submission System

Section #1 General Course Information

Department: Art/DMC

Submitter

First Name: Nora
Last Name: Brodnicki
Phone: 3036
Email: norab

Course Prefix and Number: DMC - 221

 # Credits: 3

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 66
Lab (# of hours):
Total course hours: 66

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Introduction to 2D Animation: Design & Techniques

Course Description:

Introduces the principles of 2D digital animation using the latest industry standard software. The course will emphasize design and physical principles, analytical skills, and creativity. Students will learn the fundamental principles of animation, character and environment design, FX animation, and basic narrative development, in order to create successful animated projects.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): DMC AAS

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: CS-198 or ART-225 or equivalent experience.

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: No

When do you plan to offer this course?

✓ Winter
✓ Spring

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. apply imaging and animation software drawing tools and timeline;
2. apply the 12 Principles of Animation to an animation project;
3. identify the advantages and disadvantages of classic, motion, and shape tweens to create animation effects versus frame-based animation;
4. create an animated cartoon using imaging and animation software incorporating images, animations, sound effects, and music;
5. apply the time-saving features of animation software, such as the symbols library, pattern brushes and vector brush smoothing, and the motion editor;
6. apply best practices and design principles as they relate to the animation software and demonstrate that knowledge in their projects;
7. list the various stages of the animation process and follow through each stage.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Introduction – Traditional and Digital Animation Explained
2. Production Pipeline
3. Digital Animation Software and Practice
4. Illustration Concepts
5. Narrative Development
6. Imaging software animation techniques

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike

Course Prefix and Number: EET - 137

 # Credits: 4

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 88
Lab (# of hours):
Total course hours: 88

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Electrical Fundamentals I

Course Description:

Introduction to the basic concepts of voltage, current, resistance and their relationships in DC circuits. Use SI units, engineering notation and prefixes. Analysis of series, parallel and series-parallel circuits will be made using Ohm's & Kirchhoff's laws.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Electronics Engineering Technology programs

Are there prerequisites to this course?

Yes

Pre-reqs: Prerequisite or Corequisite: EET-112 and MTH-095

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations:

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Fall

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Illustrate basic concepts of voltage, current, resistance and their relationships in DC circuits;
2. analyze series, parallel and series-parallel circuits using Ohm's & Kirchloff's laws,
3. build, test, and troubleshoot DC circuits;
4. demonstrate the proper use of basic electrical test equipment,
5. recognize, convert and translate engineering prefixes and common SI units.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Engineering notation and prefixes, SI Units and conversions.
2. Voltage, Current and Resistance.
3. Ohms Law, Power and Energy.
4. Series Circuits.
5. Parallel Circuits.
6. Series-Parallel Circuits.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

Next available term after approval
:

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Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: EET - 139

 # Credits: 2

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 44
Lab (# of hours):
Total course hours: 44

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Principles of Troubleshooting I

Course Description:

Emphasizes theories and practices useful in troubleshooting failures in electrical applications. Focuses on the overall philosophy and strategy of troubleshooting, drawing applications from residential and varied industrial situations. Includes laboratory projects.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Electronics Engineering Technology programs

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: Prerequisite or Corequisite: EET-112, and EET-137 or MFG-130

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Fall

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. describe strategies for troubleshooting,
2. describe characteristics of a malfunction,
3. analyze faults that cause a malfunction,
4. evaluate steps for testing of faults.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Linear vs divide and conquer approach
2. Explain problem in detail
3. Simplify the problem.
4. Search for one failure not many
5. Justification for any tests or measurements that should be taken
6. Troubleshoot common electrical and mechanical systems from everyday life

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: EET - 141

 # Credits: 4

Contact hours

Lecture (# of hours):
Lec/lab (# of hours):   88
Lab (# of hours):
Total course hours: 88

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Electrical Fundamentals II

Course Description:

Learn methods of electrical circuit analysis, using proper DC theorems. Study energy storage elements including inductors and capacitors. Transient analysis of RC and RL circuits will studied.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Electronics Engineering Technology programs

Are there prerequisites to this course?

Yes

Pre-reqs: EET-137. Prerequisite or Corequisite: EET-113

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: Prerequisite or Corequisite: MTH-111

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Winter

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Describe source conversions, current sources, DC network theorems, inductors, and capacitors;
2. analyze circuit networks using DC network theorems,
3. predict circuit response for RC and RL circuits,
4. assemble, test, and troubleshoot RC and RL circuits;
5. demonstrate the proper use of the oscilloscope, function generators, etc. during the lab exercises.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Source conversion; current sources.
2. Network Theorems. (Norton, Thevenin, and Superpostion)
3. Capacitors and Capacitive charging and discharging.
4. Magnetism, Inductors and induction.
5. Transient analysis of RC and RL circuits.
6. Exponential functions

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval

:

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Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: EET - 142

 # Credits: 4

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 88
Lab (# of hours):
Total course hours: 88

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Electrical Fundamentals III

Course Description:

Covers sinusoidal functions and phasors and complex impedance. Analyze systems to determine AC circuit parameters and complex power. Circuits contain voltage and current sources, resistors, inductors, and transformers.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Electronics Engineering Technology programs

Are there prerequisites to this course?

Yes

Pre-reqs: EET-141

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: Prerequisite or Corequisite: MTH-112

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Spring

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Describe sinusoidal and phasor functions,
2. perform complex math on phasors,
3. analyze AC circuits using phasors,
4. calculate complex power in AC circuits,
5. assemble, test, and troubleshoot AC circuits,
6. demonstrate the proper use of electronic test equipment.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Sinusodial Functions
2. Phasors
3. Complex Impedance
4. AC Circuit analysis
5. AC Power analysis and compensation
6. 3-Phase AC Power introduction
7. Transformers

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval

:

Clackamas Community College

Online Course/Outline Submission System

Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: EET - 157

 # Credits: 3

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 66
Lab (# of hours):
Total course hours: 66

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Digital Logic I

Course Description:

An introduction to digital logic principles, numbering systems & conversions and gate operations. Using principles, circuit analysis will be used to minimize logic networks. Industry standard devices will be used.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Electronics Engineering Technology programs

Are there prerequisites to this course?

Yes

Pre-reqs: Prerequisite or Corequisite: EET-112

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: MTH-065

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Fall

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Describe basic Boolean Operations, computer number systems and encoding;
2. use Logic gates and Truth Tables, recognizing basic gate operations;
3. use datasheets to interpret basic operating parameters digital integrated circuits;
4. assemble (protoboard)and test basic digital circuits using power supplies, multi-meters and oscilloscopes.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Language of logic.
2. Numbering systems, operations and codes.
3. Basic Gate operations and levels.
4. Boolean Algebra and Logic simplification.
5. Combinatorial logic.
6. Clocked, Sequential, Asynchronous, and Synchronous logic.
7. Programmable logic circuits.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval

:

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Reject   Publish

Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: EET - 227

 # Credits: 3

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 66
Lab (# of hours):
Total course hours: 66

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Semiconductor Circuits II

Course Description:

Second in a series concentrating on the application, design and circuit analysis of circuits using transistors. Industry standard devices will be used.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Electronics Engineering Technology programs

Are there prerequisites to this course?

Yes

Pre-reqs: EET-127

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Winter

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Assemble, test, and troubleshoot transistor circuits;
2. describe the how transistors function,
3. describe the operation of circuits containing transistors,
4. calculate critical parameters for transistor circuits.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. BJT Transistors
2. CMOS Transistors
3. Amplifiers
4. Switching Circuits

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval
:

Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: EET - 233

 # Credits: 3

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 33

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Programmable Logic Controllers I

Course Description:

Study of basic skills necessary to program, install and maintain industrial control systems utilizing programmable logic controllers. Course content lays a foundation of hardwired relay control systems and components, and then builds on this for an understanding of programmable logic controller (PLC) systems.

Type of Course: Career Technical Supplementary

Can this course be repeated for credit in a degree?

No

What is the target audience/industry for this class?

CAM, Electronics, Semiconductor Manufacturing and Renewable Energy

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: MFG-130

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ **Winter**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Summarize the basic overview of programmable logic controllers PLCs) and their functionality,
2. diagram basic PLC hardware scheme,
3. summarize Logic Gates and their relationship to PLC programming including AND, OR, NOT, EXOR, etc;
4. use timers and counters and explain their functionality along with their use in specific applications,
5. diagram and program basic PLC diagrams,
6. develop a PLC program from a given problem statement to a documented and working program,
7. utilize troubleshooting skills to clarify and solve problem.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Overview of Programmable Logic Controllers.
2. Number Schemes i.e. Binary, Octal, Hexadecimal.
3. Logic Fundamentals i.e. AND, OR, NOT, EXOR Logic Gates.
4. Basics of PLC Programming.
5. Development of Fundamental PLC Wiring and Ladder Logic Programs.
6. Programming and Implementing Timers.
7. Programming and Implementing Counters.
8. Troubleshooting Techniques for Programming and I/O devices.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval
:

Clackamas Community College

Online Course/Outline Submission System

Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: EET - 234

 # Credits: 3

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 33

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Programmable Logic Controllers II

Course Description:

An advanced course of study that will develop the student's understanding of Programmable Logic Controllers (PLC) in more detailed Industrial applications through lectures, labs and hands-on examples. This course will emphasize advanced PLC functions and data sets, networking schemes and human machine interfaces.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Electronics Engineering Technology, IMT

Are there prerequisites to this course?

Yes

Pre-reqs: EET-233

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

Yes

Have you consulted with the Dept Chair(s) of other program(s) regarding potential impact such as overlap, duplication, enrollment, impact, etc.?

Yes (A 'Yes' certifies you have talked with the chair and have received approval.)*

What was the result of the conversation with those department(s)?

RET and IMT want this move as well.

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Spring

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Identify the advanced functions of the programmable logic controller (PLC)analog inputs and analog outputs,
2. recognize advanced Instruction Sets for Data Manipulation,
3. create and explain networking schemes including Ethernet and Serial communications,
4. recognize how to create and communicate with Human Machine Interfaces (HMI) and how they interface with the PLC platform,
5. create and troubleshoot PLC's interconnected to demo units through labs and program software tools.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Overview of Analog Signals, involving how to wire, test and troubleshoot through software and meters;
2. Perform higher level programming skills including Defined Function Blocks, Structured Text, Function Call, etc.;
3. Program, wire, and troubleshoot Ethernet Communication networks;
4. Create, program, and interconnect HMI's into the PLC platform;
5. Troubleshoot networks utilizing wireless Ethernet networks with Tablets, IPhones, and other wireless devices.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval
:

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: EET - 239

 # Credits: 2

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 44
Lab (# of hours):
Total course hours: 44

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Principles of Troubleshooting II

Course Description:

Covers advanced applications of diagnosis, maintenance and repair of systems. Includes preventative maintenance, applied statistical process, and AC/DC motor controls.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): EET, IMT, RET

Are there prerequisites to this course?

Yes

Pre-reqs: IMT-139 or EET-139; EET-141 or MFG-131

Have you consulted with the appropriate chair if the pre-req is in another program?
Yes (A 'Yes' certifies you have talked with the chair and have received approval.)*

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: IMT-223

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

Yes

Have you consulted with the Dept Chair(s) of other program(s) regarding potential impact such as overlap, duplication, enrollment, impact, etc.?

Yes (A 'Yes' certifies you have talked with the chair and have received approval.)*

What was the result of the conversation with those department(s)?

RET and IMT both support the change.

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Fall

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Describe troubleshooting advanced strategies, Total Preventive Maintenance, and applied SPC;
2. troubleshoot various circuits and determine possible failure modes,
3. explain detailed schematics of complex systems.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. PC troubleshooting review.
2. Schematic symbols review.
3. Transistors, opamps, transformers, digital basics review.
4. Statistical process control & total preventive maintenance.
5. AC/DC Motors and motor control circuits

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: EET - 250

 # Credits: 3

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 66
Lab (# of hours):
Total course hours: 66

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Linear Circuits

Course Description:

Introduction to the operation and functions of operational amplifiers and linear devices. Design and circuit analysis of op-amps, comparators, converters and special purpose linear devices. Industry standard devices will be used.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Electronics Engineering Technology programs

Are there prerequisites to this course?

Yes

Pre-reqs: EET-227

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations:

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Spring

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Assemble, test, and troubleshoot circuits containing linear devices;
2. describe how operational amplifiers function,
3. describe operation of linear circuits,
4. calculate critical parameters for linear circuits.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Operational amplifiers.
2. Signal generators.
3. Comparators.
4. Active filters.
5. IC timers.
6. A-D and D-A converters.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: Skills Development

Submitter

First Name: Lisa
Last Name: Nielson
Phone: 3401
Email: lisan

Course Prefix and Number: EL - 111

 # Credits: 3

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 33

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: College Study Skills

Course Description:

Emphasizes time management, listening/notetaking, testing skills/anxiety, college resources, learning styles, reading strategies, textbook reading, and concentration skills.

Type of Course: Lower Division Collegiate

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

No

Are there prerequisites to this course?

Yes

Pre-reqs: WRD-080 or placement in WRD-090

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Not every term

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. create and use goals to inform time management and learning strategies,
2. describe effective learning strategies and match them to assignment requirements,
3. apply systematic study strategies to learn from textbooks and lectures,
4. identify and apply test preparation and test taking skills,
5. apply principles of positive psychology to manage collegiate expectations,
6. explain basic brain functioning and its relationship to thinking and learning.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Learning and memory.
a. Learning styles.
b. Learning theory – multiple intelligences.
c. Memory theory.
d. Basic brain structures and relationship to studying.
2. Goal setting and time management.
a. Setting priorities and goals.
b. Time management strategies.
3. Textbook study strategies.
a. Reading strategies.
b. Notetaking strategies.
4. Lecture note taking strategies.
a. Listening.
b. Notetaking.
5. Testing.
a. Test Anxiety and stress reducing strategies.
b. Test preparation.
c. Test-taking.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**

3. Prevent environmental degradation   **No**
4. Clean up natural environment   **No**
5. Supports green services   **No**

Percent of course: 0%

Section #2 Course 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 currently requires us to certify that at least one OUS school will accept a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these 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?

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 OUS schools will the course transfer to? (Check all that apply)

Identify comparable course(s) at OUS school(s)

How does it transfer? (Check all that apply)

:

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: Social Science

Submitter

First Name: Robert
Last Name: Keeler
Phone: 3409
Email: robertk

Course Prefix and Number: GEO - 100

 # Credits: 4

Contact hours

Lecture (# of hours): 44
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 44

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Introduction to Physical Geography

Course Description:

Analyzes the physical elements of the Earth's surface and atmosphere. Focuses on natural processes that create physical diversity on the Earth including weather and climate, biosphere, soils and landforms and explores how these influence human cultural settlement activities.

Type of Course: Lower Division Collegiate

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

Yes

Check which General Education requirement:

✓ **Social Science**
✓ **Cultural Literacy**

Is this course part of an AAS or related certificate of completion?

No

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: WRD-090 or placement in WRD-098

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Not every term

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. describe the elements that make up physical environments and the basic natural processes which produce them; (SC1) (SC2) (SC3)
2. gather information to generate questions and address solutions regarding the natural environment; (SC1) (SC2) (SC3)
3. outline the major climatic, soil, and vegetative regions of the world; (SC1) (SC2) (SC3)
4. correlate these regions with the major varieties of human settlements, cultures and land uses characteristic of each; (SS1) (SS2) (CL1)
5. discuss the importance of the physical environment to our survival as a species; (SS1) (SS2) (CL1)
6. assess the strengths and weaknesses of scientific studies and critically examine the influence of scientific and knowledge on human society and the physical environment. (SC3)

AAOT/ASOT GENERAL EDUCATION OUTCOMES

COURSE OUTLINE MAPPING CHART

Mark outcomes addressed by the course:

- Mark "C" if this course completely addresses the outcome. Students who successfully complete this course are likely to have attained this learning outcome.
- Mark "S" if this course substantially addresses the outcome. More than one course is required for the outcome to be completely addressed. Students who successfully complete all of the required courses are likely to have attained this learning outcome.
- Mark "P" if this course partially addresses the outcome. Students will have been exposed to the outcome as part of the class, but the class is not a primary means for attaining the outcome and assessment for general education purposes may not be necessary.

As a result of completing the AAOT/ASOT general education requirements, students will be able to:

WR: Writing Outcomes

1. Read actively, think critically, and write purposefully and capably for academic and, in some cases, professional audiences.

2. Locate, evaluate, and ethically utilize information to communicate effectively.

3. Demonstrate appropriate reasoning in response to complex issues.

SP: Speech/Oral Communication Outcomes

1. Engage in ethical communication processes that accomplish goals.

2. Respond to the needs of diverse audiences and contexts.

3. Build and manage relationships.

MA: Mathematics Outcomes:

1. Use appropriate mathematics to solve problems.

2. 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.

AL: Arts and Letters Outcomes

1. Interpret and engage in the Arts & Letters, making use of the creative process to enrich the quality of life.

2. Critically analyze values and ethics within range of human experience and expression to engage more fully in local and global issues.

SS: Social Science Outcomes

S   1. Apply analytical skills to social phenomena in order to understand human behavior.

S   2. Apply knowledge and experience to foster personal growth and better appreciate the diverse social world in which we live.

SC: Science or Computer Science Outcomes

P   1. Gather, comprehend, and communicate scientific and technical information in order to explore ideas, models, and solutions and generate further questions.

P   2. Apply scientific and technical modes of inquiry, individually, and collaboratively, to critically examine the influence of scientific and technical knowledge on human society and the environment.

P   3. Assess the strengths and weaknesses of scientific studies and critically examine the influence of scientific and technical knowledge on human society and the environment.

CL: Cultural Literacy Outcome

P   1. Identify and analyze complex practices, values, and beliefs and the culturally and historically defined meanings of difference.

Outcomes Assessment Strategies:

✓ Projects
✓ Writing Assignments

✓ Multiple Choice Test

:

Major Topic Outline:

1. Elements making up the physical environment.
2. Natural processes which produce the variety of physical environments around the world.
3. Overview of major climatic.
4. Soil and vegetative regions around the world.
5. The varieties of human settlements.
6. Cultures and land uses characteristic of each.
7. Importance of physical environment for our survival as a species.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**

3. Prevent environmental degradation   **No**
 4. Clean up natural environment   **No**
 5. Supports green services   **No**

Percent of course: 0%

Section #2 Course 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 currently requires us to certify that at least one OUS school will accept a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these 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?

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 OUS schools will the course transfer to? (Check all that apply)

✓ **EOU (Eastern Oregon University)**

✓ **OSU (Oregon State University)**

✓ **PSU (Portland State University)**
✓ **SOU (Southern Oregon University)**
✓ **UO (University of Oregon)**
✓ **WOU (Western Oregon University)**

Identify comparable course(s) at OUS school(s)

WOU GEOG 105 UO GEOG 141

How does it transfer? (Check all that apply)

✓ **required or support for major**
✓ **general education or distribution requirement**
✓ **general elective**
:

Provide evidence of transferability: (minimum one, more preferred)

✓ **Other. Please explain.**

Oregon College Transfer lists

First term to be offered:

Next available term after approval
:

Clackamas Community College

Online Course/Outline Submission System

Section #1 General Course Information

Department: Social Science

Submitter

First Name: Robert
Last Name: Keeler
Phone: 3409
Email: robertk

Course Prefix and Number: GEO - 110

 # Credits: 4

Contact hours

Lecture (# of hours): 44
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 44

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Cultural & Human Geography

Course Description:

Introduces geographical perspectives on human population, agriculture, political pattern, language, religion, folk culture, popular culture, ethnic culture, urban development, industry, and transportation as these play out on the diverse landscapes of the world.

Type of Course: Lower Division Collegiate

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

Yes

Check which General Education requirement:

✓ Social Science
✓ Cultural Literacy

Is this course part of an AAS or related certificate of completion?

No

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: WRD-090 or placement in WRD-098

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Not every term

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. explain what is meant by a geographical perspective or worldview; (SS1) (SS2)
2. describe ways in which human culture and the natural environment interact to create landscapes; (SS1) (SS2) (CL1)
3. identify the five key elements in a geographical perspective; (SS1) (SS2)
4. use these five elements to analyze examples of human culture past and present and their relationship to the natural environment; (SS1) (SS2) (CL1)
5. discuss basic models of geographical analysis and demonstrate how they are used to solve simple locational problems; (SS1) (SS2) (CL1)
6. identify key components of good maps; (SS1) (SS2) (CL1)
7. evaluate maps for bias. (SS1) (SS2) (CL1)

AAOT/ASOT GENERAL EDUCATION OUTCOMES

COURSE OUTLINE MAPPING CHART

Mark outcomes addressed by the course:

- Mark "C" if this course completely addresses the outcome. Students who successfully complete this course are likely to have attained this learning outcome.
- Mark "S" if this course substantially addresses the outcome. More than one course is required for the outcome to be completely addressed. Students who successfully complete all of the required courses are likely to have attained this learning outcome.
- Mark "P" if this course partially addresses the outcome. Students will have been exposed to the outcome as part of the class, but the class is not a primary means for attaining the outcome and assessment for general education purposes may not be necessary.

As a result of completing the AAOT/ASOT general education requirements, students will be able to:

WR: Writing Outcomes

1. Read actively, think critically, and write purposefully and capably for academic and, in some cases, professional audiences.

2. Locate, evaluate, and ethically utilize information to communicate effectively.

3. Demonstrate appropriate reasoning in response to complex issues.

SP: Speech/Oral Communication Outcomes

1. Engage in ethical communication processes that accomplish goals.

2. Respond to the needs of diverse audiences and contexts.

3. Build and manage relationships.

MA: Mathematics Outcomes:

1. Use appropriate mathematics to solve problems.

2. 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.

AL: Arts and Letters Outcomes

1. Interpret and engage in the Arts & Letters, making use of the creative process to enrich the quality of life.

2. Critically analyze values and ethics within range of human experience and expression to engage more fully in local and global issues.

SS: Social Science Outcomes

S 1. Apply analytical skills to social phenomena in order to understand human behavior.

S 2. Apply knowledge and experience to foster personal growth and better appreciate the diverse social world in which we live.

SC: Science or Computer Science Outcomes

1. Gather, comprehend, and communicate scientific and technical information in order to explore ideas, models, and solutions and generate further questions.

2. Apply scientific and technical modes of inquiry, individually, and collaboratively, to critically examine the influence of scientific and technical knowledge on human society and the environment.

3. Assess the strengths and weaknesses of scientific studies and critically examine the influence of scientific and technical knowledge on human society and the environment.

CL: Cultural Literacy Outcome

S 1. Identify and analyze complex practices, values, and beliefs and the culturally and historically defined meanings of difference.

Outcomes Assessment Strategies:

✓ **Projects**
✓ **Writing Assignments**

✓ **Multiple Choice Test**

:

Major Topic Outline:

1. A geographical perspective or world view.
2. Key aspects of human cultures in spatial perspective, including such elements as population, economy, religion, language, ethnicity, political systems, agriculture, natural resources, urbanization and transportation systems.
3. Map design, use, interpretation and detecting map bias.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**	
2. Produce renewable energy	**No**	
3. Prevent environmental degradation	**No**	
4. Clean up natural environment	**No**	
5. Supports green services	**No**	

Percent of course: 0%

Section #2 Course 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 currently requires us to certify that at least one OUS school will accept a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these 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?

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 OUS schools will the course transfer to? (Check all that apply)

✓ **OSU (Oregon State University)**

✓ **PSU (Portland State University)**
✓ **SOU (Southern Oregon University)**
✓ **UO (University of Oregon)**
✓ **WOU (Western Oregon University)**

Identify comparable course(s) at OUS school(s)

PSY GEO LD elective OSU GEOG 103
SOU GEOG 107 WOU GEOG 107
UO GEOG 142
SOSCI EXPL

How does it transfer? (Check all that apply)

✓ **required or support for major**
✓ **general education or distribution requirement**
✓ **general elective**
:

Provide evidence of transferability: (minimum one, more preferred)

✓ **Other. Please explain.**

Oregon college transfer lists

First term to be offered:

Next available term after approval
:

☑ Show changes since last approval in red   Print   Edit   Delete   Back

Section #1 General Course Information

Department: Social Science

Submitter

First Name: Robert
Last Name: Keeler
Phone: 3409
Email: robertk

Course Prefix and Number: GEO - 130

 # Credits: 4

Contact hours

Lecture (# of hours): 44
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 44

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Introduction to Environmental Geography

Course Description:

Explores the contemporary global environmental problems such as: overpopulation, over consumption, ozone layer depletion, pollution, acid rain, deforestation, desertification, and waste problems. Examines alternative sources of energy to fossil fuel and sustainable development strategies.

Type of Course: Lower Division Collegiate

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

Yes

Check which General Education requirement:

✓ **Social Science**
✓ **Cultural Literacy**

Is this course part of an AAS or related certificate of completion?

No

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: WRD-090 or placement in WRD-098

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ **Not every term**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. gather information on major contemporary global environmental problems and issues such as: overpopulation, over consumption, ozone layer depletion, pollution, acid rain, deforestation, desertification, and waste disposal and explore possible solutions to them; (SS1), (SS2)
2. analyze basic impacts of human activities on the physical environment and recognize the complexities involved in seeking solutions to environmental problems; (SS1), (SS2),(CL1)
3. assess the strengths and weaknesses of environmental studies & critically examine the influence of scientific and technical knowledge on human society; (SS1), (SS2), CL1
4. outline possible strategies for sustainable development. (SS1), (SS2),(CL1)

COURSE OUTLINE MAPPING CHART

Mark outcomes addressed by the course:

- Mark "C" if this course completely addresses the outcome. Students who successfully complete this course are likely to have attained this learning outcome.
- Mark "S" if this course substantially addresses the outcome. More than one course is required for the outcome to be completely addressed. Students who successfully complete all of the required courses are likely to have attained this learning outcome.
- Mark "P" if this course partially addresses the outcome. Students will have been exposed to the outcome as part of the class, but the class is not a primary means for attaining the outcome and assessment for general education purposes may not be necessary.

As a result of completing the AAOT/ASOT general education requirements, students will be able to:

WR: Writing Outcomes

1. Read actively, think critically, and write purposefully and capably for academic and, in some cases, professional audiences.

2. Locate, evaluate, and ethically utilize information to communicate effectively.

3. Demonstrate appropriate reasoning in response to complex issues.

SP: Speech/Oral Communication Outcomes

1. Engage in ethical communication processes that accomplish goals.

2. Respond to the needs of diverse audiences and contexts.

3. Build and manage relationships.

MA: Mathematics Outcomes:

1. Use appropriate mathematics to solve problems.

2. 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.

AL: Arts and Letters Outcomes

1. Interpret and engage in the Arts & Letters, making use of the creative process to enrich the quality of life.

2. Critically analyze values and ethics within range of human experience and expression to engage more fully in local and global issues.

SS: Social Science Outcomes

S   1. Apply analytical skills to social phenomena in order to understand human behavior.

S   2. Apply knowledge and experience to foster personal growth and better appreciate the diverse social world in which we live.

SC: Science or Computer Science Outcomes

1. Gather, comprehend, and communicate scientific and technical information in order to explore ideas, models, and solutions and generate further questions.

2. Apply scientific and technical modes of inquiry, individually, and collaboratively, to critically examine the influence of scientific and technical knowledge on human society and the environment.

3. Assess the strengths and weaknesses of scientific studies and critically examine the influence of scientific and technical knowledge on human society and the environment.

CL: Cultural Literacy Outcome

P   1. Identify and analyze complex practices, values, and beliefs and the culturally and historically defined meanings of difference.

Outcomes Assessment Strategies:

✓ **Projects**
✓ **Writing Assignments**

✓ **Multiple Choice Test**

:

Major Topic Outline:

Survey of contemporary global environmental problems and issues such as: overpopulation, over consumption, ozone layer depletion, pollution, acid rain, deforestation, desertification, and waste disposal.
Examination of possible alternative sources of energy to fossil fuels and basic comparative analysis of costs and limitations of each.
Definition of sustainable development and consideration of strategies for achieving it.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

Section #2 Course 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 currently requires us to certify that at least one OUS school will accept a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these 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?

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 OUS schools will the course transfer to? (Check all that apply)

✓ **PSU (Portland State University)**
✓ **SOU (Southern Oregon University)**
✓ **OSU (Oregon State University)** ✓ **UO (University of Oregon)**

Identify comparable course(s) at OUS school(s)

UO GEOG 143

How does it transfer? (Check all that apply)

:

Provide evidence of transferability: (minimum one, more preferred)

✓ **Other. Please explain.**

Oregon College Transfer Lists

First term to be offered:

Next available term after approval
:

☑ Show changes since last approval in red   Print Edit Delete Back
Reject Publish

Section #1 General Course Information

Department: Social Sciences

Submitter

First Name: Robert
Last Name: Keeler
Phone: 3409
Email: robertk

Course Prefix and Number: GEO - 208

 # Credits: 4

Contact hours

Lecture (# of hours): 44
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 44

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Geography of the United States & Canada

Course Description:

Provides students with the fundamental geographical knowledge of the United States and Canada and their paths of development. Presents the spatial arrangement of culture, economics, politics, and the natural environment.

Type of Course: Lower Division Collegiate

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

Yes

Check which General Education requirement:

✓ **Social Science**
✓ **Cultural Literacy**

Is this course part of an AAS or related certificate of completion?

No

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: WRD-090 or placement in WRD-098

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ **Not every term**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. understand the role and impact of climate and topography on human settlement patterns and movements; (SS1)(SS2)(CL1)
2. discuss historical and geographical factors that shape the landscapes of the United States and Canada; (SS1)(SS2)(CL1)
3. identify key physical features, urban areas, political boundaries and cultural places and landmarks in the United States and Canada and use key geographical concepts to explore their relationships. (SS1)(SS2)(CL1)

AAOT/ASOT GENERAL EDUCATION OUTCOMES

COURSE OUTLINE MAPPING CHART

Mark outcomes addressed by the course:

- Mark "C" if this course completely addresses the outcome. Students who successfully complete this course are likely to have attained this learning outcome.
- Mark "S" if this course substantially addresses the outcome. More than one course is required for the outcome to be completely addressed. Students who successfully complete all of the required courses are likely to have attained this learning outcome.
- Mark "P" if this course partially addresses the outcome. Students will have been exposed to the outcome as part of the class, but the class is not a primary means for attaining the outcome and assessment for general education purposes may not be necessary.

As a result of completing the AAOT/ASOT general education requirements, students will be able to:

WR: Writing Outcomes

1. Read actively, think critically, and write purposefully and capably for academic and, in some cases, professional audiences.

2. Locate, evaluate, and ethically utilize information to communicate effectively.

3. Demonstrate appropriate reasoning in response to complex issues.

SP: Speech/Oral Communication Outcomes

1. Engage in ethical communication processes that accomplish goals.

2. Respond to the needs of diverse audiences and contexts.

3. Build and manage relationships.

MA: Mathematics Outcomes:

1. Use appropriate mathematics to solve problems.

2. 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.

AL: Arts and Letters Outcomes

1. Interpret and engage in the Arts & Letters, making use of the creative process to enrich the quality of life.

2. Critically analyze values and ethics within range of human experience and expression to engage more fully in local and global issues.

SS: Social Science Outcomes

S 1. Apply analytical skills to social phenomena in order to understand human behavior.

S 2. Apply knowledge and experience to foster personal growth and better appreciate the diverse social world in which we live.

SC: Science or Computer Science Outcomes

1. Gather, comprehend, and communicate scientific and technical information in order to explore ideas, models, and solutions and generate further questions.

2. Apply scientific and technical modes of inquiry, individually, and collaboratively, to critically examine the influence of scientific and technical knowledge on human society and the environment.

3. Assess the strengths and weaknesses of scientific studies and critically examine the influence of scientific and technical knowledge on human society and the environment.

CL: Cultural Literacy Outcome

S 1. Identify and analyze complex practices, values, and beliefs and the culturally and historically defined meanings of difference.

Outcomes Assessment Strategies:

✓ **Projects**
✓ **Writing Assignments**

✓ **Multiple Choice Test**

:

Major Topic Outline:

Survey of the spatial variations found in contemporary United States and Canada. Subjects surveyed include: politics, economics, traditional and popular culture, social systems, agriculture, climate, and topography.
Definition of core and periphery regions and the varying methods of identifying them.
Examine past and future trends affecting the cultural and physical landscapes of these two countries and their paths to development.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	No
2. Produce renewable energy	No
3. Prevent environmental degradation	No
4. Clean up natural environment	No
5. Supports green services	No

Percent of course: 0%

Section #2 Course 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 currently requires us to certify that at least one OUS school will accept a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these 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?

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 OUS schools will the course transfer to? (Check all that apply)

✓ PSU (Portland State University)
✓ SOU (Southern Oregon University)
✓ OSU (Oregon State University) ✓ UO (University of Oregon)

Identify comparable course(s) at OUS school(s)

PSU GEO LD elective OSU GEOG LDT
UO GEOG 208 SOU LDT SOSCI EXPL

How does it transfer? (Check all that apply)

✓ required or support for major
✓ general education or distribution requirement
✓ general elective
:

Provide evidence of transferability: (minimum one, more preferred)

✓ Other. Please explain.

Oregon college transfer lists

First term to be offered:

Next available term after approval
:

☑ Show changes since last approval in red   Print   Edit   Delete   Back
Reject   Publish

Section #1 General Course Information

Department: PE/Health/Athletics

Submitter

First Name: Tim
Last Name: Pantages
Phone: 3792
Email: timp

Course Prefix and Number: HE - 163

 # Credits: 3

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 33

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Body & Drugs I: Introduction to Abuse & Addiction

Course Description:

The first of a four-course sequence, this course examines the history of the use of addictive drugs, the definition of addiction, psychosocial and neurobiological causes of drug and behavioral addiction, addictive drug classifications, and the history of/introduction to addiction treatment,and access and utilize effective resources to improve and maintain mental and physical wellbeing.

Type of Course: Lower Division Collegiate

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

Yes

Check which General Education requirement:

✓ Social Science

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Human Services, Criminal Justice, Health Fitness Technology

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

Yes

Area: Physical Education/Health

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ **Summer**
✓ **Fall**
✓ **Winter**
✓ **Spring**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. summarize five historical themes of drug use across all cultures;
2. describe the continuum of drug use;
3. discuss the five main routes of administration of drugs;
4. identify and explain the process of neurophysiological addiction;
5. summarize the history of addiction treatment;
6. access and utilize effective resources to improve and maintain mental and physical well being.

Mark outcomes addressed by the course:

- Mark "C" if this course completely addresses the outcome. Students who successfully complete this course are likely to have attained this learning outcome.
- Mark "S" if this course substantially addresses the outcome. More than one course is required for the outcome to be completely addressed. Students who successfully complete all of the required courses are likely to have attained this learning outcome.
- Mark "P" if this course partially addresses the outcome. Students will have been exposed to the outcome as part of the class, but the class is not a primary means for attaining the outcome and assessment for general education purposes may not be necessary.

As a result of completing the AAOT/ASOT general education requirements, students will be able to:

WR: Writing Outcomes

1. Read actively, think critically, and write purposefully and capably for academic and, in some cases, professional audiences.

2. Locate, evaluate, and ethically utilize information to communicate effectively.

3. Demonstrate appropriate reasoning in response to complex issues.

SP: Speech/Oral Communication Outcomes

1. Engage in ethical communication processes that accomplish goals.

2. Respond to the needs of diverse audiences and contexts.

3. Build and manage relationships.

MA: Mathematics Outcomes:

1. Use appropriate mathematics to solve problems.

2. 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.

AL: Arts and Letters Outcomes

1. Interpret and engage in the Arts & Letters, making use of the creative process to enrich the quality of life.

2. Critically analyze values and ethics within range of human experience and expression to engage more fully in local and global issues.

SS: Social Science Outcomes

P 1. Apply analytical skills to social phenomena in order to understand human behavior.

P 2. Apply knowledge and experience to foster personal growth and better appreciate the diverse social world in which we live.

SC: Science or Computer Science Outcomes

1. Gather, comprehend, and communicate scientific and technical information in order to explore ideas, models, and solutions and generate further questions.

2. Apply scientific and technical modes of inquiry, individually, and collaboratively, to critically examine the influence of scientific and technical knowledge on human society and the environment.

3. Assess the strengths and weaknesses of scientific studies and critically examine the influence of scientific and technical knowledge on human society and the environment.

Outcomes Assessment Strategies:

✓ General Examination

:

Major Topic Outline:

1. Brief history of alcohol and drug use.
2. Definition and categories of psychoactive drugs.
3. Classification of psychoactive drugs.
4. Overview of physiology/neurobiology of addiction.
5. History of addiction treatment.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**	
2. Produce renewable energy	**No**	
3. Prevent environmental degradation	**No**	
4. Clean up natural environment	**No**	
5. Supports green services	**No**	

Percent of course: 0%

Section #2 Course 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 currently requires us to certify that at least one OUS school will accept a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these 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?

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 OUS schools will the course transfer to? (Check all that apply)

✓ **EOU (Eastern Oregon University)**   ✓ **PSU (Portland State University)**
✓ **OIT (Oregon Institute of Technology)** ✓ **SOU (Southern Oregon University)**
✓ **OSU (Oregon State University)** ✓ **UO (University of Oregon)**
✓ **OSU-Cascade** ✓ **WOU (Western Oregon University)**

Identify comparable course(s) at OUS school(s)

How does it transfer? (Check all that apply)

✓ **general elective**
:

Provide evidence of transferability: (minimum one, more preferred)

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: PE/Health/Athletics

Submitter

First Name: Tim
Last Name: Pantages
Phone: 3792
Email: timp

Course Prefix and Number: HE - 164

 # Credits: 3

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 33

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Body & Drugs II: Alcohol

Course Description:

The second of a four-course offering. Covers beverage alcohol as a drug, the history of alcohol use/abuse, physiological and psychological effects of alcohol use on the user, and the impact of that use on those around the user and on society at large, access and utilize effective resources to improve and maintain mental and physical wellbeing. .

Type of Course: Lower Division Collegiate

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

Yes

Check which General Education requirement:

✓ Social Science

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Human Services, Criminal Justice, Fitness Technology

Are there prerequisites to this course?

Yes

Pre-reqs: HE-163

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

Yes

Area: Physical Education/Health

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Not every term

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. describe the three basic categories of beverage alcohol;
2. summarize the history of alcohol use;
3. summarize direct and/or indirect consequences of alcohol consumption on the major physiological systems of the body;
4. access and utilize effective resources to improve and maintain mental and physical well being.

COURSE OUTLINE MAPPING CHART

Mark outcomes addressed by the course:

- Mark "C" if this course completely addresses the outcome. Students who successfully complete this course are likely to have attained this learning outcome.
- Mark "S" if this course substantially addresses the outcome. More than one course is required for the outcome to be completely addressed. Students who successfully complete all of the required courses are likely to have attained this learning outcome.
- Mark "P" if this course partially addresses the outcome. Students will have been exposed to the outcome as part of the class, but the class is not a primary means for attaining the outcome and assessment for general education purposes may not be necessary.

As a result of completing the AAOT/ASOT general education requirements, students will be able to:

WR: Writing Outcomes

1. Read actively, think critically, and write purposefully and capably for academic and, in some cases, professional audiences.

2. Locate, evaluate, and ethically utilize information to communicate effectively.

3. Demonstrate appropriate reasoning in response to complex issues.

SP: Speech/Oral Communication Outcomes

1. Engage in ethical communication processes that accomplish goals.

2. Respond to the needs of diverse audiences and contexts.

3. Build and manage relationships.

MA: Mathematics Outcomes:

1. Use appropriate mathematics to solve problems.

2. 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.

AL: Arts and Letters Outcomes

1. Interpret and engage in the Arts & Letters, making use of the creative process to enrich the quality of life.

2. Critically analyze values and ethics within range of human experience and expression to engage more fully in local and global issues.

SS: Social Science Outcomes

P   1. Apply analytical skills to social phenomena in order to understand human behavior.

P   2. Apply knowledge and experience to foster personal growth and better appreciate the diverse social world in which we live.

SC: Science or Computer Science Outcomes

1. Gather, comprehend, and communicate scientific and technical information in order to explore ideas, models, and solutions and generate further questions.

2. Apply scientific and technical modes of inquiry, individually, and collaboratively, to critically examine the influence of scientific and technical knowledge on human society and the environment.

3. Assess the strengths and weaknesses of scientific studies and critically examine the influence of scientific and technical knowledge on human society and the environment.

Outcomes Assessment Strategies:

✓ General Examination

:

Major Topic Outline:

1. History of alcohol use.
2. Personal and societal costs of alcohol abuse.
3. Types of alcohol.
4. Physiological effects of alcohol consumption.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

Section #2 Course 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 currently requires us to certify that at least one OUS school will accept a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these 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?

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 OUS schools will the course transfer to? (Check all that apply)

✓ **EOU (Eastern Oregon University)**   ✓ **PSU (Portland State University)**
✓ **OIT (Oregon Institute of Technology)**   ✓ **SOU (Southern Oregon University)**
✓ **OSU (Oregon State University)**   ✓ **UO (University of Oregon)**
✓ **OSU-Cascade**   ✓ **WOU (Western Oregon University)**

Identify comparable course(s) at OUS school(s)

How does it transfer? (Check all that apply)

✓ **general elective**
:

Provide evidence of transferability: (minimum one, more preferred)

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: IMT - 223

 # Credits: 3

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 66
Lab (# of hours):
Total course hours: 66

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Instrumentation & Controls

Course Description:

Introduction to control systems and instrumentation. Includes open and closed loop systems. Focuses on the use of switches, sensors, and relays to control processes.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): IMT, EET, RET, MST

Are there prerequisites to this course?

Yes

Pre-reqs: EET-137 or MFG-130

Have you consulted with the appropriate chair if the pre-req is in another program?
Yes (A 'Yes' certifies you have talked with the chair and have received approval.)*

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: EET-141 or MFG-131

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

Yes

Have you consulted with the Dept Chair(s) of other program(s) regarding potential impact such as overlap, duplication, enrollment, impact, etc.?

Yes (A 'Yes' certifies you have talked with the chair and have received approval.)*

What was the result of the conversation with those department(s)?

All programs that use this course are ok with the move.

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Spring

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Describe critical terms in open and closed loop systems,
2. describe the difference between open and closed loop systems,
3. recognize symbols for various switches, sensors, and relays,
4. describe function of various switches, sensors, and relays,
5. build, test, and troubleshoot circuits containing switches, sensors, and/or relays,
6. predict parameters and output of circuits containing switches, sensors, and/or relays,
7. explain and translate analog signals to real world valued.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Block diagrams of open and closed loop systems
2. Basics of feedback systems
3. Mechanical switches
4. Electrical pull-up (source) and pull-down (sink) switches
5. Sensors
6. 4-20mA signalling
7. Relays and solenoids
8. Building control circuits with switches and relays
9. Calibration of transmitters and transducers

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency   **No**
2. Produce renewable energy   **No**
3. Prevent environmental degradation   **No**
4. Clean up natural environment   **No**
5. Supports green services   **No**

Percent of course: 0%

First term to be offered:

Next available term after approval
:

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1. Increased energy efficiency   **No**
2. Produce renewable energy   **No**
3. Prevent environmental degradation   **No**
4. Clean up natural environment   **No**
5. Supports green services   **No**

Section #1 General Course Information

Department: Library

Submitter

First Name: Jane
Last Name: Littlefield
Phone: 3474
Email: jane.littlefield@clackamas.edu

Course Prefix and Number: LIB - 101

 # Credits: 1

Contact hours

Lecture (# of hours): 11
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 11

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Introduction to Library Research

Course Description:

Trains students in the use of a variety of print and electronic information resources, search tools, and information evaluation. Excellent preparation for term papers and other research assignments.

Type of Course: Lower Division Collegiate

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

No

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: CS-090 or equivalent experience

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?
Yes (A 'Yes' certifies you have talked with the librarian and have received approval.)*

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ **Summer**
✓ **Fall**
✓ **Winter**
✓ **Spring**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. practice information searching skills across multiple formats and tools;
2. evaluate information resources for credibility and suitability for college-level coursework;
3. demonstrate ethical and socially-responsible creation and use of information.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Introduction to information: the academic information cycle and general organization of print and electronic resources within the library.
2. Browse and search techniques for finding print and electronic materials relevant to a research topic in the library's collections.
3. Effective use of a library catalog to identify and retrieve print and electronic books relevant to a research topic.
4. Effective use of academic databases (including use of Boolean searching, subject terms, and search limits) to identify and retrieve journal, magazine, and newspaper articles relevant to a research topic.
5. Effective use of search engines for finding academically useful information on the free web.
6. Evaluation of information resources for use in academic term papers.
7. The role of librarians in facilitating research.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**	
2. Produce renewable energy	**No**	
3. Prevent environmental degradation	**No**	
4. Clean up natural environment	**No**	
5. Supports green services	**No**	

Percent of course: 0%

Section #2 Course Transferability

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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 OUS schools will the course transfer to? (Check all that apply)

Identify comparable course(s) at OUS school(s)

How does it transfer? (Check all that apply)

:

First term to be offered:

Specify term: FA19

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Section #1 General Course Information

Department: Mathematics

Submitter

First Name: Adriana
Last Name: Aristizabal
Phone: 3916
Email: adrianaa

Course Prefix and Number: MTH - 010

 # Credits: 4

Contact hours

Lecture (# of hours): 42
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 42

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Fundamentals of Arithmetic

Course Description:

This first course in arithmetic reviews operations on whole numbers, basic fractions, decimals, measurement, and basic geometry.

Type of Course: Developmental Education

Can this course be repeated for credit in a degree?

No

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Summer
✓ Fall
✓ Winter
✓ Spring

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. use mental arithmetic, paper and pencil algorithms, and a calculator as computation tools in solving mathematical problems;
2. use the operations of arithmetic on whole numbers, selected fractions, and decimals;
3. estimate the results of a computation;
4. apply and demonstrate the concepts which underlie the algorithms of arithmetic;
5. demonstrate the ability to reason and draw conclusions from numerical information.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Addition and Subtraction of Whole Numbers
2. Multiplication of Whole Numbers
3. Division of Whole Numbers
4. Introduction to Fractions
5. Addition, Subtraction, and Multiplication of Decimals
6. Division of Decimals
7. Metric and English Systems of Measurement
8. Geometry
9. Data Analysis

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: Mathematics

Submitter

First Name: Ellis
Last Name: Meuser
Phone: 3400
Email: ellism

Course Prefix and Number: MTH - 020

 # Credits: 4

Contact hours

Lecture (# of hours): 44
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 44

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Fundamentals of Arithmetic II

Course Description:

This second course in arithmetic is a prerequisite for the three math pathways. It reviews mathematical foundations such as fractions, percents, geometry, and effective study skills.

Type of Course: Developmental Education

Can this course be repeated for credit in a degree?

No

Are there prerequisites to this course?

Yes

Pre-reqs: MTH-010 with a C or better, or placement in MTH-020

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ **Summer**
✓ **Fall**
✓ **Winter**
✓ **Spring**

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. use mental arithmetic, estimation, paper and pencil algorithms, and a calculator as computational tools in solving mathematical problems;
2. apply number theory concepts (primes, factors, and multiples) with integers and fractions;
3. perform arithmetic operations with fractions, decimals, and signed numbers;
4. apply proportional and geometric reasoning to solve problems;
5. use appropriate study skills and test taking strategies.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Factors and Multiples
2. Fractions
3. Ratio and Proportion
4. Percent
5. Statistics
6. Geometry
7. Positive and Negative Numbers
8. Study Skills

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: Mathematics

Submitter

First Name: Adam
Last Name: Hall
Phone: 3326
Email: adamh

Course Prefix and Number: MTH - 065

 # Credits: 4

Contact hours

Lecture (# of hours): 44
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 44

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Algebra II

Course Description:

The second term of topics in algebra using the rule-of-four approach: graphs, tables, words, and equations. This course emphasizes algebraic skills, as well as problem solving and graphical techniques with the use of a graphing utility.

Type of Course: Developmental Education

Can this course be repeated for credit in a degree?

No

Are there prerequisites to this course?

Yes

Pre-reqs: MTH-060 with a C or better, or placement in MTH-065

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

Yes

Area: Computation

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ **Summer**
✓ **Fall**
✓ **Winter**
✓ **Spring**

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. create and solve a linear system graphically or algebraically for an application or situation and interpret the results;
2. create and perform exponential and polynomial arithmetic for an application or situation and interpret the results;
3. create and solve a polynomial equation algebraically for an application or situation, and interpret the results;
4. create a linear or quadratic function or equation model for an application or situation and interpret the results.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Properties of exponents
2. Polynomials
3. Factoring
4. Functions
5. Systems of linear equations
6. Linear equations and linear inequalities

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval
:

Clackamas Community College

Online Course/Outline Submission System

Section #1 General Course Information

Department: World Languages

Submitter

First Name: Irma
Last Name: Bjerre
Phone: 5034530271
Email: irmab@clackamas.edu

Course Prefix and Number: SPN - 101

 # Credits: 4

Contact hours

Lecture (# of hours): 44
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 44

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: First-Year Spanish I

Course Description:

First of a three-term foundational, multimedia course for beginners. Initial emphasis is on speaking and listening comprehension, with secondary emphasis on reading and writing. Various cultural themes are presented.

Type of Course: Lower Division Collegiate

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

No

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: WRD-098 or placement in WR-121

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Summer
✓ Fall
✓ Winter
✓ Spring

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. produce formal and informal greetings and introductions and basic courtesy expressions;
2. recognize appropriate situations for using formal and informal forms of address;
3. talk about his/her classes and school life and discusses everyday activities;
4. use simple vocabulary and structures to ask questions and describe the locations of people and things;
5. express likes and dislikes with the verb gustar;
6. talk about his/her famil,y including their relationship and professions and use learned vocabulary to describe people and things;
7. express possession;
8. use the present tense forms of ser & estar, -ar, -er and -ir verbs and tener and venir;
9. talk about dates and time and ask and answer questions;
10. count and solves simple mathematical problems using numbers 0-31 and higher.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Greetings and introduction and courtesy expressions
2. Describing people and things, including place of origen and nationality
3. Family and family relationships and professions
4. Subjects at the university and academic life
5. The calendar and the seasons
6. Dates and clock time
7. Days of the week, months and seasons

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

Section #2 Course 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 currently requires us to certify that at least one OUS school will accept a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these 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?

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 OUS schools will the course transfer to? (Check all that apply)

✓ **OSU (Oregon State University)**

✓ **PSU (Portland State University)**
✓ **SOU (Southern Oregon University)**
✓ **UO (University of Oregon)**
✓ **WOU (Western Oregon University)**

Identify comparable course(s) at OUS school(s)

SPAN 101 (PSU,SOU,UO)
SPAN 101D (WOU)
SPAN 111 (OSU)

How does it transfer? (Check all that apply)

✓ **general education or distribution requirement**
✓ **general elective**
:

First term to be offered:

Specify term: Fall 2019

Clackamas Community College

Online Course/Outline Submission System

Section #1 General Course Information

Department: World Languages

Submitter

First Name: Irma
Last Name: Bjerre
Phone: 5035943245
Email: irmab@clackamas.edu

Course Prefix and Number: SPN - 102

 # Credits: 4

Contact hours

Lecture (# of hours): 44
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 44

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: First-Year Spanish II

Course Description:

Second of a three-term foundational, multimedia course for beginners. Initial emphasis is on speaking and listening comprehension, with secondary emphasis on reading and writing. Various cultural themes are presented.

Type of Course: Lower Division Collegiate

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

No

Are there prerequisites to this course?

Yes

Pre-reqs: SPN-101

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: WRD-098 or placement in WR-121

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ **Summer**
✓ **Fall**
✓ **Winter**
✓ **Spring**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. use the verb ir to discuss going places and plans for the near future;
2. describe current weather conditions and the weather typical of each month and season;
3. use the verb gustar to express likes and dislikes related to sports and pastimes;
4. conjugate familiar and unfamiliar verbs by applying rules for stem-changing verbs;
5. count by hundreds to 1000;
6. use correctly and in context the verbs saber and conocer to express knowledge and familiarity;
7. express the location of people and objects using demonstrative adjectives and pronouns;
8. use direct, indirect, and double-object pronouns to replace nouns in given and new sentences;
9. combine direct, indirect, and double-object pronouns with infinitives and present participles;
10. express actions that happen in the present moment with 'estar' and the present participle form of the verb;
11. use verbs with irregular yo forms correctly and in context.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Pastimes, sports and places in the city
2. Travel and vacations
3. The weather and seasons
4. Clothing, colors and shopping
5. Going to the market and negotiating a price and buying

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency   **No**
2. Produce renewable energy   **No**
3. Prevent environmental degradation **No**
4. Clean up natural environment   **No**
5. Supports green services   **No**

Percent of course: 0%

Section #2 Course 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 currently requires us to certify that at least one OUS school will accept a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these 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?

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 OUS schools will the course transfer to? (Check all that apply)

✓ **OSU (Oregon State University)**

✓ **PSU (Portland State University)**
✓ **SOU (Southern Oregon University)**
✓ **UO (University of Oregon)**
✓ **WOU (Western Oregon University)**

Identify comparable course(s) at OUS school(s)

SPAN 102 (PSU,SOU,UO)
SPAN 102D (WOU)
SPAN 112 (OSU)

How does it transfer? (Check all that apply)

✓ **general education or distribution requirement**
✓ **general elective**
:

First term to be offered:

Specify term: Winter 2019

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Section #1 General Course Information

Department: Theater

Submitter

First Name: James
Last Name: Eikrem
Phone: 3157
Email: jamese

Course Prefix and Number: TA - 195

 # Credits: 3

Contact hours

Lecture (# of hours):
Lec/lab (# of hours):
Lab (# of hours):   99
Total course hours: 99

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Student Performance Showcase

Course Description:

Training in special forms of theatrical presentation through in-class intensive preparation, study, and program development for public presentation, including comedy improvisation, stand-up comedy, and student directed one-act plays. Roles in one-act plays require a successful audition. Other opportunities open to all. Variable Credit: 1-3 credits. May be repeated for up to 6 credits.

Type of Course: Lower Division Collegiate

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

Yes

Up to how many credits can this course be repeated to satisfy a degree requirement? 6

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

No

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Fall
✓ Winter
✓ Spring

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. develop characters, comedic routines,and/or improvisational forms for public performance through script analysis, practice of theatrical forms, comedic timing, and physical and vocal acting techniques, and/or write a set of stand-up comedy material for presentation; (AL1) (AL2)
2. identify and articulate these principles as they observe and perform with other students in the class; (AL1) (A2)
3. utilize both print and electronic information resources available at the CCC library and computer labs to adequately research their specific assigned task; (AL2)
4. demonstrate verbal and non-verbal communication skills with other performers and audiences through listening and teamwork;
5. interpret and convey the fellow actors' ideas and meanings through the live performance;(AL1) (AL2)
6. demonstrate cooperation with casts and crew, and/or demonstrate the necessary technical skills to produce the showcase; (AL1) (AL2)
7. demonstrate teamwork, group problem solving, the ability to give and take direction, to listen, to observe and respond quickly to any given situation during a public performance. (AL1)

This course does not include assessable General Education outcomes.

Major Topic Outline:

1.rehearsing and performing student directed one-act plays,and/or stand-up comedy, and/or comedy improvisation
2.choosing and securing a project for performance
3.holding auditions, casting, creating performance and production schedules
4.providing,through limited theater department resources,for set,costume,props,lighting,promotion and publicity
5.utilize both print and electronic information resources available at the CCC library and computer labs to adequately research their specific assigned task

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

Section #2 Course 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 currently requires us to certify that at least one OUS school will accept a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these 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?

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 OUS schools will the course transfer to? (Check all that apply)

Identify comparable course(s) at OUS school(s)

How does it transfer? (Check all that apply)

:

First term to be offered:

Next available term after approval
:

Clackamas Community College

Online Course/Outline Submission System

Section #1 General Course Information

Department: Theatre

Submitter

First Name: James
Last Name: Eikrem
Phone: 3157
Email: jamese

Course Prefix and Number: TA - 295

 # Credits: 3

Contact hours

Lecture (# of hours):
Lec/lab (# of hours):
Lab (# of hours):   99
Total course hours: 99

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Student Performance Showcase

Course Description:

Training in special forms of theatrical presentation through in-class intensive preparation, study, and program development for public presentation, including comedy improvisation, stand-up comedy, and student directed one-act plays. Roles in one-act plays require a successful audition. Other opportunities open to all. Variable Credit: 1-3 credits. May be repeated for up to 6 credits.

Type of Course: Lower Division Collegiate

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

Yes

Up to how many credits can this course be repeated to satisfy a degree requirement? 6

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

Yes

Check which General Education requirement:

✓ Arts and Letters

Is this course part of an AAS or related certificate of completion?

No

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Fall
✓ Winter
✓ Spring

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. develop characters, comedic routines,and/or improvisational forms for public performance through script analysis, practice of theatrical forms, comedic timing, and physical and vocal acting techniques, and/or write a set of stand-up comedy material for presentation; (AL1) (AL2)
2. identify and articulate these principles as they observe and perform with other students in the class, (AL1) (A2)
3. utilize both print and electronic information resources available at the CCC library and computer labs to adequately research their specific assigned task, (AL2)
4. demonstrate verbal and non-verbal communication skills with other performers and audiences through listening and teamwork,
5. interpret and convey the fellow actors' ideas and meanings through the live performance, (AL1) (AL2)
6. demonstrate cooperation with casts and crew, and/or demonstrate the necessary technical skills to produce the showcase; (AL1) (AL2)
7. demonstrate teamwork, group problem solving, the ability to give and take direction, to listen, to observe and respond quickly to any given situation during a public performance. (AL1)

AAOT/ASOT GENERAL EDUCATION OUTCOMES

COURSE OUTLINE MAPPING CHART

Mark outcomes addressed by the course:

- Mark "C" if this course completely addresses the outcome. Students who successfully complete this course are likely to have attained this learning outcome.
- Mark "S" if this course substantially addresses the outcome. More than one course is required for the outcome to be completely addressed. Students who successfully complete all of the required courses are likely to have attained this learning outcome.
- Mark "P" if this course partially addresses the outcome. Students will have been exposed to the outcome as part of the class, but the class is not a primary means for attaining the outcome and assessment for general education purposes may not be necessary.

As a result of completing the AAOT/ASOT general education requirements, students will be able to:

WR: Writing Outcomes

    1. Read actively, think critically, and write purposefully and capably for academic and, in some cases, professional audiences.

    2. Locate, evaluate, and ethically utilize information to communicate effectively.

    3. Demonstrate appropriate reasoning in response to complex issues.

SP: Speech/Oral Communication Outcomes

P   1. Engage in ethical communication processes that accomplish goals.

P   2. Respond to the needs of diverse audiences and contexts.

P   3. Build and manage relationships.

MA: Mathematics Outcomes:

    1. Use appropriate mathematics to solve problems.

    2. 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.

AL: Arts and Letters Outcomes

S   1. Interpret and engage in the Arts & Letters, making use of the creative process to enrich the quality of life.

S   2. Critically analyze values and ethics within range of human experience and expression to engage more fully in local and global issues.

SS: Social Science Outcomes

    1. Apply analytical skills to social phenomena in order to understand human behavior.

P   2. Apply knowledge and experience to foster personal growth and better appreciate the diverse social world in which we live.

SC: Science or Computer Science Outcomes

    1. Gather, comprehend, and communicate scientific and technical information in order to explore ideas, models, and solutions and generate further questions.

    2. Apply scientific and technical modes of inquiry, individually, and collaboratively, to critically examine the influence of scientific and technical knowledge on human society and the environment.

    3. Assess the strengths and weaknesses of scientific studies and critically examine the influence of scientific and technical knowledge on human society and the environment.

CL: Cultural Literacy Outcome

    1. Identify and analyze complex practices, values, and beliefs and the culturally and historically defined meanings of difference.

Outcomes Assessment Strategies:

✓ Writing Assignments

✓ Criteria

✓ Performances/Simulation
:

Major Topic Outline:

1. The Student Performance Showcase consists of three units: student directed one-act plays, stand-up comedy, and comedy improvisation. 1 to 3 credits are available depending on number of units in which a student participates.Students will be involved in all areas of production. The student director/producer will be responsible for choosing and securing a project for performance, holding auditions, casting, creating performance and production schedules, and providing, through limited theatre department resources, for set, costume, props and lighting, promotion and publicity. Rehearsals are one hour, three times a week, MWF. Four performance times are scheduled during the tenth week of the term. Students will be expected to utilize both print and electronic information resources available at the CCC library and computer labs to adequately research their specific assigned task.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**

4. Clean up natural environment   **No**
5. Supports green services   **No**

Percent of course: 0%

Section #2 Course 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 currently requires us to certify that at least one OUS school will accept a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these 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?

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 OUS schools will the course transfer to? (Check all that apply)

Identify comparable course(s) at OUS school(s)

How does it transfer? (Check all that apply)

:

Provide evidence of transferability: (minimum one, more preferred)

First term to be offered:

Next available term after approval
:

Related Instruction

December 6, 2019 (8-9:30am, CC127)

Course Number	Title	Related Instruction Area
CJA-250	Reporting, Recording & Testifying	Human Relations
COMM-126	Introduction to Gender Communication	Human Relations
HE-201	Personal Training	Physical Education/Health
HE-202	Introduction to Fitness Technology Careers	Physical Education/Health
HE-207	Introduction to Plant Based Living	Physical Education/Health
MTH-082E	Math for High Purity Water	Computation
MTH-095	Algebra III	Computation
PSY-101	Human Relations	Human Relations

Course	Current Hours/Credits	Proposed Hours/Credits	Implementation Term
ECE-139	10 LECT, 1 credit	11 LECT, 1 credit	2020/WI
ECE-142	10 LECT, 1 credit	11 LECT, 1 credit	2020/WI
ECE-143	10 LECT, 1 credit	11 LECT, 1 credit	2020/WI
ECE-144	10 LECT, 1 credit	11 LECT, 1 credit	2020/WI
ECE-241	30 LECT, 3 credits	33 LECT, 3 credits	2020/WI
EET-112	66 LE/LA, 3 credits	22 LE/LA, 1 credit	2020/SU
EET-127	88 LE/LA, 4 credits	44 LE/LA, 2 credits	2020/SU
EET-215	44 LE/LA, 2 credits	66 LE/LA, 3 credits	2020/SU
EET-254	88 LE/LA, 4 credits	66 LE/LA, 3 credits	2020/SU
EET-257	88 LE/LA, 4 credits	66 LE/LA, 3 credits	2020/SU
FRP-294	24 LECT, 2 credits	21 LECT, 2 credits	2020/WI
PH-150	22 LECT, 2 credits	33 LECT, 3 credits	2020/WI

Section #1 General Course Information

Department: Education, Human Services & Criminal Justice

Submitter

First Name: Dawn
Last Name: Hendricks
Phone: 6158
Email: dawn.hendricks

Course Prefix and Number: ECE - 139

 # Credits: 1

Contact hours

Lecture (# of hours): 11
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 11

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Program Management in ECE

Course Description:

Focuses on planning and evaluating an early childhood program's specific goals (short and long term) for working with children and their families. Emphasis on administrative tasks such as meeting state and national standards and requirements, maintaining records, and striving for continuous improvement in program quality.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

Yes

Check which General Education requirement:

✓ Writing
✓ Oral Communication

✓ Social Science

Is this course part of an AAS or related certificate of completion?

No

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?
Yes (A 'Yes' certifies you have talked with the librarian and have received approval.)*

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Not every term

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. articulate the components required to operate a program efficiently,
2. describe state and national standards early childhood programs must meet,
3. detail the components of a cooperative relationship with staff, families and children;
4. specify how the "confidentiality" issue related to ECE settings,
5. develop a plan for self-advocacy activities that involve parents, staff and other stakeholders.

COURSE OUTLINE MAPPING CHART

Mark outcomes addressed by the course:

- Mark "C" if this course completely addresses the outcome. Students who successfully complete this course are likely to have attained this learning outcome.
- Mark "S" if this course substantially addresses the outcome. More than one course is required for the outcome to be completely addressed. Students who successfully complete all of the required courses are likely to have attained this learning outcome.
- Mark "P" if this course partially addresses the outcome. Students will have been exposed to the outcome as part of the class, but the class is not a primary means for attaining the outcome and assessment for general education purposes may not be necessary.

As a result of completing the AAOT/ASOT general education requirements, students will be able to:

WR: Writing Outcomes

1. Read actively, think critically, and write purposefully and capably for academic and, in some cases, professional audiences.

P   2. Locate, evaluate, and ethically utilize information to communicate effectively.

3. Demonstrate appropriate reasoning in response to complex issues.

SP: Speech/Oral Communication Outcomes

P   1. Engage in ethical communication processes that accomplish goals.

2. Respond to the needs of diverse audiences and contexts.

P   3. Build and manage relationships.

MA: Mathematics Outcomes:

1. Use appropriate mathematics to solve problems.

2. 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.

AL: Arts and Letters Outcomes

1. Interpret and engage in the Arts & Letters, making use of the creative process to enrich the quality of life.

2. Critically analyze values and ethics within range of human experience and expression to engage more fully in local and global issues.

SS: Social Science Outcomes

P   1. Apply analytical skills to social phenomena in order to understand human behavior.

P   2. Apply knowledge and experience to foster personal growth and better appreciate the diverse social world in which we live.

SC: Science or Computer Science Outcomes

1. Gather, comprehend, and communicate scientific and technical information in order to explore ideas, models, and solutions and generate further questions.

2. Apply scientific and technical modes of inquiry, individually, and collaboratively, to critically examine the influence of scientific and technical knowledge on human society and the environment.

3. Assess the strengths and weaknesses of scientific studies and critically examine the influence of scientific and technical knowledge on human society and the environment.

Outcomes Assessment Strategies:

✓ **Projects**
✓ **Writing Assignments**

:

Major Topic Outline:

1. State and national standards.
2. Using community resources.
3. Record keeping and reporting.
4. Establishment of cooperative relationships.
5. Confidentiality issues in ECE.
6. Advocating for self, families and program.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**	
2. Produce renewable energy	**No**	
3. Prevent environmental degradation	**No**	
4. Clean up natural environment	**No**	
5. Supports green services	**No**	

Percent of course: 0%

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: Education, Human Services and Criminal Justice

Submitter

First Name: Dawn
Last Name: Hendricks
Phone: 6158
Email: dawn.hendricks

Course Prefix and Number: ECE - 142

 # Credits: 1

Contact hours

Lecture (# of hours): 11
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 11

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Media, Technology and the Influences on Child Development

Course Description:

Focuses on the implementation and influences of media and technology on the development of the young child. Emphasizes analysis of media and technology tools for effectiveness in supporting the development of young children.

Type of Course: Career Technical Preparatory

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

Yes

Check which General Education requirement:

✓ Writing

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Early Childhood Education & Family Studies programs

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?
Yes (A 'Yes' certifies you have talked with the librarian and have received approval.)*

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: No

When do you plan to offer this course?

✓ Not every term

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. recognize and articulate the differences that media and technology can have on child development,
2. make informed choices for selecting developmentally appropriate tools for their work with young children,
3. select strategies for supporting children's development with media and technology as common tools.

Mark outcomes addressed by the course:

- Mark "C" if this course completely addresses the outcome. Students who successfully complete this course are likely to have attained this learning outcome.
- Mark "S" if this course substantially addresses the outcome. More than one course is required for the outcome to be completely addressed. Students who successfully complete all of the required courses are likely to have attained this learning outcome.
- Mark "P" if this course partially addresses the outcome. Students will have been exposed to the outcome as part of the class, but the class is not a primary means for attaining the outcome and assessment for general education purposes may not be necessary.

As a result of completing the AAOT/ASOT general education requirements, students will be able to:

WR: Writing Outcomes

      1. Read actively, think critically, and write purposefully and capably for academic and, in some cases, professional audiences.

P   2. Locate, evaluate, and ethically utilize information to communicate effectively.

P   3. Demonstrate appropriate reasoning in response to complex issues.

SP: Speech/Oral Communication Outcomes

      1. Engage in ethical communication processes that accomplish goals.

      2. Respond to the needs of diverse audiences and contexts.

      3. Build and manage relationships.

MA: Mathematics Outcomes:

      1. Use appropriate mathematics to solve problems.

      2. 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.

AL: Arts and Letters Outcomes

      1. Interpret and engage in the Arts & Letters, making use of the creative process to enrich the quality of life.

      2. Critically analyze values and ethics within range of human experience and expression to engage more fully in local and global issues.

SS: Social Science Outcomes

      1. Apply analytical skills to social phenomena in order to understand human behavior.

      2. Apply knowledge and experience to foster personal growth and better appreciate the diverse social world in which we live.

SC: Science or Computer Science Outcomes

      1. Gather, comprehend, and communicate scientific and technical information in order to explore ideas, models, and solutions and generate further questions.

      2. Apply scientific and technical modes of inquiry, individually, and collaboratively, to critically examine the influence of scientific and technical knowledge on human society and the environment.

      3. Assess the strengths and weaknesses of scientific studies and critically examine the influence of scientific and technical knowledge on human society and the environment.

Outcomes Assessment Strategies:

      ✓ **Projects**
      ✓ **Writing Assignments**

:

Major Topic Outline:

1. Research on the influence of media and technology on child development.
2. Developmentally appropriate tools for children 3-5 years old.
3. Ways that media and technology can support learning.
4. Ways for integrating media and technology into daily activities.
5. Selecting strategies for promoting developmentally appropriate media and technology choices for young children.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

Specify term: Fall 2014

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Section #1 General Course Information

Department: Education, Human Services and Criminal Justice

Submitter

First Name: Dawn
Last Name: Hendricks
Phone: 6158
Email: dawn.hendricks

Course Prefix and Number: ECE - 143

 # Credits: 1

Contact hours

Lecture (# of hours): 11
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 11

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Kindergarten Readiness

Course Description:

Introduces core concepts of kindergarten readiness, including outcomes that are focused in on Pre-K as well as strategies for children as they prepare for kindergarten.

Type of Course: Career Technical Preparatory

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

Yes

Check which General Education requirement:

✓ Writing

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Early Childhood Education & Family Studies programs

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: No

When do you plan to offer this course?

✓ Not every term

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. define kindergarten readiness, according to state guidelines and common research;
2. recognize the relationship between pre-K outcomes and kindergarten readiness,
3. promote strategies for supporting children as they prepare for kindergarten transition.

COURSE OUTLINE MAPPING CHART

Mark outcomes addressed by the course:

- Mark "C" if this course completely addresses the outcome. Students who successfully complete this course are likely to have attained this learning outcome.
- Mark "S" if this course substantially addresses the outcome. More than one course is required for the outcome to be completely addressed. Students who successfully complete all of the required courses are likely to have attained this learning outcome.
- Mark "P" if this course partially addresses the outcome. Students will have been exposed to the outcome as part of the class, but the class is not a primary means for attaining the outcome and assessment for general education purposes may not be necessary.

As a result of completing the AAOT/ASOT general education requirements, students will be able to:

WR: Writing Outcomes

    1. Read actively, think critically, and write purposefully and capably for academic and, in some cases, professional audiences.

P   2. Locate, evaluate, and ethically utilize information to communicate effectively.

P   3. Demonstrate appropriate reasoning in response to complex issues.

SP: Speech/Oral Communication Outcomes

    1. Engage in ethical communication processes that accomplish goals.

    2. Respond to the needs of diverse audiences and contexts.

    3. Build and manage relationships.

MA: Mathematics Outcomes:

    1. Use appropriate mathematics to solve problems.

    2. 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.

AL: Arts and Letters Outcomes

    1. Interpret and engage in the Arts & Letters, making use of the creative process to enrich the quality of life.

    2. Critically analyze values and ethics within range of human experience and expression to engage more fully in local and global issues.

SS: Social Science Outcomes

    1. Apply analytical skills to social phenomena in order to understand human behavior.

    2. Apply knowledge and experience to foster personal growth and better appreciate the diverse social world in which we live.

SC: Science or Computer Science Outcomes

    1. Gather, comprehend, and communicate scientific and technical information in order to explore ideas, models, and solutions and generate further questions.

    2. Apply scientific and technical modes of inquiry, individually, and collaboratively, to critically examine the influence of scientific and technical knowledge on human society and the environment.

    3. Assess the strengths and weaknesses of scientific studies and critically examine the influence of scientific and technical knowledge on human society and the environment.

Outcomes Assessment Strategies:

        ✓ **Projects**
        ✓ **Writing Assignments**

:

Major Topic Outline:

1. Research and definitions of kindergarten readiness.
2. Pre-K outcomes framework.
3. Pre-K outcomes and the relationship to kindergarten readiness.
4. Oregon's kindergarten assessment.
5. Strategies that support readiness for children.
6. Kindergarten transitions.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**	
2. Produce renewable energy	**No**	
3. Prevent environmental degradation	**No**	
4. Clean up natural environment	**No**	
5. Supports green services	**No**	

Percent of course: 0%

First term to be offered:

Specify term: Winter 2015

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Section #1 General Course Information

Department: Education, Human Services and Criminal Justice

Submitter

First Name: Dawn
Last Name: Hendricks
Phone: 6158
Email: dawn.hendricks

Course Prefix and Number: ECE - 144

 # Credits: 1

Contact hours

Lecture (# of hours): 11
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 11

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Working with the Gifted Young Child

Course Description:

Focuses on understanding the needs of the gifted young child and selecting strategies for supporting their development individually as well as in group settings.

Type of Course: Career Technical Preparatory

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

Yes

Check which General Education requirement:

✓ Writing

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Early Childhood Education & Family Studies programs

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: No

When do you plan to offer this course?

✓ Not every term

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. define the gifted young child,
2. articulate the developmental needs of the children who are gifted,
3. select strategies for supporting development of children who are gifted.

COURSE OUTLINE MAPPING CHART

Mark outcomes addressed by the course:

- Mark "C" if this course completely addresses the outcome. Students who successfully complete this course are likely to have attained this learning outcome.
- Mark "S" if this course substantially addresses the outcome. More than one course is required for the outcome to be completely addressed. Students who successfully complete all of the required courses are likely to have attained this learning outcome.
- Mark "P" if this course partially addresses the outcome. Students will have been exposed to the outcome as part of the class, but the class is not a primary means for attaining the outcome and assessment for general education purposes may not be necessary.

As a result of completing the AAOT/ASOT general education requirements, students will be able to:

WR: Writing Outcomes

    1. Read actively, think critically, and write purposefully and capably for academic and, in some cases, professional audiences.

P   2. Locate, evaluate, and ethically utilize information to communicate effectively.

P   3. Demonstrate appropriate reasoning in response to complex issues.

SP: Speech/Oral Communication Outcomes

    1. Engage in ethical communication processes that accomplish goals.

    2. Respond to the needs of diverse audiences and contexts.

    3. Build and manage relationships.

MA: Mathematics Outcomes:

    1. Use appropriate mathematics to solve problems.

    2. 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.

AL: Arts and Letters Outcomes

    1. Interpret and engage in the Arts & Letters, making use of the creative process to enrich the quality of life.

    2. Critically analyze values and ethics within range of human experience and expression to engage more fully in local and global issues.

SS: Social Science Outcomes

    1. Apply analytical skills to social phenomena in order to understand human behavior.

    2. Apply knowledge and experience to foster personal growth and better appreciate the diverse social world in which we live.

SC: Science or Computer Science Outcomes

    1. Gather, comprehend, and communicate scientific and technical information in order to explore ideas, models, and solutions and generate further questions.

    2. Apply scientific and technical modes of inquiry, individually, and collaboratively, to critically examine the influence of scientific and technical knowledge on human society and the environment.

    3. Assess the strengths and weaknesses of scientific studies and critically examine the influence of scientific and technical knowledge on human society and the environment.

Outcomes Assessment Strategies:

        ✓ **Projects**
        ✓ **Writing Assignments**

:

Major Topic Outline:

1. Research and definitions of children who are gifted.
2. Development needs of children who are gifted.
3. Strategies for creating activties, routines and experiences for engaging children who are gifted.
4. Assessing children who are gifted.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Specify term: Spring 2015

Clackamas Community College

Online Course/Outline Submission System

Section #1 General Course Information

Department: Education, Human Services and Criminal Justice

Submitter

First Name: Dawn
Last Name: Hendricks
Phone: 6158
Email: dawn.hendricks

Course Prefix and Number: ECE - 241

 # Credits: 3

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 33

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Environments and Curriculum Planning: Infants and Toddlers

Course Description:

Builds upon knowledge and skills learned in ECE-240: Environments and Curriculum Planning. Emphasis is on application of research-based strategies to implement and evaluate early childhood environments and curriculum for children from birth-three years old. Focus is on integrating content knowledge throughout all classroom activities.

Type of Course: Career Technical Preparatory

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

Yes

Check which General Education requirement:

✓ Writing
✓ Oral Communication

✓ Social Science

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Early Childhood Education & Family Studies

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?
Yes (A 'Yes' certifies you have talked with the librarian and have received approval.)*

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: No

When do you plan to offer this course?

✓ Fall

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. define the components of a developmentally appropriate curriculum for infants and toddlers,
2. design learning environments that meets the needs of infants and toddlers,
3. create individual and group planning forms that meets that needs of all children,
4. involve families in curriculum planning and implementation in collaborative ways both at home and in school,
5. adapt activities to meet the needs of dual language learners and children with special needs,
6. create home made, developmentally appropriate materials to use in the childhood classroom.

AAOT/ASOT GENERAL EDUCATION OUTCOMES

COURSE OUTLINE MAPPING CHART

Mark outcomes addressed by the course:

- Mark "C" if this course completely addresses the outcome. Students who successfully complete this course are likely to have attained this learning outcome.
- Mark "S" if this course substantially addresses the outcome. More than one course is required for the outcome to be completely addressed. Students who successfully complete all of the required courses are likely to have attained this learning outcome.
- Mark "P" if this course partially addresses the outcome. Students will have been exposed to the outcome as part of the class, but the class is not a primary means for attaining the outcome and assessment for general education purposes may not be necessary.

As a result of completing the AAOT/ASOT general education requirements, students will be able to:

WR: Writing Outcomes

    1. Read actively, think critically, and write purposefully and capably for academic and, in some cases, professional audiences.

P   2. Locate, evaluate, and ethically utilize information to communicate effectively.

P   3. Demonstrate appropriate reasoning in response to complex issues.

SP: Speech/Oral Communication Outcomes

P   1. Engage in ethical communication processes that accomplish goals.

P   2. Respond to the needs of diverse audiences and contexts.

P   3. Build and manage relationships.

MA: Mathematics Outcomes:

    1. Use appropriate mathematics to solve problems.

    2. 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.

AL: Arts and Letters Outcomes

    1. Interpret and engage in the Arts & Letters, making use of the creative process to enrich the quality of life.

    2. Critically analyze values and ethics within range of human experience and expression to engage more fully in local and global issues.

SS: Social Science Outcomes

P   1. Apply analytical skills to social phenomena in order to understand human behavior.

P   2. Apply knowledge and experience to foster personal growth and better appreciate the diverse social world in which we live.

SC: Science or Computer Science Outcomes

    1. Gather, comprehend, and communicate scientific and technical information in order to explore ideas, models, and solutions and generate further questions.

    2. Apply scientific and technical modes of inquiry, individually, and collaboratively, to critically examine the influence of scientific and technical knowledge on human society and the environment.

    3. Assess the strengths and weaknesses of scientific studies and critically examine the influence of scientific and technical knowledge on human society and the environment.

Outcomes Assessment Strategies:

                     ✓ **Projects**
                     ✓ **Writing Assignments**

✓ **Presentations**

                     ✓ **Portfolios**

:

Major Topic Outline:

1. Developmentally Appropriate Curriculum for Infants and Toddlers
2. Designing infant and toddler learning environments
3. Early Learning Foundations.
4. Predominant curricular philosophies.
5. Planning to meet the needs of all children, including children who are dual language learners and children with special needs.
6. Integrating content knowledge into individual and group planning
7. Using homemade, found and recycled items.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**	
2. Produce renewable energy	**No**	
3. Prevent environmental degradation	**No**	
4. Clean up natural environment	**No**	
5. Supports green services	**No**	

Percent of course: 0%

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: EET - 112

 # Credits: 1

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 22
Lab (# of hours):
Total course hours: 22

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Electronic Equipment and Assembly I

Course Description:

This is the first course in a three course sequence. Focus is on building and testing simple DC prototype circuits. Covers DC power supplies, DMMs, breadboarding, resistor codes, and capacitor codes. Spreadsheets will be used to organize and analyze data.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Electronics Engineering Technology programs

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ **Fall**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Identify electronic components by markings and measurement,
2. build a prototype circuit,
3. measure DC voltage and current,
4. organize and analyze data using spreadsheet functions.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Resistor and Capacitor codes
2. Ohmmeter
3. Breadboarding
4. DMM for DC voltage and Current
5. Spreadsheet and simple spreadsheet formulas

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency		**No**
2. Produce renewable energy		**No**
3. Prevent environmental degradation		**No**
4. Clean up natural environment		**No**
5. Supports green services		**No**

Percent of course: 0%

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: EET - 127

 # Credits: 2

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 44
Lab (# of hours):
Total course hours: 44

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Semiconductor Circuits I

Course Description:

Introduction to the basic concepts of semiconductor devices. Various types of diodes and diode applications will be studied. Industry standard devices will be used.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Electronics Engineering Technology programs

Are there prerequisites to this course?

Yes

Pre-reqs: EET-142

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: MTH-112

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ **Fall**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Build, test, and troubleshoot diode circuits;
2. describe the operation of diodes,
3. describe the function of circuits containing diodes,
3. calculate critical parameters for diode circuits.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Semiconductor diodes,Light Emitting Diodes,Zener Diodes.
2. AC to DC power supply.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval

:

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Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: EET - 215

 # Credits: 3

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 66
Lab (# of hours):
Total course hours: 66

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Technical Mechanics

Course Description:

Introduction to mechanics. Covers theory of force, work, torque, energy, power, strength, and motion. Vectors and simple machines provide applications for these concepts.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): EET, IMT, RET

Are there prerequisites to this course?

Yes

Pre-reqs: MTH-080 or MTH-112 or EET-142

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Fall

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Describe the concepts of force, work, torque, and power;
2. calculate force, work, torque and power in various applications;
2. recognize and convert between SI and English units,
3. describe how simple machines function,
4. use appropriate tools to measure dimensions, force, work, torque, and power.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Work, Energy, Torque, and Power
2. Basic Mechanics
3. Simple Machines
4. Fasteners
5. SI and English Units

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval
:

Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: EET - 254

 # Credits: 3

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 66
Lab (# of hours):
Total course hours: 66

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Introduction to Microcontrollers

Course Description:

Introduction to processor architecture and microcontrollers. Internal structure, registers, busses, control unit. Clock, machine and instruction cycling timing, interrupts and DMA. Instruction set, mnemonics, functions, and assembly language programming. Interfacing to external memory and I/O on-chip peripherals.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Electronics Engineering Technology programs

Are there prerequisites to this course?

Yes

Pre-reqs: EET-157

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: EET-257

Requirements:

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Spring

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Demonstrate the operation of a micro-controller,
2. summarize internal structure, registers, busses, control units;
3. summarize clock, machine and instruction cycle timing, interrupts and DMA;
4. summarize instruction set, mnemonics, functions, and assembly language programming;
5. summarize interfacing to external memory and I/O on-chip peripherals.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Internal structure, registers, busses, control unit.
2. Clock, machine and instruction cycle timing, interrupts and DMA.
3. Instruction set, mnemonics, functions, and assembly language programming.
4. Interfacing to external memory and I/O on-chip peripherals.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**	
2. Produce renewable energy	**No**	
3. Prevent environmental degradation	**No**	
4. Clean up natural environment	**No**	
5. Supports green services	**No**	

Percent of course: 0%

First term to be offered:

Next available term after approval
:

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: EET - 257

 # Credits: 3

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 66
Lab (# of hours):
Total course hours: 66

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Digital Logic II

Course Description:

Bus systems and computer peripherals & systems using latches, registers, counters, and memory circuits are developed and analyzed.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Electronics Engineering Technology programs

Are there prerequisites to this course?

Yes

Pre-reqs: EET-157

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Winter

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Assemble, test, and troubleshoot circuits using digital logic gates and standard ICs;
2. explain operation of circuits containing synchronous and asynchronous logic.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Counters.
2. Bus systems.
3. Integrated logic circuits.
4. Shift registers and shift register counters.
5. Asynchronous logic.
6. Memory systems.
4. Flip-flops and latches.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: WAFE

Submitter

First Name: Jeff
Last Name: Ennenga
Phone: 3539
Email: jeff.ennenga

Course Prefix and Number: FRP - 294

 # Credits: 2

Contact hours

Lecture (# of hours): 21
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 21

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Intermediate Incident Command System (I-300)

Course Description:

This course focuses on ICS for supervisors in expanding incidents. ICS 300 outlines how the NIMS Command and Coordination component supports the management of expanding incidents as well as describes the incident management processes as prescribed by ICS. This course has a threaded activity that will give students the opportunity to practice implementing the incident management process and create an Incident Action Plan (IAP) for a simulated expanding incident.

Type of Course: Career Technical Supplementary

Can this course be repeated for credit in a degree?

No

What is the target audience/industry for this class?

Public Safety Professionals

Are there prerequisites to this course?

Yes

Pre-reqs: FRP-200 (I-100, I-200, IS-700, IS-800)

Have you consulted with the appropriate chair if the pre-req is in another program?
Yes (A 'Yes' certifies you have talked with the chair and have received approval.)*

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?
Yes (A 'Yes' certifies you have talked with the librarian and have received approval.)*

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Not every term

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

No

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Demonstrate the duties, responsibilities, and capabilities of an effective Incident Command System (ICS) in expanding incidents;
2. identify roles and reporting relationships under a Unified Command that involves agencies within the same jurisdiction and under multijurisdictional conditions;
3. develop incident objectives for a simulated incident;
4. create a written Incident Action Plan (IAP) for an incident/event using the appropriate ICS forms and supporting materials and use the IAP to conduct an Operational Period Briefing.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Incident Command System (ICS) fundamentals review.
2. Incident/event management and incident objectives.
3. Initial actions under Unified Command.
4. Implementing an Operational Planning Process.
5. Incident resource management.
6. Demobilization, transfer of command, and closeout.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**Yes**
4. Clean up natural environment	**Yes**
5. Supports green services	**No**

Percent of course: 50%

First term to be offered:

Next available term after approval
:

Clackamas Community College

Online Course/Outline Submission System

Section #1 General Course Information

Department: Science

Submitter

First Name: Greg
Last Name: Bostrom
Phone: 503-594-3464
Email: gregb@clackamas.edu

Course Prefix and Number: PH - 150

 # Credits: 3

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 33

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Preparatory Physics

Course Description:

This course is intended for students who have not completed high-school physics, but are intending to take either PH-201 or PH-211. Students will develop reasoning skills, and learn problem-solving strategies, measurement units, graph interpretation, and basic physics definitions needed for their General Physics courses.

Type of Course: Lower Division Collegiate

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

No

Are there prerequisites to this course?

Yes

Pre-reqs: Prerequisite or Corequisite: MTH-112 or placement in MTH-251

Have you consulted with the appropriate chair if the pre-req is in another program?
Yes (A 'Yes' certifies you have talked with the chair and have received approval.)*

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ Spring

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1.apply proven techniques/strategies to arrive at solutions to challenging problems;
2.apply specific study skills and methods which promote both a deep understanding and the organization of knowledge into a cohesive structure;
3.explain their reasoning for a solution and draw conclusions from principles and definitions using a logical sequence of definitions and principles;
4.apply their algebra and trigonometry skills to physical situations, and assign and interpret scientific meaning for mathematical variables and expressions;
5.explain measurements and unit conversions, and successfully convert between measurement units, especially the SI units of measure;
6.interpret graphs of physical/realistic variables, explain the relations between the variables, and describe the conceptual meanings of both the slope and the area under the curve.

This course does not include assessable General Education outcomes.

Major Topic Outline:

Units and measurements, graph interpretation, basic physics terms, definitions and algebraic representations, introduction to kinematics, strategies for problem solving and effective thinking.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

Section #2 Course 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 currently requires us to certify that at least one OUS school will accept a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these 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?

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 OUS schools will the course transfer to? (Check all that apply)

✓ **PSU (Portland State University)**

Identify comparable course(s) at OUS school(s)

How does it transfer? (Check all that apply)

✓ **general elective**
:

First term to be offered:

Specify term: Spring 2018

Course Number	Title	Implementation
EET-113	Electronic Equipment and Assembly II	2020/WI
EET-114	Electronic Equipment and Assembly III	2020/WI
EET-225	Mechatronics I	2020/WI
EET-235	Mechatronics II	2020/WI
FST-202	Principles of Emergency Services	2020/WI
FST-204	Fire Protection Systems	2020/WI
FST-206	Fire Behavior and Combustion	2020/WI
FST-212	Fire Prevention	2020/WI
FST-214	Building Construction for Fire Protection	2020/WI
FST-216	Principles of Fire and Emergency Services	2020/WI

Clackamas Community College

Online Course/Outline Submission System

Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: EET - 113

 # Credits: 1

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 22
Lab (# of hours):
Total course hours: 22

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Electronic Equipment and Assembly II

Course Description:

This is the second course in a three course sequence. Exploration of oscilloscope and function generator functions to create and measure time varying signals. Spreadsheets are used to analyze and plot experimental data. Create circuits using PCB software.

Type of Course: Career Technical Preparatory

Reason for the new course:

We are expanding our circuit design with PCB software and soldering as requested by the advisory board

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Electronics Engineering Technology

Are there prerequisites to this course?

Yes

Pre-reqs: EET-112

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: No

When do you plan to offer this course?

✓ Winter

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Measure circuit parameters involving a function generator and oscilloscope,
2. create plots using spreadsheet software,
3. design a simple circuit board with PCB software.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Function generator operation and limits
2. Oscilloscope functions and operation
3. Functions in spreadsheets
4. Plotting data in spreadsheets
5. PCB software layout and verification

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval
:

Clackamas Community College

Online Course/Outline Submission System

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Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: EET - 114

 # Credits: 1

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 22
Lab (# of hours):
Total course hours: 22

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Electronic Equipment and Assembly III

Course Description:

This is the third course in a three course sequence with a focus on soldering skills. Through-hole and SMT techniques will be introduced.

Type of Course: Career Technical Preparatory

Reason for the new course:

Expanding Soldering and PCB circuit assembly as recommended by advisory board

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Electronics Engineering Technology

Are there prerequisites to this course?

Yes

Pre-reqs: EET-113

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: No

When do you plan to offer this course?

✓ Spring

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

No

Will this course appear in the schedule?

No

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Safely use soldering equipment,
2. demonstrate through-hole soldering techniques,
3. demonstrate SMT soldering techniques.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Soldering tools
2. Through-hole soldering techniques
3. SMT soldering techniques
4. Testing and inspection of solder joints

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval
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Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: EET - 225

 # Credits: 2

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 44
Lab (# of hours):
Total course hours: 44

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Mechatronics I

Course Description:

This course explores automation of industrial systems. Students will study the fundamental components of industrial motion control, relay circuits, stepper and servo motors; and power transmission components.

Type of Course: Career Technical Preparatory

Reason for the new course:

New skills and technologies in the EET Field. This course idea is requested by the industry advisory committee

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Electronics Engineering Technology

Are there prerequisites to this course?

Yes

Pre-reqs: EET-215

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: No

When do you plan to offer this course?

✓ Winter

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Identify the components of commercial motion control systems,
2. create a schematic in relay ladder logic (RLL) for motor controls,
3. use schematics to correctly wire motor controls,
4. identify the operational differences between servo and stepper motors and select a control system for each type,
5. select and integrate linear motion and power transmission components to create an automated manufacturing system.

This course does not include assessable General Education outcomes.

Major Topic Outline:

Machine construction and power transmission
Linear guides and bearings
Lead screws and couplings
Rolling element bearings
Timing belts and pulleys
Relays and ladder logic for motor control
Servo and stepper motors
Overview of motion control systems
Basic relay circuits: Seal-in, H-bridge and E-stop

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval
:

Clackamas Community College

Online Course/Outline Submission System

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Section #1 General Course Information

Department: IDTD

Submitter

First Name: Mike
Last Name: Farrell
Phone: 1689
Email: mike.farrell

Course Prefix and Number: EET - 235

 # Credits: 2

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 44
Lab (# of hours):
Total course hours: 44

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Mechatronics II

Course Description:

This course expands on advanced electromechanical principles with applications in manufacturing and industrial systems. Students will study the applications of Proportional Integral Differential (PID) controllers for motion and process control and the electromechanical components that are integral to industrial machinery.

Type of Course: Career Technical Preparatory

Reason for the new course:

Expanding technology and employment requirements in EET field. This course is requested by Industrial board

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): EET

Are there prerequisites to this course?

Yes

Pre-reqs: EET-225

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: No

When do you plan to offer this course?

✓ Spring

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Analyze and select a commercial, PID controller for motion and process applications;
2. configure the controller parameters for several common applications,
3. interpret schematics to correctly install the components of motion control,
4. describe the relationship between the feedback loop and the controller,
5. identify the operating principle of absolute and incremental encoders and observer the signal on an oscilloscope,
6. select power transmission and process components to create an automated system.

This course does not include assessable General Education outcomes.

Major Topic Outline:

Commercial motion control system selection
Motors for motion applications
Incremental and absolute encoders
Linear motion dynamics and forces analysis
Elements of PID control
Power transmission components
Thermal system feedback and control

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: WAFE

Submitter

First Name: Jeff
Last Name: Ennenga
Phone: 3539
Email: jeff.ennenga

Course Prefix and Number: FST - 202

 # Credits: 3

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 33

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Principles of Emergency Services

Course Description:

This course provides an overview of fire protection and emergency services to include: career opportunities in fire protection and related fields, culture and history of emergency services, fire loss analysis, organization and function of public and private fire protection services, fire departments as a part of local government, laws and regulations affecting the fire service, fire service nomenclature, specific fire protection functions, basic fire chemistry and physics, introduction to fire protection systems, introduction to fire strategy and tactics and life safety initiatives. FESHE course code: C0273

Type of Course: Career Technical Preparatory

Reason for the new course:

The course will become part of a focus area for the Emergency Management Professional program.

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s):

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?
Yes (A 'Yes' certifies you have talked with the librarian and have received approval.)*

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: No

When do you plan to offer this course?

✓ Fall

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Analyze the basic components of fire as a chemical chain reaction as well as the major phases of fire,
2. examine the main factors that influence fire spread and fire behavior,
3. explain the scope, purpose and organizational structure of fire and emergency services;
4. define the role of national, state and local support organizations in fire and emergency services;
5. describe the common types of fire and emergency service facilities, equipment, and apparatus;
6. compare and contrast effective management concepts for various emergency situations,
7. develop the components of career preparation and goal setting,
8. demonstrate the importance of wellness and fitness as it relates to emergency services.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Careers in the Fire Protection/Emergency Services.
2. Fire Protection History.
3. The U.S Fire Problem: Life and Property.
4. Fire Investigation.
5. Code Enforcement.
6. Organization Structure of Fire and Emergency Services.
7. Fire Education.
8. Public Education.
9. Flammability and Characteristics of Solids, Liquids and Gases.
10. Fire Behavior.
11. Emergency Operations.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**Yes**

4. Clean up natural environment   **No**
5. Supports green services   **No**

Percent of course: 10%

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: WAFE

Submitter

First Name: Jeff
Last Name: Ennenga
Phone: 3539
Email: jeff.ennenga

Course Prefix and Number: FST - 204

 # Credits: 3

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 33

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Fire Protection Systems

Course Description:

This course provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers. FESHE course code: C0288

Type of Course: Career Technical Preparatory

Reason for the new course:

The course will become part of a focus area for the Emergency Management Professional program.

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s):

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?
Yes (A 'Yes' certifies you have talked with the librarian and have received approval.)*

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: No

When do you plan to offer this course?

✓ **Not every term**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Identify the different types, uses and benefits of fire protection systems found in various types of structures;
2. summarize the basic elements of a public water supply system as it relates to fire protection systems,
3. explain the operation and appropriate application for the different types of portable fire protection systems,
4. identify the different types and components of sprinkler, standpipe, and foam systems;
5. discuss residential and commercial sprinkler legislation,
6. compare the basic components and detectors in fire alarm system,
7. describe the hazards of smoke and list the four factors that can influence smoke movement in a building.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Fire Protection Systems.
2. Water Supply Systems.
3. Sources of Fire Protection Water Supply.
4. Distribution Networks, Piping and Hydrants.
5. Properties of Water.
6. Types of Sprinklers and Applications.
7. Standpipe Systems.
8. Foam Systems.
9. Water Mist Systems.
10. Fire Pumps; Types, Components and Operation.
11. Carbon Dioxide Systems.
12. Halogenated Systems.
13. Dry/Wet Chemical Extinguishing Systems.
14. Fire Alarms; Components, Types, Testing and Maintenance.
15. Smoke Management Systems.
16. Portable Fire Extinguishers.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	No
2. Produce renewable energy	No

3. Prevent environmental degradation **Yes**
4. Clean up natural environment **No**
5. Supports green services **No**

Percent of course: 10%

Next available term after approval
:

Clackamas Community College

Online Course/Outline Submission System

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Reject Publish

Section #1 General Course Information

Department: WAFE

Submitter

First Name: Jeff
Last Name: Ennenga
Phone: 3539
Email: jeff.ennenga

Course Prefix and Number: FST - 206

 # Credits: 3

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 33

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Fire Behavior and Combustion

Course Description:

This course explores the theories and fundamentals of how and why fires start, spread, and are controlled. FESHE course code: C0276

Type of Course: Career Technical Preparatory

Reason for the new course:

The course will become part of a focus area for the Emergency Management Professional program.

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

No

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?
Yes (A 'Yes' certifies you have talked with the librarian and have received approval.)*

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: No

When do you plan to offer this course?

✓ Not every term

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Identify physical properties of the three states of matter,
2. categorize the components of fire,
3. explain the physical and chemical properties of fire,
4. define and use basic terms and concepts associated with the chemistry and dynamics of fire;
5. discuss various materials and their relationship to fires as fuel,
6. explain the effect and dangers of air movement on the combustion process,
7. demonstrate knowledge of the characteristics of water as a fire suppression agent,
8. articulate other suppression agents and strategies and compare methods and techniques of fire extinguishments.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Matter and Energy.
2. The Atom and its Parts.
3. Chemical Symbols.
4. Forms of Energy.
5. Laws of Energy.
6. Units of Measurements.
7. Chemical Reactions.
8. Solutions and Solvents.
9. Compounds and Mixtures.
10. Characteristics of Fire, Solids, Liquids and Gases.
11. Heat and its Effects.
12. Properties of Solid Materials.
13. Fire Behavior and Phenomena.
14. Fire Extinguishment.
15. Extinguishing Agents.
16. Hazards by Classification Types.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**Yes**

4. Clean up natural environment   **No**

5. Supports green services   **No**

Percent of course: 10%

First term to be offered:

Next available term after approval
:

Clackamas Community College

Online Course/Outline Submission System

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Section #1 General Course Information

Department: WAFE

Submitter

First Name: Jeff
Last Name: Ennenga
Phone: 3539
Email: jeff.ennenga

Course Prefix and Number: FST - 212

 # Credits: 3

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 33

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Fire Prevention

Course Description:

This course provides fundamental knowledge relating to the field of fire prevention. Topics include: history and philosophy of fire prevention, organization and operation of fire prevention bureau, use and application of codes and standards, plans review, fire inspections, fire and life safety education and fire investigation. FESHE course code: C0286

Type of Course: Career Technical Preparatory

Reason for the new course:

The course will become part of a focus area for the Emergency Management Professional program.

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

No

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?
Yes (A 'Yes' certifies you have talked with the librarian and have received approval.)*

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: No

When do you plan to offer this course?

✓ Not every term

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Define the national fire problem and role of fire prevention,
2. identify and describe fire prevention organizations and associations,
3. define laws, rules, regulations, and codes, and identify those relevant to fire prevention of the authority having jurisdiction;
4. describe inspection practices and procedures,
5. identify and describe the standards for professional qualifications for Fire Marshal, Plans Examiner, Fire Inspector, Fire and Life Safety Educator, and Fire Investigator;
6. list opportunities in professional development for fire prevention personnel,
7. describe the history and philosophy of fire prevention.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Historical Overview of Fire Prevention.
2. Data Analysis/Geographic Information Systems.
3. Current Trends of Fire Prevention.
4. Fire Prevention Organizations and Associations.
5. Laws, rules, regulations and codes.
6. Fire prevention bureau functions.
7. Fire and life safety educations.
8. Code development and interpretation.
9. Enforcement and management.
10. Roles and responsibilities of fire prevention personnel.
11. Professional development.
12. National fire prevention development model.
13. Certification systems.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**Yes**
4. Clean up natural environment	**No**

5. Supports green services   **No**

Percent of course: 10%

First term to be offered:

Next available term after approval
:

Clackamas Community College

Online Course/Outline Submission System

Section #1 General Course Information

Department: WAFE

Submitter

First Name: Jeff
Last Name: Ennenga
Phone: 3539
Email: jeff.ennenga

Course Prefix and Number: FST - 214

 # Credits: 3

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 33

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Building Construction for Fire Protection

Course Description:

This course provides the components of building construction related to firefighter and life safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations and operating at emergencies. FESHE course code: C0275

Type of Course: Career Technical Preparatory

Reason for the new course:

The course will become part of a focus area for the Emergency Management Professional program.

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

No

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?
Yes (A 'Yes' certifies you have talked with the librarian and have received approval.)*

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: No

When do you plan to offer this course?

✓ Not every term

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Classify major types of building construction in accordance with a local model building code,
2. identify the function of each principle structural component in typical building design,
3. analyze the hazards and tactical considerations with the various types of building construction,
4. identify the indicators of potential structural failure as they relate to firefighter safety,
5. demonstrate the role of GIS as it relates to building construction,
6. describe building construction as it relates to firefighter safety, building codes, fire prevention, code inspection, firefighting strategy, and tactics;
7. classify occupancy designations of the building code,
8. understand theoretical concepts of how fire impacts major types of building construction.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. History of building construction.
2. Fire loss management and life safety.
3. Pre-fire planning.
4. Fire suppression strategies.
5. Principles of construction.
6. Effects of energy conservation.
7. Building and occupancy classifications.
8. Building construction; elements and types.
9. Structural design and construction methods.
10. Building system failures.
11. Fire Behavior versus Building Construction.
12. Modifications and Code Compliance.
13. Elevators.
14. HVAC Systems.
15. Vertical and Horizontal Extension of Fire and Smoke.
16. Structural Ventilation.
17. Structural Collapse.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**

3. Prevent environmental degradation   **Yes**
4. Clean up natural environment   **No**
5. Supports green services   **No**

Percent of course: 10%

First term to be offered:

Next available term after approval
:

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Section #1 General Course Information

Department: WAFE

Submitter

First Name: Jeff
Last Name: Ennenga
Phone: 3539
Email: jeff.ennenga

Course Prefix and Number: FST - 216

 # Credits: 3

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 33

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Principles of Fire and Emergency Services Safety and Survival

Course Description:

This course introduces the basic principles and history related to the national firefighter life safety initiatives focusing on the need for cultural and behavior change throughout the emergency services. FESHE course code: C0281

Type of Course: Career Technical Preparatory

Reason for the new course:

The course will become part of a focus area for the Emergency Management Professional program.

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

No

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?
Yes (A 'Yes' certifies you have talked with the librarian and have received approval.)*

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: No

When do you plan to offer this course?

✓ Not every term

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

No

Will this course appear in the schedule?

No

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Define and describe the need for cultural and behavioral change within the emergency services relating to safety, incorporating leadership, supervision, accountability, and personal responsibility;
2. define how the concepts of risk management affect strategic and tactical decision-making,
3. describe and evaluate circumstances that might constitute an unsafe act,
4. explain the concept of empowering all emergency services personnel to stop unsafe acts,
5. explain the vital role of local departments in national research and data collection systems;
6. explain the importance of investigating all near-misses, injuries, and fatalities;
7. describe the importance of public education as a critical component of life safety programs,
8. explain the importance of safety in the design of apparatus and equipment.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Organizational culture.
2. History of Line of Duty Deaths (LODD) and injuries statistics.
3. Defining the nature of the LODD problem.
4. NFPA and OSHA Standards.
5. Fire Data Collection.
6. Research and investigation of accidents.
7. Training certification and credentialing.
8. Apparatus and equipment.
9. Emergency response to emergency scenes.
10. Violent incidents.
11. Personal and Organizational Accountability.
12. Internal Investigations.
14. Risk Management.
15. Counseling and Psychological Support.
16. Emerging Technologies.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**Yes**

4. Clean up natural environment   **No**
5. Supports green services   **No**

Percent of course: 10%

First term to be offered:

Next available term after approval
:

Program Amendments

Program	Implementation
Accounting Clerk CC	2020/SU
Industrial Maintenance Technology AAS	2020/SU
Renewable Energy Technology AAS	2020/SU
AS Engineering - OIT Electrical	2020/SU
Electronics Engineering Technology AAS	2020/SU
Electronics Engineering Technology CC	2020/SU
Microelectronics Systems Technology AAS	2020/SU
Microelectronics Systems Technology CC	2020/SU

COMMUNITY COLLEGE PROGRAM AMENDMENT FORM
(For changes to State Approved Associate of Applied Science degree, AAS option and Certificate of Completion programs)

This form should be completed electronically and the boxes will expand to accommodate text.
Current instructions, forms, handouts and other useful resources are located at
http://www.ode.state.or.us/search/results/?id=231

College:	Clackamas Community College	Date	

CAREER LEARNING AREA

☐ Ag, Food & Natural Resource Systems	☐ Health Services
☐ Arts, Information & Communications	☐ Human Resources
√ Business & Management	☐ Industrial & Engineering Systems

PROGRAM INFORMATION

APPROVED Program Title *(For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232)*	APPROVED CIP Code			APPROVED Recognition Award	Current Credits
	6-digit CIP	7th digit	8th digit		
Parent AAS Title: **Accounting Assistant AAS**				☐ Associate of Applied Science (AAS) Degree	
Option Title**				☐ *OPTION* to AAS Degree	
Certificate Title: *Within* AAS Degree? √ Yes** ☐ No **Accounting Clerk**	52.0302	J	*	☐ CC1R Related Certificate (45-60 credits)	47-48

****Enter name of base degree in 'AAS Title' box**
LAST AMENDMENT APPROVED ON 05.17.19

TYPE OF PROGRAM AMENDMENT
(Check **ALL** That Apply)

☐ New Program++ ☐ Title Change for Program	☐ Curriculum Revision	☐ Revision in Program Credits
		Proposed Total Credits: 45-48
Proposed AAS Title:		
Proposed OPTION Title:		
Proposed Certificate Title:		
☐ *SUSPENSION* of Program	Reason for Suspension:	
Suspension Effective Date:		

CURRICULUM AMENDMENT

[List in a Defined Sequence of Courses Format, e.g., Quarter-to-quarter mapping.
For a New Program, complete the Proposed Curriculum section only.]

CURRENT CURRICULUM 19-20 [List entire curriculum as last approved)				PROPOSED CURRICULUM 20-21 [List only course(s) to be amended]			
Course	Title	Hours	Credits	Course	Title	Hours	Credits
First Term							
BA-101	Introduction to Business	44	4				
BA-104	**Business Math**	**33**	**3**				
BA-111	General Accounting I	44	4				
WR-121	**English Composition**	**44**	**4**				
Second Term							
BA-131	Introduction to Business Computing	44	4				
BA-156 Or EC-201	Business Forecasting Or Principles of Economics: MICRO	33-44	3-4				
BA-177	Payroll Accounting	33	3				
BA-211	Financial Accounting I	44	4		Move to Term 3		
				*BA-112	General Accounting II	44	4
Third Term							
BA-205	Business Communications with Technology	44	4		REMOVE		
BA-212	Financial Accounting II	44	4		REMOVE		
BA-228	Computerized Accounting	33	3				
BA-285	**Human Relations in Business**	**44**	**4**				
CS-135S	Microsoft Excel	33	3				
				BA-211	Financial Accounting I	44	4
				---	Program Electives		2-4
Accounting Clerk Program Electives							
				Any Business Administration (BA) or Business Technology (BT) course not included in the Accounting Clerk program.			
Catalog Notes							
Courses in this program can be applied to satisfy elective requirements in the Business AAS degree.							
				*BA-212 may be taken instead of BA-112. BA-112 is recommended for students who wish to study small business accounting, whereas BA-212 is corporate-focused.			
TOTAL *CURRENT* CREDITS:			47-48	**TOTAL *PROPOSED* CREDITS:**			45-48

College Contact	Dr. Joan San-Claire	Telephone No.	3013
E-Mail Address	joan.san-claire@clackamas.edu	Fax No.	
Chief Academic Officer *or* PTE Dean Signature		Date	

Oregon Department of Community Colleges and Workforce Development

255 Capitol Street NE
Salem, OR 97310-0203

Office of Educational Improvement & Innovation

Phone: (503) 378-3600
FAX: (503) 378-5156

COMMUNITY COLLEGE ASSOCIATE OF SCIENCE AREA OF EMPHASIS AMENDMENT FORM

This form should be completed electronically and the boxes will expand to accommodate text.

College:	Clackamas Community College	Date	10/29/19

CAREER LEARNING AREA

☐ **Ag, Food & Natural Resource Systems**	☐ **Health Services**
☐ **Arts, Information & Communications**	☐ **Human Resources**
☐ **Business & Management**	√ **Industrial & Engineering Systems**

PROGRAM INFORMATION

APPROVED **Program Title**	*APPROVED* **CIP Code** (Include 7th & 8th digits used for OCCURS reporting.)			*APPROVED* **Recognition Award**	**Current Credits**
	6-digit CIP	*7th digit*	*8th digit*		
AS Area of Emphasis Title: Engineering – Electrical Engineering				**Associate of Applied Science Area of Emphasis**	**102-104**
Partnering Institution Name Oregon Institute of Technology (Oregon Tech)					

Last amendment approved on 01.18.19

TYPE OF PROGRAM AMENDMENT
(Check **ALL** That Apply)

☐ **New Agreement**	☐ **Curriculum Revision**	☐ **Revision in Program Credits**	
		Proposed **Total Credits:**	**105-107**
☐ ***SUSPENSION* of Program**	*Reason for Suspension:*		
Suspension Effective Date:			

CURRICULUM AMENDMENT

[List in a Defined Sequence of Courses Format, e.g., Quarter-to-quarter mapping.
For a New Program, complete the Proposed Curriculum section only.]

CURRENT CURRICULUM 19-20 [List entire curriculum as last approved)				PROPOSED CURRICULUM 20-21 [List only course(s) to be amended]			
Course	Title	Hours	Credits	Course	Title	Hours	Credits
Program Requirements – 1st Year							
Fall Term							
CH-221	General Chemistry	77	5				
ENGR-111	Introduction to Engineering	33	3				
MTH-251	Calculus I	55	5				
WR-121	English Composition	44	4	Move to Spring Term, Year 1			
				CS-161	Computer Science I	44	4
Winter Term							
CH-222	General Chemistry	77	5				
CS-161	Computer Science I	44	4	Move to Fall Term, Year 1			
ENGR-171	Digital Logic	66	4				
MTH-252	Calculus II	55	5				
				ENGR-112	Engineering Programming	33	3
Spring Term							
COMM-111	Public Speaking	44	4				
ENGR-271	Digital Systems	66	4				
MTH-261	Linear Algebra	44	4				
WR-227	Technical Report Writing	44	4	Move to Summer Term			
				WR-121	English Composition	44	4
Summer Term							
--	Social Science Elective		3-4				
				WR-227	Technical Report Writing	44	4
Program Requirements – 2nd Year							
Fall Term							
ENGR-221	Electrical Circuit Analysis I	33	4				
MTH-254	Vector Calculus	55	5				
PH-211	General Physics with Calculus	70	5				
--	Humanities or Social Science Elective		3-4				
Winter Term							
ENGR-222	Electrical Circuit Analysis II	66	4				
MTH-256	Differential Equations	44	4				
PH-212	General Physics with Calculus	70	5				
WR-122	English Composition	44	4				
Spring Term							
ENGR-223	Electrical Circuit Analysis III	66	4				
MTH-253	Calculus III	55	5				
PH-213	General Physics with Calculus	70	5				
Electives							
Social Science Electives							
Choose courses from the following subjects: **ANT, EC, GEO, HST, PS, PSY, SOC, SSC, WS**							
Humanities Electives							
Choose courses from the following subjects: **ART, ASL** (200-level)**, ENG, FR** (200-level)**, GER** (200-level)**, HUM, MUS, PHL, R, SPN** (200-level)**, TA**							
TOTAL *CURRENT* CREDITS:			102-104	**TOTAL *PROPOSED* CREDITS:**			105-107

College Contact	Eric Lee		Telephone No.	6163
E-Mail Address	elee@clackamas.edu		Fax No.	
Chief Academic Officer *or* CTE Dean Signature			Date	10/29/19

Oregon Department of Community Colleges
and Workforce Development
255 Capitol Street NE
Salem, OR 97310-0203

Office of Educational Improvement & Innovation

Phone: (503) 378-3600
FAX: (503) 378-5156

COMMUNITY COLLEGE PROGRAM AMENDMENT FORM
(For changes to State Approved Associate of Applied Science degree, AAS option and Certificate of Completion programs)

This form should be completed electronically and the boxes will expand to accommodate text.
Current instructions, forms, handouts and other useful resources are located at
http://www.ode.state.or.us/search/results/?id=231

College:	Clackamas Community College	Date	

CAREER LEARNING AREA

☐ Ag, Food & Natural Resource Systems		☐ Health Services	
☐ Arts, Information & Communications		☐ Human Resources	
☐ Business & Management		☐ Industrial & Engineering Systems	

PROGRAM INFORMATION

APPROVED Program Title *(For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232)*	*APPROVED* CIP Code (Include 7th & 8th digits used for OCCURS reporting.)			*APPROVED* Recognition Award	Current Credits
	6-digit CIP	*7th digit*	*8th digit*		
AAS Title: Electronics Engineering Technology	**15.0303**			√ **AAS (90-108 credits)**	**104**
Option Title**				☐ *OPTION* to AAS Degree	
Related Certificates: Electronics Engineering Technology Certificate				☐ Certificate of Completion	

**Enter name of base degree in 'AAS Title' box

TYPE OF PROGRAM AMENDMENT
(Check **ALL** That Apply)

☐ **New Program++** ☐ **Title Change for Program**	☐ **Curriculum Revision**	☐ **Revision in Program Credits**
		Proposed Total Credits: **97-103**
Proposed AAS Title:		
Proposed OPTION Title:		
Proposed Certificate Title:		
☐ *SUSPENSION* of Program	Reason for Suspension:	
Suspension Effective Date:		

++If new program is an additional award for an existing degree or certificate, complete 'Program Information' section for existing program.

CURRICULUM AMENDMENT

[List in a Defined Sequence of Courses Format, e.g., Quarter-to-quarter mapping.
For a New Program, complete the Proposed Curriculum section only.]

CURRENT CURRICULUM 19-20 [List entire curriculum as last approved)				PROPOSED CURRICULUM 20-21 [List only course(s) to be amended]			
Course	Title	Hours	Credits	Course	Title	Hours	Credits
Electronics Engineering Technology Associate of Applied Science Degree: 1st Year							
First Term							
EET-112	Electronic Test Equipment & Soldering	66	3	EET-112	Electronic Equipment and Assembly I	22	1
EET-137	Electrical Fundamentals I	88	4				
MFG-109	Computer Literacy for Technicians	39	3	REMOVE			
MTH-095	**Algebra III**	**44**	**4**	REMOVE			
SM-150	Semiconductor Processing I	22	2				
WR-101*	**Communication Skills: Occupational Writing**	**33**	**3**	REMOVE			
				EET-139	Principles of Troubleshooting I	44	2
				EET-157	Digital Logic I	66	3
				WR-121	**English Composition**	**44**	**4**
Second Term							
EET-139	Principles of Troubleshooting I	44	2	Move to Term 1			
EET-141	Electrical Fundamentals II	88	4				
EET-157	Digital Logic I	66	3	Move to Term 1			
MTH-111	**College Algebra**	**55**	**5**				
--	**Human Relations requirement (see page 82)**		**3**	Move to Term 6			
				EET-113	Electronic Equipment and Assembly II	22	1
				EET-257	Digital Logic II	66	3
				IMT-120	Industrial Machinery I	66	3
Third Term							
EET-127	Semiconductor Circuits I	88	4	Move to Term 4			
EET-142	Electrical Fundamentals III	88	4				
EET-257	Digital Logic II	88	4	Move to Term 2			
MTH-112	Trigonometry and Pre-Calculus	55	5				
SM-280	Electronics & Microelectronics/CWE	72	2	Move to Term 6			
				EET-114	Electronic Equipment and Assembly III	22	1
				EET-254	Introduction to Microcontrollers	66	3
				IMT-223	Instrumentation & Controls	66	3
Electronic Engineering Technology Associate of Applied Science Degree: 2nd Year							

Fourth Term								
EET-227	Semiconductor Circuits II	66	3	Move to Term 5				
EET-239	Principles of Troubleshooting II	44	2					
IMT-215	Electromechanical Systems I	44	2	Remove				
MFG-107	**Industrial Safety & First Aid**	**33**	**3**					
PH-201**	General Physics	70	5	REMOVE				
				EET-127	Semiconductor Circuits I	44	2	
				HD-209	Job Search Skills	11	1	
				EET-215	Technical Mechanics	66	3	
				--	Electronics Engineering Technology program electives		3-5	
Fifth Term								
EET-250	Linear Circuits	66	3	Move to Term 6				
EET-252	Control Systems	66	3	Remove				
EET-254	Introduction to Microcontrollers	88	4	Move to Term 3				
MFG-209	Programming & Automation for Manufacturing	33	3					
PH-202**	General Physics	70	5	Remove				
				EET-225	Mechatronics I	44	2	
				EET-227	Semiconductor Circuits II	66	3	
				EET-233	Programmable Logic Controllers I	33	3	
				CDT-103 Or CDT-108A OR CDT-223	Computer-Aided Drafting I Or Introduction to SolidWorks Or Inventor Fundamentals	66	3	
				--	Electronics Engineering Technology program electives		3-5	
Sixth Term								
EET-230	Laser and Fiber Optics	33	3	Remove				
IMT-233	Programmable Logic Controllers I	33	3	Move to Term 5				
PH-203**	General Physics	70	5	Remove				
SM-280	Electronics & Microelectronics/CWE	72	2	SM-280	Electronics & Microelectronics/CWE	72	4	
--	Electronics Engineering Technology program electives		3	--	Electronics Engineering Technology program electives		3-5	
				EET-234	Programmable Logic Controllers II	33	3	
				EET-235	Mechatronics II	44	2	
				EET-250	Linear Circuits	66	3	

					--	**Human Relations requirement (see page 82, recommended PSY-101)**		**3**

Electronics Engineering Technology Program Electives:

Any course with a CDT, EET, MFG, MET, RET, SM, or WLD prefix not included in the Electronics Engineering Technology program.								

Electronics Engineering Technology Program Recommended Electives:

				MFG-219	Robotics	66	3
				MFG-140	Principles of Fluid Power	66	3
				CS-140	Introduction to Operating Systems	44	4
				CS-161	Computer Science I	44	4
				WR-227	Technical Report Writing	44	4
				MTH-251	Calculus I	55	5
				PH-211	General Physics with Calculus	70	5
				PH-212	General Physics with Calculus	70	5
				PH-213	General Physics with Calculus	70	5

Catalog Notes

*Substitute college transfer courses for these courses if you plan to continue your education at a higher education institution. It is recommended that you consult with a faculty advisor or staff member in Student Services for the transfer requirements of the specific advanced program or school. **The General Physics with Calculus series PHL-211/212/213 may be substituted.	PH-211, 212, 213 and MTH-251 are recommended for students who plan to transfer to Oregon Tech. Oregon Tech will also accept PH-201, 202, and 203. Students should contact Oregon Tech about transferability of these classes.

Oregon Tech Transfer Courses

The CCC Industrial Technology Department, in partnership with Oregon Tech, offers a number of transferable classes into Oregon Tech's Electronics Engineering Technology degree program. For information contact the Industrial Technology Department, 503-594-3318.				

TOTAL _CURRENT_ CREDITS:	104	**TOTAL _PROPOSED_ CREDITS:**	97-103

College Contact	Mike Farrell	**Telephone No.**	1689
E-Mail Address		**Fax No.**	
Chief Academic Officer _or_ PTE Dean Signature		**Date**	

Oregon Department of Community Colleges and Workforce Development	Office of Educational Improvement & Innovation
255 Capitol Street NE	Phone: (503) 378-3600
Salem, OR 97310-0203	FAX: (503) 378-5156

COMMUNITY COLLEGE PROGRAM AMENDMENT FORM
(For changes to State Approved Associate of Applied Science degree, AAS option and Certificate of Completion programs)

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http://www.ode.state.or.us/search/results/?id=231

College:	Clackamas Community College	Date	

CAREER LEARNING AREA

☐ Ag, Food & Natural Resource Systems	☐ Health Services
☐ Arts, Information & Communications	☐ Human Resources
☐ Business & Management	☐ Industrial & Engineering Systems

PROGRAM INFORMATION

APPROVED Program Title (For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232)	*APPROVED* CIP Code (Include 7th & 8th digits used for OCCURS reporting.)			*APPROVED* Recognition Award	*Current* Credits
	6-digit CIP	*7th digit*	*8th digit*		
AAS Title: **Electronics Engineering Technology AAS**				☐ Associate of Applied Science (AAS) Degree	
Option Title**				☐ *OPTION* to AAS Degree	
Certificate Title: *Within* AAS Degree? √ Yes** ☐ **No** **Electronics Engineering Technology**	**15.0303**			√ CC1R Related Certificate (45-60 credits)	**55**

****Enter name of base degree in 'AAS Title' box**

TYPE OF PROGRAM AMENDMENT
(Check **ALL** That Apply)

☐ New Program++ ☐ Title Change for Program	☐ **Curriculum Revision**	☐ **Revision in Program Credits**	
		Proposed **Total Credits:**	**48**
Proposed **AAS Title:**			
Proposed **OPTION Title:**			
Proposed **Certificate Title:**			
☐ **SUSPENSION** of Program	Reason for Suspension:		
Suspension Effective Date:			

++**If new program is an additional award for an existing degree or certificate, complete 'Program Information' section for existing program.**

CURRICULUM AMENDMENT

[List in a Defined Sequence of Courses Format, e.g., Quarter-to-quarter mapping.
For a New Program, complete the Proposed Curriculum section only.]

CURRENT CURRICULUM 19-20 [List entire curriculum as last approved)				PROPOSED CURRICULUM 20-21 [List only course(s) to be amended]			
Course Number	Course Title	Clock Hours	Credits	Course Number	Course Title	Clock Hours	Credits
First Term							
EET-112	Electronic Test Equipment & Soldering	66	3	EET-112	Electronics Equipment and Assembly I	22	1
EET-137	Electrical Fundamentals I	88	4				
MFG-109	Computer Literacy for Technicians	39	3	Remove			
MTH-095	**Algebra III**	**44**	**4**	Remove			
SM-150	Semiconductor Processing I	22	2				
WR-101*	**Communication Skills: Occupational Writing**	**33**	**3**	Remove			
				EET-139	Principles of Troubleshooting I	44	2
				EET-157	Digital Logic I	66	3
				WR-121	**English Composition**	**44**	**4**
Second Term							
EET-139	Principles of Troubleshooting I	44	2	Move to Term 1			
EET-141	Electrical Fundamentals II	88	4				
EET-157	Digital Logic I	66	3	Move to Term 1			
MTH-111	**College Algebra**	**55**	**5**				
--	**Human Relations requirement (see page 82)**		**3**	Move to Term 3			
				EET-113	Electronic Equipment and Assembly II	22	1
				EET-257	Digital Logic II	66	3
				IMT-120	Industrial Machinery I	66	3
Third Term							
EET-127	Semiconductor Circuits I	88	4	Remove			
EET-142	Electrical Fundamentals III	88	4				
EET-257	Digital Logic II	88	4	Move to Term 2			
MTH-112	Trigonometry and Pre-Calculus	55	5	Remove			
SM-280	Electronics & Microelectronics/CWE	72	2				
				EET-114	Electronic Equipment and Assembly III	22	1
				EET-254	Introduction to Microcontrollers	66	3
				IMT-223	Instrumentation & Controls	66	3

				--	**Human Relations requirement (see page 82, recommended PSY-101)**		**3**

Catalog Notes	
*Substitute college transfer courses for these courses if you plan to continue your education at a higher education institution. It is recommended that you consult with a faculty advisor or a staff member in Student Services for the transfer requirements of the specific advanced program or school.	Remove

Oregon Tech Transfer Courses					
The CCC Industrial Technology Department, in partnership with Oregon Tech, offers a number of transferable classes into Oregon Tech's Electronics Engineering Technology degree program. For information contact the Industrial Technology Department, 503-594-3318.					
TOTAL *CURRENT* CREDITS:	55	**TOTAL *PROPOSED* CREDITS:**			48

College Contact	Mike Farrell	Telephone No.	1689
E-Mail Address		Fax No.	
Chief Academic Officer *or* PTE Dean Signature		Date	

Oregon Department of Community Colleges and Workforce Development
255 Capitol Street NE
Salem, OR 97310-0203

Office of Educational Improvement & Innovation

Phone: (503) 378-3600
FAX: (503) 378-5156

COMMUNITY COLLEGE PROGRAM AMENDMENT FORM
(For changes to State Approved Associate of Applied Science degree, AAS option and Certificate of Completion programs)

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http://www.ode.state.or.us/search/results/?id=231

College:	Clackamas Community College	Date	

CAREER LEARNING AREA

☐ **Ag, Food & Natural Resource Systems**	☐ **Health Services**
☐ **Arts, Information & Communications**	☐ **Human Resources**
√ **Business & Management**	☐ **Industrial & Engineering Systems**

PROGRAM INFORMATION

APPROVED Program Title *(For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232)*	*APPROVED* CIP Code (Include 7th & 8th digits used for OCCURS reporting.)			*APPROVED* Recognition Award	Current Credits
	6-digit CIP	*7th digit*	*8th digit*		
AAS Title: Industrial Maintenance Technology				√ **AAS (90-108)**	**98**
Option Title**				☐ *OPTION* to AAS Degree	
Certificate Title: _Within_ **AAS Degree? ☐ Yes** ☐ No**				☐ **Certificate of Completion**	

****Enter name of base degree in 'AAS Title' box**
LAST AMENDMENT APPROVED ON 01/19/18

TYPE OF PROGRAM AMENDMENT
(Check **ALL** That Apply)

☐ **New Program**++ ☐ **Title Change for Program**	☐ **Curriculum Revision**	☐ **Revision in Program Credits**
		Proposed Total Credits:
Proposed **AAS Title:**		
Proposed **OPTION Title:**		
Proposed **Certificate Title:**		
☐ *SUSPENSION* **of Program**	*Reason for Suspension:*	
Suspension Effective Date:		

++**If new program is an additional award for an existing degree or certificate, complete 'Program Information' section for existing program.**

CURRICULUM AMENDMENT

[List in a Defined Sequence of Courses Format, e.g., Quarter-to-quarter mapping.
For a New Program, complete the Proposed Curriculum section only.]

CURRENT CURRICULUM 19-20 [List entire curriculum as last approved)				PROPOSED CURRICULUM 20-21 [List only course(s) to be amended]			
Course	**Title**	**Hours**	**Credits**	**Course**	**Title**	**Hours**	**Credits**
Industrial Maintenance Technology Associate of Applied Science Degree: 1st Year							
Fall Term							
IMT-104	Reading Schematics and Symbols	22	2				
MFG-103	Machining for Fabrication & Maintenance	66	3				
MFG-107	**Industrial Safety & First Aid**	**33**	**3**				
MFG-109	Computer Literacy for Technicians	39	3				
MFG-130	Basic Electricity I	33	3				
MTH-050	**Technical Mathematics I**	**44**	**4**				
Winter Term							
COMM-100	**Basic Speech Communication**	**33**	**3**				
EET-139 or IMT-139	Principles of Troubleshooting I Or Principles of Troubleshooting I	44	2				
IMT-120	Industrial Machinery I	66	3				
MFG-131	Basic Electricity II	33	3				
MFG-140	Principles of Fluid Power	66	3				
MTH-080	Technical Mathematics II	33	3				
Spring Term							
IMT-110	Preventative Maintenance	44	2				
MFG-132	Basic Electricity III	33	3				
MFG-221	Materials Science	66	3				
MFG-280	Manufacturing Technology/CWE	72	2				
WR-101	**Communication Skills: Occupational Writing**	**33**	**3**				
--	Technical Elective		3				
Industrial Maintenance Technology Associate of Applied Science Degree: 2nd Year							
Fall Term							
EET-239 or IMT-239	Principles of Troubleshooting II Or Principles of Troubleshooting II	44	2				
IMT-108	Rigging and Lifting	44	2				
IMT-215	Electromechanical Systems I	44	2				
IMT-220	Industrial Machinery II	66	3				

WLD-150	Welding Processes	88	4				
--	Technical Elective		3				
Winter Term							
CDT-103 or CDT-108A	Computer-Aided Drafting I or Introduction to SolidWorks	66	3				
IMT-223	Instrumentation & Controls	66	3				
IMT-225	Electromechanical Systems II	44	2				
IMT-233	Programmable Logic Controllers I	33	3	EET-233	Programmable Logic Controllers I	33	3
MFG-209	Programming & Automation for Manufacturing	33	3				
--	Technical Elective		3				
Spring Term							
IMT-234	Programmable Logic Controllers II	33	3	EET-234	Programmable Logic Controllers II	33	3
MET-170	Introduction to Manufacturing Processes	33	3				
MFG-219	Robotics	66	3				
MFG-280	Manufacturing Technology/CWE	72	2				
--	Technical Elective		3				
Industrial Maintenance Technology Program Electives							
Any course with a CDT, EET, GIS, MET, MFG, SM, or WLD prefix not included in the Industrial Maintenance Technology program or other technical course with approval.							
TOTAL *CURRENT* CREDITS:			98	**TOTAL *PROPOSED* CREDITS:**			

College Contact	Mike Mattson	**Telephone No.**	3322
E-Mail Address		**Fax No.**	
Chief Academic Officer *or* PTE Dean Signature		**Date**	

COMMUNITY COLLEGE PROGRAM AMENDMENT FORM
(For changes to State Approved Associate of Applied Science degree, AAS option and Certificate of Completion programs)

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College:	Clackamas Community College	Date	

CAREER LEARNING AREA

☐ **Ag, Food & Natural Resource Systems**		☐ **Health Services**	
☐ **Arts, Information & Communications**		☐ **Human Resources**	
☐ **Business & Management**		☐ **Industrial & Engineering Systems**	

PROGRAM INFORMATION

APPROVED Program Title *(For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232)*	*APPROVED* CIP Code (Include 7th & 8th digits used for OCCURS reporting.)			*APPROVED* Recognition Award	Current Credits
	6-digit CIP	*7th digit*	*8th digit*		
AAS Title: Microelectronics Systems Technology	**15.0612**			√ **AAS (90-108 credits)**	**100**
Option Title**				☐ *OPTION* to AAS Degree	
Related Certificates: Microelectronics Systems Technology Certificate				☐ Certificate of Completion	

****Enter name of base degree in 'AAS Title' box**
LAST AMENDMENT APPROVED ON 01/19/18

TYPE OF PROGRAM AMENDMENT
(Check **ALL** That Apply)

☐ **New Program++** ☐ **Title Change for Program**	☐ **Curriculum Revision**	☐ **Revision in Program Credits**
		Proposed Total Credits: **91**
Proposed AAS Title:		
Proposed OPTION Title:		
Proposed Certificate Title:		
☐ **SUSPENSION** of Program	*Reason for Suspension:*	
Suspension Effective Date:		

++If new program is an additional award for an existing degree or certificate, complete 'Program Information' section for existing program.

CURRICULUM AMENDMENT

[List in a Defined Sequence of Courses Format, e.g., Quarter-to-quarter mapping.
For a New Program, complete the Proposed Curriculum section only.]

CURRENT CURRICULUM 19-20 [List entire curriculum as last approved)				PROPOSED CURRICULUM 20-21 [List only course(s) to be amended]			
Course	**Title**	**Hours**	**Credits**	**Course**	**Title**	**Hours**	**Credits**
Microelectronics Systems Technology Associate of Applied Science Degree: 1st Year							
First Term							
EET-112	Electronic Test Equipment & Soldering	66	3	EET-112	Electronic Equipment and Assembly I	22	1
EET-137	Electrical Fundamentals I	88	4				
MFG-107	**Industrial Safety & First Aid**	**33**	**3**	Move to Term 2			
MFG-109	Computer Literacy for Technicians	39	3	REMOVE			
MTH-050*	**Technical Mathematics I**	**44**	**4**	REMOVE			
SM-150	Semiconductor Processing I	22	2				
WR-101*	**Communication Skills: Occupational Writing**	**33**	**3**	Move to Term 2			
				EET-139	Principles of Troubleshooting I	44	2
				EET-157	Digital Logic I	66	3
				MTH-095	**Algebra III**	**44**	**4**
Second Term							
EET-139	Principles of Troubleshooting I	44	2	Move to Term 1			
EET-141	Electrical Fundamentals II	88	4				
EET-157	Digital Logic I	66	3	Move to Term 1			
ESH-100	Environmental Regulations	22	2	Move to Term 5			
MTH-080*	Technical Mathematics II	33	3	REMOVEs			
SM-160	Semiconductor Processing II	22	2				
				EET-113	Electronic Equipment and Assembly II	22	1
				IMT-120	Industrial Machinery I	66	3
				MFG-107	**Industrial Safety & First Aid**	**33**	**3**
				WR-101*	**Communication Skills: Occupational Writing**	**33**	**3**
Third Term							
EET-127	Semiconductor Circuits I	88	4	Move to Term 4			
EET-142	Electrical Fundamentals III	88	4				
SM-170	Semiconductor Processing III	22	2				
SM-280	Electronics & Microelectronics/CWE	72	2				
--	Microelectronics Systems Technology program electives		3	REMOVE			

--	Human Relations requirement (see page 82)		3				
				EET-114	Electronic Equipment and Assembly III	22	1
				IMT-223	Instrumentation & Controls	66	3
Microelectronics Systems Technology Associate of Applied Science Degree: 2nd Year							
Fourth Term							
CH-104	Introductory Chemistry	77	5	Move to Term 6			
EET-239	Principles of Troubleshooting II	44	2				
IMT-104	Reading Schematics and Symbols	22	2				
IMT-215	Electromechanical Systems I	44	2	REMOVE			
--	Microelectronics Systems Technology program electives		3				
				EET-127	Semiconductor Circuits I	44	2
				EET-215	Technical Mechanics	66	3
				HD-209	Job Search Skills	11	1
Fifth Term							
EET-250	Linear circuits	66	3	Move to Term 6			
IMT-223	Instrumentation & Controls	66	3	Move to Term 3			
MFG-140	Principles of Fluid Power	66	3				
MFG-209	Programming & Automation for Manufacturing	33	3				
SM-136	Photolithography	22	2				
SM-280	Electronics & Microelectronics/CWE	72	2	Move to Term 6			
				EET-227	Semiconductor Circuits II	66	3
				EET-233	Programmable Logic Controllers I	33	3
				ESH-100	Environmental Regulations	22	2
Sixth Term							
EET-230	Laser and Fiber Optics	33	3	REMOVE			
IMT-233	Programmable Logic Controllers I	33	3	Move to Term 5			
SM-229	Vacuum Technology	22	2				
--	Microelectronics Systems Technology program electives		6	--	Microelectronics Systems Technology program electives		3
				CH-104	Introductory Chemistry	77	5
				EET-250	Linear circuits	66	3
				SM-280	Electronics & Microelectronics/CWE	72	2
Microelectronics Systems Technology Program Electives							

Any course with a CDT, EET, MFG, RET, SM, or WLD prefix not already in the Microelectronics Systems Technology program.	Any course with a CDT, EET, MFG, RET, SM, or WLD prefix not already in the Microelectronics Systems Technology program. Recommended Electives: MFG-219, EET-225, EET-235, CS-140, CDT-103
*Substitute college transfer courses for these courses if you plan to continue your education at a higher education institution. It is recommended that you consult with a faculty advisor or a staff member in Student Services for the transfer requirements of the specific advanced program or school.	

Oregon Tech Transfer Courses

The Industrial Technology Department, in cooperation with Oregon Tech, offers a number of transferable microelectronics classes into Oregon Tech's Electronics Engineering Technology degree program. For information contact the Industrial Technology Department, 503-594-3318.	

TOTAL *CURRENT* CREDITS:	100	TOTAL *PROPOSED* CREDITS:	91

College Contact	Industrial Technology Department	Telephone No.	3318
E-Mail Address		Fax No.	
Chief Academic Officer *or* PTE Dean Signature		Date	

Oregon Department of Community Colleges
 and Workforce Development
255 Capitol Street NE
Salem, OR 97310-0203

Office of Educational Improvement & Innovation

Phone: (503) 378-3600
FAX: (503) 378-5156

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College:	Clackamas Community College	Date	

CAREER LEARNING AREA

☐ Ag, Food & Natural Resource Systems	☐ Health Services
☐ Arts, Information & Communications	☐ Human Resources
☐ Business & Management	☐ Industrial & Engineering Systems

PROGRAM INFORMATION

APPROVED Program Title *(For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232)*	*APPROVED* CIP Code (Include 7th & 8th digits used for OCCURS reporting.)			*APPROVED* Recognition Award	Current Credits
	6-digit CIP	*7th digit*	*8th digit*		
AAS Title: **Microelectronics Systems Technology AAS**				☐ **Associate of Applied Science (AAS) Degree**	
Option Title**				☐ ***OPTION* to AAS Degree**	
Certificate Title: *Within* **AAS Degree? √ Yes** ☐ No** **Microelectronics Systems Technology**	**15.0612**			√ **CC1R Related Certificate (45-60 credits)**	**56**

**Enter name of base degree in 'AAS Title' box
LAST AMENDMENT APPROVED ON 01/19/18

TYPE OF PROGRAM AMENDMENT
(Check **ALL** That Apply)

☐ **New Program++** ☐ **Title Change for Program**	☐ **Curriculum Revision**	✓ **Revision in Program Credits**	
		Proposed **Total Credits:**	**47**
Proposed **AAS Title:**			
Proposed **OPTION Title:**			
Proposed **Certificate Title:**			
☐ ***SUSPENSION* of Program**	Reason for Suspension:		
Suspension Effective Date:			

++If new program is an additional award for an existing degree or certificate, complete 'Program Information' section for existing program.

CURRICULUM AMENDMENT

[List in a Defined Sequence of Courses Format, e.g., Quarter-to-quarter mapping.
For a New Program, complete the Proposed Curriculum section only.]

CURRENT CURRICULUM 19-20 [List entire curriculum as last approved)				PROPOSED CURRICULUM 20-21 [List only course(s) to be amended]			
Course	**Title**	**Hours**	**Credits**	**Course**	**Title**	**Hours**	**Credits**
First Term							
EET-112	Electronic Test Equipment & Soldering	66	3	EET-112	Electronic Equipment and Assembly I	22	1
EET-137	Electrical Fundamentals I	88	4				
MFG-107	Industrial Safety & First Aid	33	3	Move to Term 2			
MFG-109	Computer Literacy for Technicians	39	3	REMOVE			
MTH-050*	**Technical Mathematics I**	**44**	**4**	REMOVE			
SM-150	Semiconductor Processing I	22	2				
WR-101*	**Communication Skills: Occupational Writing**	**33**	**3**	Move to Term 2			
				EET-139	Principles of Troubleshooting I	44	2
				EET-157	Digital Logic I	66	3
				MTH-095	**Algebra III**	**44**	**4**
Second Term							
EET-139	Principles of Troubleshooting I	44	2	Move to Term 1			
EET-141	Electrical Fundamentals II	88	4				
EET-157	Digital Logic I	66	3	Move to Term 1			
ESH-100	Environmental Regulations	22	2	REMOVE			
MTH-080*	Technical Mathematics II	33	3	REMOVE			
SM-160	Semiconductor Processing II	22	2				
				EET-113	Electronic Equipment and Assembly II	22	1
				IMT-120	Industrial Machinery I	66	3
				MFG-107	Industrial Safety & First Aid	33	3
				WR-101*	**Communication Skills: Occupational Writing**	**33**	**3**
Third Term							
EET-127	Semiconductor Circuits I	88	4	REMOVE			
EET-142	Electrical Fundamentals III	88	4				
SM-170	Semiconductor Processing III	22	2				
SM-280	Electronics & Microelectronics/CWE	72	2				
--	Microelectronics Systems Technology program electives		3	REMOVE			

--	Human Relations requirement (see page 82)		3	--	Human Relations requirement (see page 82, recommended: PSY-101)		3
				EET-114	Electronic Equipment and Assembly III	22	1
				IMT-223	Instrumentation & Controls	66	3
Microelectronics Systems Technology Program Electives							
Any course with a CDT, EET, MFG, RET, SM, or WLD prefix not included in the Microelectronics Systems Technology program.				REMOVE			
*Substitute college transfer courses for these courses if you plan to continue your education at a higher education institution. It is recommended that you consult with a faculty advisor or a staff member in Student Services for the transfer requirements of the specific advanced program or school.				REMOVE			
Oregon Tech Transfer Courses							
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TOTAL _CURRENT_ CREDITS:			56	**TOTAL _PROPOSED_ CREDITS:**			47

College Contact	Industrial Technology Department	Telephone No.	3318
E-Mail Address		Fax No.	
Chief Academic Officer _or_ PTE Dean Signature		Date	

Oregon Department of Community Colleges
and Workforce Development

255 Capitol Street NE
Salem, OR 97310-0203

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College:	Clackamas Community College	Date	

CAREER LEARNING AREA

☐ **Ag, Food & Natural Resource Systems**	☐ **Health Services**
☐ **Arts, Information & Communications**	☐ **Human Resources**
☐ **Business & Management**	☐ **Industrial & Engineering Systems**

PROGRAM INFORMATION

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	6-digit CIP	*7th digit*	*8th digit*		
AAS Title: Renewable Energy Technology	**15.0303**			√ **AAS (90-108 credits)**	**97-98**
Option Title**				☐ *OPTION* to AAS Degree	
Related Certificates: Energy Systems Maintenance Technician CP Renewable Energy Technology Certificate				☐ **Certificate of Completion**	

**Enter name of base degree in 'AAS Title' box
LAST AMENDMENT APPROVED ON 01/19/18

TYPE OF PROGRAM AMENDMENT
(Check **ALL** That Apply)

☐ **New Program++** ☐ **Title Change for Program**	☐ **Curriculum Revision**	☐ **Revision in Program Credits**
		Proposed Total Credits:
Proposed **AAS Title:**		
Proposed **OPTION Title:**		
Proposed **Certificate Title:**		
☐ **SUSPENSION of Program**	*Reason for Suspension:*	
Suspension Effective Date:		

++If new program is an additional award for an existing degree or certificate, complete 'Program Information' section for existing program.

CURRICULUM AMENDMENT

[List in a Defined Sequence of Courses Format, e.g., Quarter-to-quarter mapping.
For a New Program, complete the Proposed Curriculum section only.]

CURRENT CURRICULUM 19-20 [List entire curriculum as last approved)				PROPOSED CURRICULUM 20-21 [List only course(s) to be amended]			
Course	**Title**	**Hours**	**Credits**	**Course**	**Title**	**Hours**	**Credits**
Renewable Energy Technology Associate of Applied Science Degree: 1st Year							
First Term							
MFG-109	Computer Literacy for Technicians	39	3				
MFG-130	Basic Electricity I	33	3				
MTH-050	**Technical Mathematics I**	**44**	**4**				
RET-200	Renewable Energy Systems	44	4				
RET-240	Alternative Fuels	88	4				
Second Term							
EET-139	Principles of Troubleshooting I	44	2				
MFG-107	**Industrial Safety & First Aid**	**33**	**3**				
MFG-131	Basic Electricity II	33	3				
MTH-080	Technical Mathematics II	33	3				
RET-209	Renewable Energy I: Energy Efficiency	66	3				
Third Term							
MET-170	Introduction to Manufacturing Processes	33	3				
MFG-103	Machining for Fabrication & Maintenance	66	3				
RET-211	Renewable Energy II: System Fundamentals	66	3				
RET-280	Renewable Energy/CWE	72	2				
WR-101	**Communication Skills: Occupational Writing**	**33**	**3**				
--	**Human Relations requirement (see page 82)**		**3**				
Renewable Energy Technology Associate of Applied Science Degree: 2nd Year							
Fourth Term							
EET-239	Principles of Troubleshooting II	44	2				
GEO-100 Or GEO-110 Or GEO-130 Or GIS-201	Introduction to Physical Geography or Cultural & Human Geography or Introduction to Environmental Geography or Introduction to Geographic Information Systems	44-66	3-4				

IMT-104	Reading Schematics and Symbols	22	2				
IMT-215	Electromechanical Systems I	44	2				
RET-213	Renewable Energy III: Installation & Maintenance	66	3				
--	Renewable Energy Technology program elective		3				
Fifth Term							
IMT-223	Instrumentation & Controls	66	3				
MFG-140	Principles of Fluid Power	66	3				
MFG-209	Programming & Automation for Manufacturing	33	3				
RET-215	Renewable Energy IV: Systems Design	66	3				
--	Renewable Energy Technology program elective		3				
Sixth Term							
IMT-233	Programmable Logic Controllers I	33	3	EET-233	Programmable Logic Controllers I	33	3
MFG-221	Materials Science	66	3				
RET-217	Renewable Energy Capstone Project	66	3				
RET-280	Renewable Energy/CWE	72	2				
WLD-150	Welding Processes	88	4				
--	Renewable Energy Technology program elective		3				
Renewable Energy Technology Program Electives							
Any course with a CDT, EET, ERM, GIS, MET, MFG, RET, SM, or WLD prefix not included in the Renewable Energy Technology Program.							
TOTAL *CURRENT* CREDITS:		97-98		**TOTAL *PROPOSED* CREDITS:**			

College Contact	Industrial Technology Department	Telephone No.	3318
E-Mail Address		Fax No.	
Chief Academic Officer *or* PTE Dean Signature		Date	