Curriculum Committee Agenda

December 2, 2022 (8-9:30am)

	Presenter	Action
1. Welcome and Introductions	**Chair**	
2. Approval of Minutes	**Chair**	Approval
3. Consent Agenda a. Course Number Changes b. Course Title Change c. Reviewed Outlines for Approval	**Chair**	Approval
4. Course and Program Approvals		
a. **Course Inactivations**		
a. SAR-103, 201, 202, 203	**Dan LoFaro**	Approval/23.SU
b. **Phlebotomy**	**Virginia Chambers**	
a. **New Courses:** PHB-110, 112, 115, 125, 130		Approval/23.WI
b. **New Program:** Phlebotomy CC		Approval/23.SU
c. **New Program: Part Time Welding Certificate**	**John Phelps**	Approval/23.SU
d. **AS Engineering Changes**	**Eric Lee**	
a. **Program Suspensions**		Approval/23.SU
i. AS, Energy Systems Engineering, OSU		
ii. AS, Engineering, George Fox		
b. **Program Amendments**		Approval/23.SU
i. AS, Biological Engineering, OSU		
ii. AS, Civil Engineering, OSU		
iii. AS, Civil Engineering, PSU		
iv. AS, Computer Engineering, PSU		
v. AS, Construction Engineering Management, OSU		
vi. AS, Ecological Engineering, OSU		
vii. AS, Electrical Engineering, PSU		
viii. AS, Environmental Engineering, OSU		
ix. AS, Environmental Engineering, PSU		
x. AS, Industrial/Manufacturing Engineering, OSU		
xi. AS, Mechanical Engineering, OSU		
xii. AS, Mechanical Engineering, PSU		
c. **New Program**		Approval/23.SU
i. AS, Architectural Engineering, OSU		
5. Old Business		
6. New Business		
7. Closing Comments		

Curriculum Committee Minutes

November 18, 2022 (8-9:30am)

Present: ASG (Aubrey Rine), Hillary Abbott, Dustin Bare, Nora Brodnicki, Rick Carino, Elizabeth Carney, Amanda Coffey, Megan Feagles (Recorder), Bev Forney, Sharron Furno, Sue Goff, Kerrie Hughes (Chair), Jason Kovac, Eric Lee, Kara Leonard, Mike Mattson, Patricia McFarland, Tracy Nelson, David Plotkin, Lisa Reynolds, Terrie Sanne, Charles Siegfried, Casey Sims, Tara Sprehe, Sarah Steidl, Dru Urbassik, Andrea Vergun, Helen Wand, Jim Wentworth-Plato (Alternate Chair)
Guests: Shelly Tracy
Absent: George Burgess, Armetta Burney, Dawn Hendricks, Laura Lundborg

1. **Welcome & Introductions**

2. **Approval of Minutes**
   a. Approval of the November 4, 2022 minutes

   Motion to approve, approved

3. **Consent Agenda**
   a. Course Number Changes
   b. Course Title Change
   c. Reviewed Outlines for Approval

   Motion to approve, approved

4. **Course and Program Approvals**
   a. **Course Inactivations**
      i. CS-202
         1. The Curriculum Office presented for Jen Miller
         2. PSU has removed this class from their Computer Science degree and will no longer be offering it starting next year. Inactivating the course will keep us aligned with PSU.

   Motion to approve, approved
   b. **Course Reactivations**
      i. AM-100
      ii. Shelly Tracy presented
      iii. This is a foundational class. This may part of an upcoming less-than-one-year certificate.

   Motion to approve, approved
   c. **New Courses**

      Bev Forney presented
      i. BA-127, BA-128
         1. BA-127 will replace BA-126. They will not be equated.
            a. The Project Management Advisory Board recognized this course as needing a refresh and clear focus on agile and change management.
         2. BA-128 will combine BA-122, BA-123, and BA-124 into one 4 credit course. This was a recommendation from the Project Management Advisory Board.
         3. How similar are our Project Management programs to other community colleges? Are students missing key course content through this potential consolidation?
            a. The Project Management Advisory Board has not yet compared our program and courses to other community colleges.

   Motion to approve, approved

5. **Old Business**
   a.

6. **New Business**
   a. Transfer Council Updates
      i. David Plotkin presented
      ii. Work has been focused on Common Course Numbering. Common Courses will have a Z at the end of the course number.
      iii. Vote on Common Course Numbering at the December 16th meeting.

iv. MTH-111 and MTH-112 could change from 5 credits to 4 credits.
v. COMM-100 could change from 3 credits to 4 credits.
vi. Why is there a separate Math and Statistics group? There are concerns that there may be a disconnect since these groups are separate and we don't have representation on the Math Sub-Committee.
    1. Some colleges have specialty faculty in these areas.
    2. Kelly Mercer has revised her sabbatical plans to include work on the Stats Common Course Numbering group.
vii. The Writing group was told that colleges have approval to add up to 25% more language to the description and student learning outcomes.
    1. The COMM group was specifically told they couldn't modify the course description, but they could add up to 25% more SLOs.
    2. David Plotkin will check this morning.

Current CRSE	Current Title	Current Hours	Current Credits	Proposed CRSE	Proposed Title	Proposed Hours	Proposed Credits
COMM-100	Basic Speech Communication	33	3	COMM-100Z	Introduction to Communication	44	4
COMM-111	Public Speaking	44	4	COMM-111Z	Public Speaking	44	4
COMM-218	Interpersonal Communication	44	4	COMM-218Z	Interpersonal Communication	44	4
MTH-105	Math in Society	44	4	MTH-105Z	Math in Society	44	4
MTH-111	College Algebra	55	5	MTH-111Z	Precalculus I: Functions	44	4
MTH-112	Trigonometry and Pre-Calculus	55	5	MTH-112Z	Precalculus II: Trigonometry	44	4
MTH-243	Statistics I	44	4	STAT-243Z	Elementary Statistics I	44	4
WR-121	English Composition	44	4	WR-121Z	Composition I	44	4
WR-122	English Composition	44	4	WR-122Z	Composition II	44	4
WR-227	Technical Report Writing	44	4	WR-227Z	Technical Writing	44	4

7. Closing Comments

a.

-Meeting Adjourned-

Next Meeting: December 2, 2022 (8-9:30am)

CONSENT AGENDA

December 2, 2022

1. Course Title Change

Course	Current Title	Proposed Title
ECE-239	Helping Children and Families Cope with Stress	Trauma-Informed Practices in Early Care and Education
ECE-239ES	Ayudar a los niños y las familias a afrontar el estrés	Prácticas informadas por el trauma en el cuidado y la educación de la primera infancia

2. Course Number Change

Course	Title	Proposed Course Number

3. Outlines Reviewed for Approval

Course	Title	Implementation
ECE-239	Trauma-Informed Practices in Early Care and Education	2023/WI
ECE-239ES	Prácticas informadas por el trauma en el cuidado y la educación de la primera infancia	2023/WI
HDF-247	Preschool Through Adolescent Child Development	2023/WI
HDF-247ES	Desarrollo y crecimiento en la niñez: preescolar hasta la adolescencia	2023/WI
WLD-111	Shielded Metal Arc Welding (Stick)	2023/WI
WLD-111A	Shielded Metal Arc Welding (Stick)	2023/WI
WLD-111B	Shielded Metal Arc Welding (Stick)	2023/WI
WLD-113	Gas Metal Arc Welding/Flux Core Arc Welding (Wirefeed)	2023/WI
WLD-113A	Gas Metal Arc Welding/Flux Core Arc Welding (Wirefeed)	2023/WI
WLD-113B	Gas Metal Arc Welding/Flux Core Arc Welding (Wirefeed)	2023/WI
WLD-115	Gas Tungsten Arc Welding (GTAW)	2023/WI
WLD-115A	Gas Tungsten Arc Welding (GTAW)	2023/WI
WLD-115B	Gas Tungsten Arc Welding (GTAW)	2023/WI

Clackamas Community College

Online Course/Outline Submission System

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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 - 239

 # 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: Trauma-Informed Practices in Early Care and Education

Course Description:

Develops knowledge and skills that support the learning and development of young children, birth to age 8, who have been adversely impacted by trauma. Explores types and symptoms of trauma, and emphasizes trauma-informed practices that can be applied in the child's home and school setting. Identifies available resources and recognized strategies for working collaboratively with families and other professionals.

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): Early Childhood Education & Family Studies 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?

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?

✓ Spring

Is this course equivalent to another?

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

Yes

Course Number: ECE-239ES Title: Prácticas informadas por el trauma en el cuidado y

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 structural inequities and trauma that adversely impacts children and families;
2. recognize the adverse impacts of trauma and stress on the learning and development of young children, birth to age eight;
3. describe how children's learning is shaped by their close relationships with adults and peers, economic conditions of families and communities, adverse and protective childhood experiences, and family and community characteristics;
4. identify and explain resources that support the care and education of young children adversely impacted by trauma;
5. collaborate with families, colleagues, and other professionals to support young children's learning and development;
6. identify ways to support and nurture children through times of stress, transition, loss and grief;
7. apply trauma-informed practices to support the learning and development of children, birth to age eight.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1.Types of structural inequities:
a.Income
b.Education
c.Housing
d.Health care
e.Race
f.Gender
g.Ableness
2.Types of trauma:
a.Early childhood trauma
b.Intergenerational
c.Acute
d.Chronic
e.Complex
f.Secondary
g.Vicarious
3.The adverse impacts of trauma on the learning and development of young children:
a.Adverse Childhood Experiences (ACES)
b.Initial 8 ACEs
c.Effects of ACEs on children,
4.Impact on the brain and child development:
a.Biology of trauma
b.Flight, fright, and freeze
c.Developmental domains
5.Symptoms of trauma:
a.Trouble forming relationships
b.Poor self-regulation
c.Negative thinking
d.Hypervigilance
e.Executive function challenges
f.Triggers

6.Resources that support the care and education of young children adversely impacted by trauma:
a.State agencies
b.Private practices
Infant/Toddler Mental Health Specialists
7.Approaches, methodologies, and tools
a.Ages & Stages Questionnaires (ASQ-3)
b.Ages & Stages Questionnaires: Social-Emotional (ASQ-SE)
c.Devereux Early Childhood Assessment (DECA)
d.Positive Behavioral Interventions and Supports (PBIS)
e.Conscious Discipline
f.Growth Mindset
g.Individualized Support Plans
8.Collaborate with families, colleagues, and other professionals to support young children's learning and development:
a.Affirm and respect families' cultures, religious beliefs, language(s), various structures of families and different beliefs about
parenting
b.Strengths-based approach
c.Initiate and sustain respectful partnerships
d.Effective communication
e.Professionalism
f.Use community resources to support children and families
9.Trauma-informed practices to support the learning and development of children, birth to age eight:
a.Supportive, respectful relationships with children and families
b.Utilize observation and documentation as tools
c.Antecedent Behavior Consequence (ABC) tool
d.Build on children's strengths, protective factors, and capacity for resilience
e.Safe and caring classroom culture
f.Responsive interactions
g.Predictable routines and rituals
h.Support for transition times
i.Art therapy and bibliotherapy
9.Trauma-informed environments
a.Culturally sensitive and relevant
b.Safe
c.Organized and clutter-free
d.Calm colors and soft lighting
e."Calm corner" (peace corner, Zen den, etc.)
f.Nature and pleasing textures
g.Pets
10.Self-care for teachers
a.Boundary setting
b.Modeling
c.Reflective practice

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 2023

Clackamas Community College

Online Course/Outline Submission System

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Section #1 General Course Information

Department: EHCJ

Submitter

First Name: Dawn
Last Name: Hendricks
Phone: 503-594-6158
Email: dawn.hendricks

Course Prefix and Number: ECE - 239ES

 # 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: Prácticas informadas por el trauma en el cuidado y la educación de la primera infancia

Course Description:

Desarrollar conocimientos y habilidades que apoyen el aprendizaje y el desarrollo de niños pequeños, desde el nacimiento hasta los 8 años, que han sido negativamente afectados por traumas. Explorar los tipos y síntomas del trauma, y hacer hincapié en las prácticas informadas por el trauma que pueden aplicarse en el hogar y el entorno escolar del niño. Identificar los recursos disponibles y las estrategias reconocidas para trabajar en colaboración con las familias y otros profesionales.

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)?

No

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

Yes

Name of degree(s) and/or certificate(s): A.A.S. in Early Childhood Education and 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?

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.

Yes

Course Number: ECE-239 Title: Trauma-Informed Practices in Early Care and Educa

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. identificar las desigualdades estructurales y los traumas que afectan negativamente a los niños y las familias;
2. reconocer las repercusiones negativas del trauma y el estrés sobre el aprendizaje y el desarrollo de niños pequeños, desde el nacimiento hasta los ocho años;
3. describir cómo el aprendizaje de los niños está determinado por sus relaciones cercanas con adultos y compañeros, las condiciones económicas de las familias y las comunidades, las experiencias infantiles adversas y protectoras, y las características de la familia y la comunidad;
4. identificar y explicar los recursos que apoyan el cuidado y la educación de niños pequeños afectados negativamente por traumas;
5. colaborar con las familias, los colegas y otros profesionales para apoyar el aprendizaje y el desarrollo de niños pequeños;
6. identificar formas de apoyar y educar a los niños en momentos de estrés, transición, pérdida y duelo;
7. aplicar prácticas informadas por el trauma para apoyar el aprendizaje y el desarrollo de niños, desde el nacimiento hasta los ocho años.

This course does not include assessable General Education outcomes.

Major Topic Outline:

Tipos de desigualdades estructurales:
• Ingresos
• Educación
• Vivienda
• Atención médica
• Raza
• Género
• Capacidad
Tipos de trauma:
• Traumas en la primera infancia
•Intergeneracionales
•Agudos
•Crónicos
•Complejos
•Secundarios
•Indirectos
Repercusiones negativas del trauma sobre el aprendizaje y el desarrollo de niños pequeños:
•Experiencias adversas en la infancia (ACE, por sus siglas en inglés)
•Las 8 ACE iniciales
•Efectos de las ACE en los niños
Impacto en el cerebro y el desarrollo del niño:
•Biología del trauma
•Huida, susto y paralización
•Áreas del desarrollo

Síntomas de trauma:
•Problemas para establecer relaciones
•Mala autorregulación
•Pensamiento negativo
•Hipervigilancia
•Problemas de la función ejecutiva
•Desencadenantes
Recursos para apoyar el cuidado y la educación de niños pequeños negativamente afectados por traumas:
•Organismos estatales
•Organismos privados
oEspecialistas en salud mental para bebés y niños pequeños
•Enfoques, metodologías y herramientas
oCuestionarios de edades y etapas (ASQ-3, por sus siglas en inglés)
oCuestionarios de edades y etapas: socioemocional (ASQ-SE, por sus siglas en inglés)
oEvaluación de la primera infancia de Devereux (DECA, por sus siglas en inglés)
oIntervenciones y apoyos de comportamiento positivo (PBIS, por sus siglas en inglés)
oDisciplina consciente
oMentalidad de crecimiento
oPlanes de apoyo individualizados
Colaborar con las familias, los colegas y otros profesionales para apoyar el aprendizaje y el desarrollo de niños pequeños:
•Afirmar y respetar las culturas de las familias, las creencias religiosas, los idiomas, las diversas estructuras familiares y las diferentes creencias sobre la crianza de los hijos
•Enfoque basado en las fortalezas
•Iniciar y mantener asociaciones respetuosas
•Comunicación efectiva
•Profesionalismo
•Utilizar los recursos de la comunidad para apoyar a los niños y las familias
Prácticas informadas por el trauma para apoyar el aprendizaje y el desarrollo de niños, desde el nacimiento hasta los ocho años:
•Relaciones de apoyo y respeto con los niños y las familias
•Utilizar la observación y la documentación como herramientas
•Herramienta Antecedente Comportamiento Consecuencia (ABC, por sus siglas en inglés)
•Aprovechar los puntos fuertes, los factores de protección y la capacidad de resiliencia de los niños
•Cultura de aula segura y afectuosa
•Interacciones receptivas
•Rutinas y rituales predecibles
•Apoyo en los momentos de transición
•Arteterapia y biblioterapia
Entornos informados por el trauma
•Sensibles y pertinentes desde el punto de vista cultural
•Seguros
•Organizados y sin desorden
•Colores tranquilos e iluminación suave
•"Rincón de la calma" (rincón de la paz, guarida zen, etc.)
•Naturaleza y texturas agradables
•Mascotas
Cuidado personal para los maestros
•Establecimiento de límites
•Modelado
•Práctica reflexiva

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:

Clackamas Community College

Online Course/Outline Submission System

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Section #1 General Course Information

Department: Education, Human Services & Criminal Justice

Submitter

First Name: Dawn
Last Name: Hendricks
Phone: 4158
Email: dawn.hendricks

Course Prefix and Number: HDF - 247

 # 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: Preschool Through Adolescent Child Development

Course Description:

This course focuses on principles of development in children three years old through adolescence, including physical, cognitive, language, and social and emotional growth. Explores major historical theories of child development and current research and practices. A focus on how culture, family dynamics, and socio-economic status impact growth and development are included.

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?

Yes

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

Are there prerequisites to this course?

Yes

Pre-reqs: HDF-225

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?

✓ Spring

Is this course equivalent to another?

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

Yes

Course Number: HDF-247ES Title: Desarrollo desde preescolar hasta la adolescencia.

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 and discuss current theories, research and emerging trends in the field of child development;
2. provide examples of major milestones in the physical, cognitive, language and socioemotional domains in children ages three through adolescence;
3. recognize examples of behaviors from the physical, cognitive, and socioemotional domains of development;
4. describe developmental, cultural and environmental factors that influence children's physical, cognitive, language and socioemotional development during early childhood through adolescence;
5. explain how culture and language impact development,
6. identify the components and benefits of executive functioning;
7. describe strategies to support development.

AAOT/ASOT GENERAL EDUCATION OUTCOMES

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.

3. Demonstrate appropriate reasoning in response to complex issues.

SP: Speech/Oral Communication Outcomes

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.

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**

✓ **Presentations**

✓ **Multiple Choice Test**

:

Major Topic Outline:

1. Physical development in early childhood
2. Cognitive development in early childhood
3. Social emotional development in early childhood
4. Physical development in middle childhood
5. Cognitive development in middle childhood
6. Social emotional development in middle childhood
7. Physical development in adolescence
8. Cognitive development in adolescence
9. Social emotional development in adolescence

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 2023

Clackamas Community College

Online Course/Outline Submission System

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Section #1 General Course Information

Department: EHCJ

Submitter

First Name: Dawn
Last Name: Hendricks
Phone: 503-594-6158
Email: dawn.hendricks

Course Prefix and Number: HDF - 247ES

 # 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: Desarrollo y crecimiento en la niñez: preescolar hasta la adolescencia

Course Description:

Este curso se enfoca en los principios del desarrollo en niños de tres años hasta la adolescencia, incluyendo el crecimiento, y la evolución física, cognitiva, social y emocional. Explora las principales teorías históricas del desarrollo infantil y las investigaciones y prácticas actuales. Se incluye un enfoque en cómo la cultura, la dinámica familiar y el estatus socioeconómico impactan el crecimiento y el desarrollo de los niños.

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)?

No

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

Yes

Name of degree(s) and/or certificate(s): A.A.S. in Early Childhood Education and Family Studies

Are there prerequisites to this course?

Yes

Pre-reqs: HDF-225ES

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.

Yes

Course Number: HDF-247 Title: Preschool Through Adolescent Child Development

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. identificar y discutir teorías actuales, investigaciones y tendencias emergentes en el campo del desarrollo infantil,
2. proporcionar ejemplos del proceso de crecimiento psicomotor importantes en los dominios físico, cognitivo, del lenguaje y socioemocional en niños de tres años hasta la adolescencia;
3. reconocer ejemplos de comportamientos de los dominios físico, cognitivo y socioemocional del desarrollo,
4. describir los factores del desarrollo, culturales y ambientales que influyen en el crecimiento físico, cognitivo, lingüístico y socioemocional de los niños desde la edad de tres años hasta la adolescencia;
5. explicar cómo la cultura y el lenguaje impactan el desarrollo,
6. identificar los componentes y los beneficios de la función ejecutiva;
7. describir estrategias para apoyar el desarrollo.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Desarrollo físico en la primera infancia
2. Desarrollo cognitivo en la primera infancia
3. Desarrollo social y emocional en la primera infancia
4. Infancia media – Desarrollo físico
5. Infancia media – Desarrollo cognitivo
6. Infancia media - Desarrollo social y emocional
7. Adolescencia -Desarrollo físico
8. Adolescencia - Desarrollo cognitivo
9. Adolescencia - Desarrollo social y emocional

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 2023

Clackamas Community College

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Section #1 General Course Information

Department: AUWD

Submitter

First Name: John
Last Name: Phelps
Phone: 6378
Email: johnp

Course Prefix and Number: WLD - 111

 # Credits: 8

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 176
Lab (# of hours):
Total course hours: 176

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: Shielded Metal Arc Welding (Stick)

Course Description:

Provides students with the opportunity to acquire knowledge and skills to set up and operate equipment to perform fillet and groove welds in all positions with the SMAW process. Oxy-fuel cutting, air carbon arc cutting and gouging will be covered. Welding codes, standards, and specifications will be reviewed. Variable Credit: 2-8 credits.

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): Welding 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?

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. work safely in an industrial environment around equipment and properly use Personal Protective Equipment (PPE);
2. set up and operate Shielded Metal Arc Welding (SMAW) equipment, and cutting/gouging equipment;
3. complete welds with SMAW (Shielded Metal Arc Welding) electrodes in the flat, horizontal, vertical, and overhead positions using proper welding techniques;
4. perform visual inspection based on basic welding standards to determine the quality of weld;
5. follow introductory-level blueprints to complete assigned welding projects;
6. recognize and be able to repair common SMAW (Shielded Metal Arc Welding) defects according to AWS and industry standards.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Class orientation, safety, and shop practices.
2. Safety, set up and operation of SMAW (Shielded Metal Arc Welding) equipment.
3. Safety, set up and operation of oxy fuel cutting using both manual and semi-automatic equipment.
4. Electrode selection and welding techniques.
5. Destructive and nondestructive testing.
6. Fillet welds all positions on steel.
7. Groove welds all positions on steel.
8. Welding procedures specifications and certification requirements.
9. Welding codes and standards.
10. Carbon arc cutting.

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

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Section #1 General Course Information

Department: AUWD

Submitter

First Name: John
Last Name: Phelps
Phone: 6378
Email: johnp

Course Prefix and Number: WLD - 111A

 # 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: Shielded Metal Arc Welding (Stick)

Course Description:

The first half of WLD-111 which provides the opportunity to acquire knowledge and skills to set up and operate equipment to perform fillet welds in flat and horizontal positions with the SMAW process. Oxy-fuel cutting, air carbon arc cutting and gouging will be covered.

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): Welding 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?

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. work safely in an industrial environment around equipment and properly use Personal Protective Equipment (PPE);
2. set up and operate Shielded Metal Arc Welding (SMAW) equipment, and cutting/gouging equipment;
3. complete welds with SMAW (Shielded Metal Arc Welding) electrodes in the flat, horizontal positions using proper welding techniques;
4. complete a progress chart of groove welds with SMAW (Shielded Metal Arc Welding) electrodes in the flat position using proper welding techniques;
5. follow introductory-level blueprints to complete assigned welding projects;
6. perform visual inspection based on basic welding standards to determine the quality of weld;
7. recognize and be able to repair common SMAW (Shielded Metal Arc Welding) defects according to AWS and industry standards.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Class orientation, safety, and shop practices.
2. Safety, set up and operation of SMAW (Shielded Metal Arc Welding) equipment.
3. Safety, set up and operation of oxy fuel cutting using both manual and semi-automatic equipment.
4. Electrode selection and welding techniques.
5. Fillet welds flat and horizontal positions on steel.
6. Flat groove weld on steel.
7. Safety, set up and operation of Carbon arc cutting.

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: AUWD

Submitter

First Name: John
Last Name: Phelps
Phone: 6378
Email: johnp

Course Prefix and Number: WLD - 111B

 # 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: Shielded Metal Arc Welding (Stick)

Course Description:

The second half of WLD-111 which provides the opportunity to acquire additional knowledge and skills needed to perform more advanced fillet and groove welds in vertical and overhead positions with the SMAW process. Welding codes, standards, and specifications will be reviewed.

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): Welding AAS

Are there prerequisites to this course?

Yes

Pre-reqs: WLD-111A

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. work safely in an industrial environment around equipment and properly use Personal Protective Equipment (PPE);
2. set up and operate Shielded Metal Arc Welding (SMAW) equipment, and cutting/gouging equipment;
3. complete welds with SMAW (Shielded Metal Arc Welding) electrodes in the vertical and overhead positions using proper welding techniques;
4. complete a progress chart of groove welds with SMAW (Shielded Metal Arc Welding) electrodes in the horizontal, vertical, and overhead positions using proper welding techniques;
5. perform visual inspection based on basic welding standards to determine the quality of weld;
6. follow introductory-level blueprints to complete assigned welding projects;
7. recognize and be able to repair common SMAW (Shielded Metal Arc Welding) defects according to AWS and industry standards.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Class orientation, safety, and shop practices.
2. Electrode selection and welding Techniques for horizontal, vertical, and overhead welding.
3. Destructive and nondestructive testing.
4. Fillet welds in the vertical and overhead positions on steel.
5. Welding procedures specifications and certification requirements.
6. Groove welds on steel in the horizontal, vertical, and overhead positions.
7. Welding codes and standards.
8. Carbon arc cutting.

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:

Clackamas Community College

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Section #1 General Course Information

Department: AUWD

Submitter

First Name: John
Last Name: Phelps
Phone: 6378
Email: johnp

Course Prefix and Number: WLD - 113

 # Credits: 8

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 176
Lab (# of hours):
Total course hours: 176

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: Gas Metal Arc Welding/Flux Core Arc Welding (Wirefeed)

Course Description:

Provides students with the opportunity to acquire knowledge and skills to set up and operate equipment to perform fillet and groove welds in all positions with the Gas Metal Arc and Flux Core Arc Welding processes. Oxy-fuel cutting, and air carbon arc cutting and gouging will be covered. Welding codes, standards and specifications will be reviewed. Variable Credit: 1-8 credits.

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): Welding 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?

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. work safely in an industrial environment around equipment and properly use Personal Protective Equipment (PPE);
2. set up and operate Gas Metal Arc Welding (GMAW) / Flux Core arc Welding (FCAW) equipment, and cutting/gouging equipment;
3. complete welds with Gas Metal Arc Welding (GMAW) & Flux Core arc Welding (FCAW) in the flat, horizontal, vertical and overhead positions using proper welding techniques;
4. perform visual inspection based on basic welding standards to determine the quality of weld;
5. follow introductory-level blueprints to complete assigned welding projects;
6. recognize and be able to repair common Gas Metal Arc Welding (GMAW) & Flux Core arc Welding (FCAW) defects according to AWS and industry standards.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Class orientation, safety, and shop practices.
2. Safety, set up and operation of GMAW (Gas Metal Arc Welding) equipment.
3. Safety, set up and operation of oxy fuel cutting, using both manual and semi-automatic equipment.
4. Safety, set up and operation of FCAW (Flux Corel Arc Welding) equipment.
5. Destructive and Nondestructive testing.
6. Fillet welds all positions on steel.
7. Groove welds all positions on steel.
8. Welding Procedures specifications and certification requirements.
9. Welding codes and standards.
10. Carbon arc cutting.
11. Safety, set up and operation of plasma cutting equipment.

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

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Section #1 General Course Information

Department: AUWD

Submitter

First Name: John
Last Name: Phelps
Phone: 6378
Email: johnp

Course Prefix and Number: WLD - 113A

 # 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: Gas Metal Arc Welding/Flux Core Arc Welding (Wirefeed)

Course Description:

The first half of WLD-113 which provides the opportunity to acquire knowledge and skills to set up and operate equipment to perform fillet welds in flat and horizontal positions with the Gas Metal Arc and Flux Core Arc Welding processes. Oxy-fuel cutting, air carbon arc cutting and gouging will be covered.

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): Welding 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?

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. work safely in an industrial environment around equipment and properly use Personal Protective Equipment (PPE) ;
2. set up and operate Gas Metal Arc Welding (GMAW) / Flux Core arc Welding (FCAW) equipment, and cutting/gouging equipment;
3. complete welds with Gas Metal Arc Welding (GMAW) & Flux Core arc Welding (FCAW) in the flat and horizontal positions using proper welding techniques;
4. perform visual inspection based on basic welding standards to determine the quality of weld;
5. complete a progress chart of groove welds with Gas Metal Arc Welding (GMAW) & Flux Core arc Welding (FCAW) in the flat position using proper welding techniques;
6. follow introductory-level blueprints to complete assigned welding projects;
7. recognize and be able to repair common Gas Metal Arc Welding (GMAW) & Flux Core arc Welding (FCAW) defects according to AWS and industry standards.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Class orientation, safety, and shop practices.
2. Safety, set up and operation of GMAW (Gas Metal Arc Welding) equipment.
3. Safety, set up and operation of oxy fuel cutting, using both manual and semi-automatic equipment.
4. Electrode selection and welding Techniques.
5. Fillet welds in the flat and horizontal positions on steel.
6. Flat groove welds on steel.
7. Safety, set up and operation of Carbon arc cutting.
8. Safety, set up and operation of plasma cutting equipment.

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: AUWD

Submitter

First Name: John
Last Name: Phelps
Phone: 6378
Email: johnp

Course Prefix and Number: WLD - 113B

 # 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: Gas Metal Arc Welding/Flux Core Arc Welding (Wirefeed)

Course Description:

The second half of WLD-113 which provides the opportunity to acquire additional knowledge and skills needed to perform more advanced fillet and groove welds in vertical and overhead positions with the Gas Metal Arc and Flux Core Arc Welding processes. Welding codes, standards, and specifications will be reviewed.

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): Welding AAS

Are there prerequisites to this course?

Yes

Pre-reqs: WLD-113A

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. work safely in an industrial environment around equipment and properly use Personal Protective Equipment (PPE);
2. set up and operate Gas Metal Arc Welding (GMAW) / Flux Core arc Welding (FCAW) equipment, and cutting/gouging equipment;
3. complete welds with Gas Metal Arc Welding (GMAW) & Flux Core arc Welding (FCAW) in the vertical and overhead positions using proper welding techniques;
4. perform visual inspection based on basic welding standards to determine the quality of weld;
5. complete a progress chart of groove welds with Gas Metal Arc Welding (GMAW) & Flux Core arc Welding (FCAW) in the horizontal, vertical, and overhead positions using proper welding techniques;
6. follow introductory-level blueprints to complete assigned welding projects;
7. recognize and be able to repair common Gas Metal Arc Welding (GMAW) & Flux Core arc Welding (FCAW) defects according to AWS and industry standards.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Class orientation, safety, and shop practices.
2. Electrode selection and welding Techniques for horizontal, vertical, and overhead welding.
3. Destructive and Nondestructive testing.
4. Fillet welds in the vertical and overhead positions on steel.
5. Welding Procedure Specifications and certification requirements.
6. Groove welds on steel in the horizontal, vertical, and overhead positions.
7. Welding codes and standards.
8. Carbon arc cutting.

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%

Clackamas Community College

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Section #1 General Course Information

Department: AUWD

Submitter

First Name: John
Last Name: Phelps
Phone: 6378
Email: johnp

Course Prefix and Number: WLD - 115

 # Credits: 8

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 176
Lab (# of hours):
Total course hours: 176

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: Gas Tungsten Arc Welding (GTAW)

Course Description:

Provides students with the opportunity to acquire knowledge and skills to set up and operate equipment to perform fillet and groove welds in all positions with the Gas Tungsten Arc Welding process. Plasma arc cutting will be covered. Welding codes, standards, and specifications will be reviewed. Variable Credit: 1-8 credits.

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): Welding 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?

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. work safely in an industrial environment around equipment and properly use Personal Protective Equipment (PPE);
2. set up and operate GTAW (Gas Tungsten Arc Welding) equipment, sheet metal shear, and cutting/gouging equipment;
3. complete welds with GTAW (Gas Tungsten Arc Welding) electrodes in the flat, horizontal, vertical and overhead positions using proper welding techniques;
4. perform visual inspection based on basic welding standards to determine the quality of weld;
5. follow introductory-level blueprints to complete assigned welding projects;
6. recognize and be able to repair common GTAW (Gas Tungsten Arc Welding) defects according to AWS and industry standards.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Class orientation, safety, and shop practices.
2. Safety, set up and operation of GTAW (Gas Tungsten Arc Welding) equipment.
3. Safety, set up and operation of PAC (Plasma Arc Cutting) equipment.
4. Filler Metal selection and welding techniques.
5. Destructive and Nondestructive testing.
6. Fillet welds all positions on steel, stainless steel, and aluminum.
7. WPS (Welding Procedures Specifications) and certification requirements.
8. Groove welds all positions on steel, stainless steel, and aluminum.
9. Welding codes and standards.
10. Safety, set up and operation of sheet metal shear.

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: 5%

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: AUWD

Submitter

First Name: John
Last Name: Phelps
Phone: 6378
Email: johnp

Course Prefix and Number: WLD - 115A

 # 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: Gas Tungsten Arc Welding (GTAW)

Course Description:

The first half of WLD-115 which provides the opportunity to acquire knowledge and skills to set up and operate equipment to perform fillet welds in flat and horizontal positions with the Gas Tungsten Arc Welding (GTAW) process. Plasma arc cutting will be covered.

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): Welding 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?

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. work safely in an industrial environment around equipment and properly use Personal Protective Equipment (PPE);
2. set up and operate GTAW (Gas Tungsten Arc Welding) equipment, sheet metal shear, and cutting/gouging equipment;
3. complete welds with GTAW (Gas Tungsten Arc Welding) electrodes in the flat and horizontal positions using proper welding techniques;
4. complete a progress chart of groove welds with Gas Tungsten Arc Welding (GTAW) electrodes in the flat position using proper welding techniques;
5. follow introductory-level blueprints to complete assigned welding projects;
6. perform visual inspection based on basic welding standards to determine the quality of weld;
7. recognize and be able to repair common GTAW (Gas Tungsten Arc Welding) defects according to AWS and industry standards.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Class orientation, safety, and shop practices.
2. Safety, set up and operation of Gas Tungsten Arc Welding (GTAW) equipment.
3. Safety, set up and operation of Plasma Arc Cutting (PAC) using both manual and semi-automatic equipment.
4. Filler metal selection and welding techniques for flat and horizontal welds.
5. Flat and horizontal fillet welds on steel, stainless steel, and aluminum.
6. Flat groove weld on steel, stainless steel, and aluminum.
7. Safety, set up and operation of sheet metal shear.

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: AUWD

Submitter

First Name: John
Last Name: Phelps
Phone: 6378
Email: johnp

Course Prefix and Number: WLD - 115B

 # 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: Gas Tungsten Arc Welding (GTAW)

Course Description:

The second half of WLD-115 which provides the opportunity to acquire additional knowledge and skills needed to perform more advanced fillet and groove welds in vertical and overhead positions with the Gas Tungsten Arc Welding process. Welding codes, standards, and specifications will be reviewed.

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): Welding AAS

Are there prerequisites to this course?

Yes

Pre-reqs: WLD-115A

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. work safely in an industrial environment around equipment and properly use Personal Protective Equipment (PPE);
2. set up and operate GTAW (Gas Tungsten Arc Welding) equipment, sheet metal shear, and cutting/gouging equipment;
3. complete welds with GTAW (Gas Tungsten Arc Welding) electrodes in the vertical and overhead positions using proper welding techniques;
4. perform visual inspection based on basic welding standards to determine the quality of weld;
5. complete a progress chart of groove welds with Gas Tungsten Arc Welding (GTAW) electrodes in the horizontal, vertical, and overhead positions using proper welding techniques;
6. follow introductory-level blueprints to complete assigned welding projects;
7. recognize and be able to repair common GTAW (Gas Tungsten Arc Welding) defects according to AWS and industry standards.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Class orientation, safety, and shop practices.
2. Filler metal selection and welding techniques for horizontal, vertical, and overhead welding.
3. Destructive and Nondestructive testing.
4. Vertical and overhead fillet welds on steel, stainless steel, and aluminum.
5. WPS (Welding Procedures Specifications) and certification requirements.
6. Horizontal, vertical, and overhead groove welds on steel, stainless steel, and aluminum.
7. Welding codes and standards.
8. Operation of sheet metal shear.

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%

Clackamas Community College

Course Inactivations

December 2, 2022

Course Number	Title	Implementation
SAR-103	Rappelling and Self Rescue	2023/SU
SAR-201	Technical Rope Rescue: Operations Level	2023/SU
SAR-202	Technical Rope Rescue: Technician Level	2023/SU
SAR-203	Technical Rope Rescue: Advanced/Specialist	2023/SU

Clackamas Community College

Online Course/Outline Submission System

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Date approved: June 7, 2019 Certified General Education Area(s): None

Section #1 General Course Information

Department: WLDF

Submitter

First Name: Jeff
Last Name: Ennenga
Phone: 3539
Email: jeff.ennenga

Course Prefix and Number: SAR - 103

 # 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: Rappelling and Self Rescue

Course Description:

The course covers the skills and techniques required to safely leave a vertical realm in an emergency. Students will be introduced to rappelling, self and partner rescue in sport climbing which includes planning and anticipating potential challenges throughout the rescue. Students will learn the skill and technique differences between personal and partner rescue through theoretical and hands-on practice in several systems.

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)?

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?

Yes

Student Learning Outcomes:

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

1.assess a rescue problem and articulate a rescue plan for responding;
2.provide rationale for rescue plan with this situation and potential issues if used;
3.evaluate advantages and disadvantages for incorporated and independent partner rescues;
4.apply rescue concepts to multiple rescue scenarios successfully.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1.Types of commonly encountered sport climbing problems and emergencies
2.Load release systems
3.Mechanical advantage system
4.Partner care
5.Equipment substitutes
6.Lowering systems
7.Raising 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	**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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Date approved: June 1, 2018 Certified General Education Area(s): None

Section #1 General Course Information

Department: WLDF

Submitter

First Name: Jeff
Last Name: Ennenga
Phone: 3539
Email: jeff.ennenga

Course Prefix and Number: SAR - 201

 # Credits: 1

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 24
Lab (# of hours):
Total course hours: 24

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 Rope Rescue: Operations Level

Course Description:

This course provides students with the fundamentals of rope rescue in the low-angel environment. Students learn and practice skills pre-planning and size-up of rope rescue operations, knots, anchor systems, belay operations, ascending and descending lines, mechanical advantage systems, patient packaging & litter attending. Students learn how to safely navigate low-angle or over-the-bank rescue situations and assist rescuers in high-angle environments. Completion of the TRR:OL class satisfies the requirements in NFPA 1670 and 1006 for Technical Rope Technician level training and is recognized by Oregon DPSST.

Type of Course: Career Technical Preparatory

Reason for the new course:

Developing a new Search and Rescue program to include technical rope and swiftwater rescue.

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: Prerequisite or Corequisite: SAR-102

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: 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?

Yes

Student Learning Outcomes:

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

1.evaluate a rescue scenario and preform a scene size-up,
2.summarize NFPA and applicable standards for rescue and recovery standards,
3.use knot craft and equipment to create main and belay systems with variable friction devices and mechanical advantage systems,
4.use dressed knot construction to properly tie 8 knots, hitches and bends for rescue,
5.demonstrate personal ascent and descent on low angle terrain.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1.Standards and rescue philosophy
2.Personal, team and scene safety
3.Common mechanical advantage
4.Proper use of knots in systems
5.Belay and main systems
6.Tending the litter
7.Personal rappelling and low angle ascending skills
8.Anchor 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	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course: 0%

First term to be offered:

Clackamas Community College

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Date approved: June 1, 2018 Certified General Education Area(s): None

Section #1 General Course Information

Department: WLDF

Submitter

First Name: Jeff
Last Name: Ennenga
Phone: 3539
Email: jeff.ennenga

Course Prefix and Number: SAR - 202

 # 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: Technical Rope Rescue: Technician Level

Course Description:

This course is designed to take students from basic over-the-bank rescues to progressively more vertical scenarios. Students learn and practice such skills as preplanning, size-up and scene management, ascending and descending, belaying, mechanical advantage systems, lowering and raising systems, patient packaging and litter attending, tethers, and highlines. Completion of the TRR:TL class satisfies the requirements in NFPA 1670 and 1006 for Technical Rope Technician level training and is recognized by Oregon DPSST. In addition, Technician level training is mandatory for inclusion on many Federal Emergency Management Agency Teams at different levels.

Type of Course: Career Technical Preparatory

Reason for the new course:

Developing a new Search and Rescue program to include technical rope and swiftwater rescue.

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: SAR-102 and SAR-201

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: 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?

Yes

Student Learning Outcomes:

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

1.create a rescue preplan;
2.evaluate a rescue scenario and preform a scene size-up;
3.summarize NFPA and applicable standards for rescue and recovery standards;
4.use knot craft and equipment to create main and belay systems with variable friction devices and mechanical advantage systems for low, steep and high angle environments ;
5.apply dressed knot construction to properly tie 8 knots, hitches and bends for rescue;
6.use belay system to arrest a rescue load;
7.perform entire rescue system safety check;
8.safely pick off a suspended patient;
9.demonstrate proper patient packaging;
10.demonstrate personal ascent and descent on low, steep and high angle terrain.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1.Standards and rescue philosophy
2.Personal, team and scene safety
3.Simple, compound and complex mechanical advantage
4.Knot craft as equipment in systems
5.Belay and main systems
6.Patient packaging with above and below litter tending
7.Personal ascent and decent in all terrains
8.Passing a knot on the way up and down a rope
9.Weighted system change over from raise to lower to raise

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**

Clackamas Community College

Online Course/Outline Submission System

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Date approved: June 1, 2018 Certified General Education Area(s): None

Section #1 General Course Information

Department: WLDF

Submitter

First Name: Jeff
Last Name: Ennenga
Phone: 3539
Email: jeff.ennenga

Course Prefix and Number: SAR - 203

 # 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: Technical Rope Rescue: Advanced/Specialist

Course Description:

This course is for rope rescue team members who already have completed a comprehensive basic training and want to continue to specialize. This training continues where the introductory course finishes. This course examines advanced technical solutions. It elaborates on the use of multi-pods, monopod and A-frames, various configurations of steep, diagonal and horizontal spans, the use of multiple track lines in highline operations, industrial lead climbing, loads and forces, incident management and scenario training. This training is consistent with NFPA 1670 and 1006 standards for technician level.

Type of Course: Career Technical Preparatory

Reason for the new course:

Developing a new Search and Rescue program to include technical rope and swiftwater rescue.

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: SAR-202

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: 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?

Yes

Student Learning Outcomes:

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

1.create a rescue preplan;
2.evaluate complex rescue scenario and preform a scene size up;
3.establish secure artificial high directional;
4.diagram complex system force calculations;
5.lead climb with personal protection and/or Shepard's hook;
6.use advanced knot craft and equipment to create main and belay systems with variable friction devices and mechanical advantage systems for slopping highlines, two rope offsets and skate blocks;
7.select between single and multiple track lines with English or Norwegian reeves for scenario appropriateness.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1.Standards and rescue philosophy
2.Personal, team and scene safety
3.Theoretical vs. actual mechanical advantage
4.Complex system force calculations
5.Complex rescue scenarios
6.Advanced anchorages and anchor systems
7.Artificial high directional:tri, quad, mono
8.Artificial anchors
9.Rescue lead climbing 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%

Clackamas Community College

New Courses

December 2, 2022

Course Number	Title	Implementation
PHB-110	Fundamentals of Phlebotomy	2023/WI
PHB-112	Phlebotomy Techniques	2023/WI
PHB-115	Professionalism for Phlebotomists	2023/WI
PHB-125	Professionalism in Healthcare	2023/WI
PHB-130	Phlebotomy Practicum	2023/WI

Clackamas Community College

Online Course/Outline Submission System

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Section #1 General Course Information

Department: HTHS

Submitter

First Name: Virginia
Last Name: Chambers
Phone: 0699
Email: virginia.chambers

Course Prefix and Number: PHB - 110

 # Credits: 5

Contact hours

Lecture (# of hours): 55
Lec/lab (# of hours):
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: Fundamentals of Phlebotomy

Course Description:

Introduces students to the practice of phlebotomy and the role of the phlebotomist as part of the healthcare team. Students will become familiar with phlebotomy equipment and learn about basic blood collection procedures. Students will identify medical terminology, anatomy, and physiology related to phlebotomy. Students will learn about specimen collection procedures, safety protocols, quality control, and regulatory compliance related to the role of a phlebotomist. This is an online course with embedded skills demonstrations to help prepare students for the in-person skills lab.

Type of Course: Career Technical Preparatory

Reason for the new course:

NEW Phlebotomy Certificate - this is one of the five new courses within this certificate

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?

Yes

Co-reqs: PHB-112 and PHB-115

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

Yes

Recommendations: BI-120, or BI-101 & BI-102, or BI-231 & BI-232 & BI-233. MA-110, and WR-121 or WR-101

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: 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. identify the role and scope of the phlebotomist in the healthcare facility and as a member of healthcare and laboratory teams within the community;
2. display an understanding of anatomy and physiology of body systems and related medical terminology as they pertain to phlebotomy;
3. identify laboratory safety protocols and summarize regulatory standards;
4. demonstrate knowledge of specimen collection procedures and processing, vacutainer additives and order of draw, special precautions, and the importance of maintaining specimen integrity in the delivery of quality patient care;
5. reflect and review concepts of respect and teamwork within a multidisciplinary environment;
6. summarize the importance of patient rights and safeguarding confidentiality to uphold legal, ethical, and moral conduct.

This course does not include assessable General Education outcomes.

Major Topic Outline:

- Phlebotomy scope
- Related terminology
- Related abbreviations
- Related anatomy and physiology
- HIPAA
- Patient identification
- Ethics and professionalism
- Legal and regulatory standards
- Documentation
- OSHA
- Bloodborne pathogens
- Types of laboratory testing
- Vacutainer tube additives
- Order of draw
- Preanalytical errors
- Processing requirements
- Specimen handling
- Result reporting
- Quality Control
- Phlebotomy considerations and complications
- Lab department

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: Fall 2023

Clackamas Community College

Online Course/Outline Submission System

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Section #1 General Course Information

Department: HTHS

Submitter

First Name: Virginia
Last Name: Chambers
Phone: 0699
Email: virginia.chambers

Course Prefix and Number: PHB - 112

 # Credits: 2

Contact hours

Lecture (# of hours):
Lec/lab (# of hours):
Lab (# of hours): 60
Total course hours: 60

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: Phlebotomy Techniques

Course Description:

Perform venipuncture, capillary puncture, and specimen processing. This course is designed to provide students with active-learning experiences and hands-on training necessary to develop the skills of an entry-level phlebotomist. The student will learn the procedures performed by a phlebotomist and will become familiar with different types of equipment and techniques applied. Instruction on laboratory safety and standards will be emphasized.

Type of Course: Career Technical Preparatory

Reason for the new course:

NEW Phlebotomy Certificate - this is one of the five new courses within this certificate

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?

Yes

Co-reqs: PHB-110 and PHB-115

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

Yes

Recommendations: BI-120, or BI-101 & BI-102, or BI-231 & BI-232 & BI-233. MA-110, and WR-121 or WR-101

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: 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. perform blood collection procedures through venipuncture and dermal puncture;
2. prepare, collect, process, and handle various laboratory specimens including waived and point-of-care testing;
3. identify common phlebotomy considerations and errors and implement ways to address them in order to ensure patient safety, and maintain specimen integrity;
4. adhere to principles of infection control and safety precautions during specimen collection and processing;
5. demonstrate professionalism and patient-centered behavior.

This course does not include assessable General Education outcomes.

Major Topic Outline:

- Venipuncture equipment
- Dermal puncture equipment
- Venipuncture procedure
- Dermal puncture procedure
- Hand hygiene
- Sharps safety
- Infection control
- Personal Protective Equipment
- Tourniquet use
- Patient identification
- Appropriate Site selection
- Order of draw
- Collection requirements
- Professionalism
- Laboratory requisitions
- Patient preparation
- Waived and point of care testing
- Newborn screening
- Blood culture collection
- Patient-centered interactions
- Specimen labeling
- Quality control
- Documentation
- Specimen processing
- Specimen handling
- Preanalytical errors
- Biohazard handling
- Laboratory safety

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: Fall 2023

Clackamas Community College

Online Course/Outline Submission System

Print Edit Delete Back

Section #1 General Course Information

Department: HTHS

Submitter

First Name: Virginia
Last Name: Chambers
Phone: 0699
Email: virginia.chambers

Course Prefix and Number: PHB - 115

 # 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: Professionalism for Phlebotomists

Course Description:

Introduces professionalism in the healthcare setting and prepares students for clinical placement.

Type of Course: Career Technical Preparatory

Reason for the new course:

NEW Phlebotomy Certificate - this is one of the five new courses within this certificate

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?

Yes

Co-reqs: PHB-110 and PHB-112

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

Yes

Recommendations:

Requirements: Compliance with the Oregon Health Authority rules for students. Vaccination records for Tdap, MMR, Varicella, Hep B, COVID-19. Completed criminal background check, drug screen, and BLS CPR card through the American Heart Association

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?

✓ 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 professionalism and how it relates to the delivery of healthcare;
2. create a professional portfolio for clinical practicum placement;
3. demonstrate compliance with Oregon Health Authorities rules for students in clinical training.

This course does not include assessable General Education outcomes.

Major Topic Outline:

- Professionalism and ethics
- Interpersonal skills and communication
- Time management and organization
- Navigating difficult situations
- Teamwork and empathy
- Problem-solving
- Practicum placement

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: Fall 2023

Clackamas Community College

Online Course/Outline Submission System

Print Edit Delete Back
Reject Publish

Section #1 General Course Information

Department: HTHS

Submitter

First Name: Virginia
Last Name: Chambers
Phone: 0699
Email: virginia.chambers

Course Prefix and Number: PHB - 125

 # 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: Professionalism in Healthcare

Course Description:

This course is designed to support the transition from practicum to employment by exploring nationally recognized credentialing options, summarizing essential skills related to phlebotomy, and finalizing professional portfolio for employment.

Type of Course: Career Technical Preparatory

Reason for the new course:

NEW Phlebotomy Certificate - this is one of the five new courses within this certificate

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: PHB-110, PHB-112, and PHB-115

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?

Yes

Co-reqs: PHB-130

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. reflect on clinical practicum experiences and discuss opportunities for growth;
2. summarize credentialing options;
3. finalize professional portfolio;
4. identify employment opportunities.

This course does not include assessable General Education outcomes.

Major Topic Outline:

- Maintain a weekly reflection journal
- Reflect and discuss the use of performance evaluations as it relates to employment
- Submit a final professional portfolio for review
- Professionalism
- Discuss practicum experiences
- Optional certification preparation

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 2024

Clackamas Community College

Online Course/Outline Submission System

Print Edit Delete Back
Reject Publish

Section #1 General Course Information

Department: HTHS

Submitter

First Name: Virginia
Last Name: Chambers
Phone: 0699
Email: virginia.chambers

Course Prefix and Number: PHB - 130

 # Credits: 5

Contact hours

Lecture (# of hours):
Lec/lab (# of hours):
Lab (# of hours): 160
Total course hours: 160

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: Phlebotomy Practicum

Course Description:

Provide hands-on experience in a supervised and accredited laboratory or clinical environment, providing the opportunity for students to apply practical skills and knowledge learned in previous courses and gain professional experience in a healthcare environment.

Type of Course: Career Technical Preparatory

Reason for the new course:

NEW Phlebotomy Certificate - this is one of the five new courses within this certificate

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: PHB-110, PHB-112, and PHB-115

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?

Yes

Co-reqs: PHB-125

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

Yes

Recommendations:

Requirements: Compliance with the Oregon Health Authority rules for students. Vaccination records for Tdap, MMR, Varicella, Hep B, COVID-19. Completed criminal background check, drug screen, and BLS CPR card through the American Heart Association

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:

Pass/No Pass Only

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. perform duties of an entry-level phlebotomist in a supervised healthcare setting;
2. demonstrate concepts and applications of infection control;
3. demonstrate professional communication within the healthcare setting;
4. demonstrate knowledge of Health Insurance Portability and Accountability Act (HIPAA) within the healthcare setting;
5. reflect on clinical practicum evaluations and identify opportunities for growth.

This course does not include assessable General Education outcomes.

Major Topic Outline:

- Complete practicum site-specific HIPAA training and orientation
- Complete and submit documentation of 160 clock hours of clinical training and orientation
- Complete and submit documentation of 100 successful independent blood collections, including 10 successful capillary punctures
- Complete and submit self-evaluation
- Submit professional performance evaluation by clinical site
- Submit skills evaluation by clinical site

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:

New Programs

December 2, 2022

Program	Implementation
Phlebotomy CC	2023/SU

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.) 6-digit CIP	7th digit	8th digit	*APPROVED* Recognition Award	Current Credits
AAS Title:				☐ Associate of Applied Science (AAS) Degree	
Related Certificates:				☐ *OPTION* to AAS Degree	
Certificate Title: *Within* AAS Degree? ☐ Yes** √ No **Phlebotomy** NA.PREPHLEB, CC.PHLEBOTOMY	**51.1009**	**L**	*	√ **CC (12-30 credits)**	**14**

**Enter name of base degree in 'AAS Title' box

New program approved on 12.02.22

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 22-23				*PROPOSED CURRICULUM 23-24*			
Course	**Title**	**Hours**	**Credits**	**Course**	**Title**	**Hours**	**Credits**
Marketing Certificate							
Fall Term							
PHB-110	Fundamentals of Phlebotomy	55	5				
PHB-112	Phlebotomy Techniques	60	2				
PHB-115	Professionalism for Phlebotomists	11	1				
Winter Term							
PHB-125	Professionalism in Healthcare	11	1				
PHB-130	Phlebotomy Practicum	160	5				
Catalog Notes							
All courses must be passed with a C or better.							
TOTAL *CURRENT* CREDITS:			14	**TOTAL *PROPOSED* CREDITS:**			

College Contact		**Telephone No.**	
E-Mail Address		**Fax No.**	
Chief Academic Officer *or* PTE Dean Signature		**Date**	

APPLICATION for a NEW PROGRAM
CAREER TECHNICAL EDUCATION (CTE)

Department forms change periodically. It is the college's responsibility to use the most current forms available. Current forms, handouts and other useful resources are located at
http://www.ode.state.or.us/opportunities/grants/perkins/postsecondary/appsandwkshts.aspx

Note: It is essential that the companion document, the Planning Guide & Application Worksheet, is used in representing your new program. The Application Worksheet must be kept on file at the college and made available upon request.

Section 1. College Contact Information

College	**Clackamas Community College**

College Point Of Contact	Dru Urbassik
Title	Director, Curriculum & Scheduling
Department, Division	Institutional Effectiveness & Planning
Mailing Address	19600 Molalla Avenue
City, State Zip Code	Oregon City, OR 97045
Phone	503-594-6217
Fax	503-650-6659
E-Mail	dru.urbassik@clackamas.edu

Program Contact Person	Virginia Chambers
Title	Director of Health Sciences
Department, Division	Health Sciences – TAPS Division
Mailing Address	7738 SE Harmony Rd,
City, State Zip Code	Milwaukie, OR 97222
Phone	503-594-0699
Fax	N/A
E-Mail	Virginia.chambers@clackamas.edu

Section 2. Program Award Information

Name of Proposed Program	**Phlebotomy Program**

✓	Type of Program (Check all that apply if the programs are related)	Total Credits
	Associate of Applied Science (AAS) Degree	
	Associate of Applied Science Degree, Option (An option is a specialized area within a base AAS. Must maintain 70% of common credits with base AAS)	
X	**Certificate of Completion**	**14**

	Business and Industry-based Program (privately-contracted, closed enrollment)

✓	Career Area (please check the appropriate area)
	Agriculture, Food & Natural Resources Systems
	Arts, Information & Communications
	Business & Management

x	**Health Services**
	Human Resources
	Industrial & Engineering Systems

EII Education Specialist	
Name	
Phone	
E-Mail	

Proposed Program Implementation Date	Fall 2023 (September 24th 2023)

CIP Code	51.1009	**CIP Title**	Phlebotomy Technician/Phlebotomist
CIP Narrative Description			

A program that prepares individuals, under the supervision of physicians and other health care professionals, to draw blood samples from patients using a variety of intrusive procedures. Includes instruction in basic vascular anatomy and physiology, blood physiology, skin puncture techniques, venipuncture, venous specimen collection and handling, safety and sanitation procedures, and applicable standards and regulations.

Program Summary

Description: This limited-entry program provides students with the necessary knowledge and skills to obtain entry-level employment as a phlebotomist within a healthcare setting. The program will prepare students to step into their roles as responsible, productive members of their communities. Upon the completion of the program, students will be eligible for phlebotomy certification. The program is designed to include online learning paired with in-person skills labs, followed by a clinical practicum.

Program objectives:

- safely perform high-quality blood collection through venipuncture and capillary puncture procedures;
- demonstrate correct collection, processing, and handling of laboratory specimens according to current laboratory protocols;
- understand and comply with legal and ethical standards, as well as laboratory safety, quality, and regulatory standards;
- demonstrate knowledge of medical terminology, anatomy, and physiology pertaining to phlebotomy;
- describe the concepts of communication, personal and patient interaction, stress and time management, and professional behavior in healthcare settings;
- prepare for the credentialing process and employment in the community.

Program Requirements:

- High School diploma or equivalent
- Students must demonstrate compliance with the Oregon Health Authority rules for students in clinical training. The following will be required: submit vaccination records for Tdap, MMR, Varicella, Hep B, COVID-19; complete a criminal background check, drug screen, and obtain a BLS CPR card through the American Heart Association prior to entering clinical practicum.

✓	Financial Assistance Options Sought for and/or Approved for the Program (Check all that apply)	
✓	**Federal Financial Aid Options**	
✓	**Workforce Investment Act – Individual Training Account**	
✓	**Veterans Benefits**	
✓	**State of Oregon Financial Aid**	**Describe: Oregon Opportunity Grant**
	College Financial Aid	**Describe:**
✓	**Private Business, Foundation Aid**	**Describe: Scholarships**
✓	**Other:**	**Describe: Voc Rehab funds, Social Services funds, Tribal Educational funds**

Section 3. Program Approval Standards

Standard A ***Need:* The community college provides clear evidence of the need for the program.**
Program Highlights
Employment in this occupation in 2020 was somewhat larger than most occupations across the state. The total number of job openings is projected to be somewhat larger than most occupations in Oregon through 2030. This occupation is expected to grow at a somewhat faster rate than the statewide average growth rate for all occupations through 2030. The Tri-county (local service area) is anticipated to see the majority of employment growth and industry demand. Percentage of growth from 2020 to 2030 for the Tri-county area is 26.5% while the state percentage of growth is 19%. The Tri-County service area represents 122 of the 248 annual replacement opening for Oregon with the hourly wage in Clackamas county $3 dollars more than the state.

Standard B ***Collaboration: The community college utilizes systemic methods for meaningful and ongoing involvement of the appropriate constituencies.**
Program Highlights
The curriculum for the certificate was developed in collaboration with our industry partners. Feedback was provided via survey and zoom meetings. Working with Kaiser Permanente, Providence Health Systems, Legacy Health Systems, PeaceHealth, and our smaller outpatient laboratory services (e.g., Fanno Creek, etc.) the curriculum was vetted. The Phlebotomy Employers Workgroup will continue to meet twice a year after certificate is up and running. Two PT Faculty (currently working with CCC) have been identified as Lead Faculty on this project: Tara Boyd, Medical Assisting Phlebotomy instructor and Emily Zuniga, CLA instructor and current Kaiser Laboratory Technician. Both are considered subject matter experts and will provide ongoing support as liaisons between industry partners and the college. Future collaboration between Adult Basic Education will take place once curriculum is approved. Faculty (SME listed above) will consult with ABE faculty and coaches to ensure curriculum is aligned with best practices for adult learners and utilizes methods of universal design. Students who successfully complete the Phlebotomy certificate program will be eligible to obtain national certification as a phlebotomist.

Standard C

***Alignment*: The program is aligned with appropriate education, workforce development, and economic development activities.**

Program Highlights

Phlebotomy Certificate program is an entry-level program with opportunity for students to seek professional development and growth. The purpose of this certificate is to get individuals working quickly in healthcare and provide credentialing support. Individuals who obtain the CCC Phlebotomy Certificate will be eligible for additional points on their Medical Assisting admissions application.

Target recruitment will take place by collaborating with Workforce Development and Adult Basic Education for under-resourced and/or marginalized adults. Priority populations include: communities of color, low-income communities, veterans.

Standard D

***Design*: The program leads to student achievement of academic and technical knowledge, skills, and related proficiencies.**

Program Highlights

The certificate is focused on the knowledge, skills, and attributes of an entry-level phlebotomist with an emphasis on softskills (essential skills) for employability. The didactic online lecture course will focus on the cognitive "knowledge" (anatomy physiology, medical terminology, equipment, safety, etc.) while the clinical lab course provides students face to face /hands on practice in a safe learning environment. The two seminar (1 credit) courses will focus on professionalism, clinical placement, and providing the "essential skills" coaching for support. Students who successfully complete the Phlebotomy certificate program will be eligible to obtain national certification as a phlebotomist.

Curriculum structure and design:

Well-designed asynchronous online lectures with embedded quality skills demonstration videos provide the following opportunities:

- Allows students to develop and/or strengthen e-learning skills and navigation.
- Provides students with opportunities to identify credible resources
- Provides students the flexibility to work while in school

Well-designed hands-on skills lab allows students to:

- Apply information obtained from online learning to the skills lab.
- Utilize simulation equipment for low stakes application as students increase technical skills and confidence.
- Practice dexterity and technical skills required to perform basic venipuncture procedures with equipment and supplies.
- Practice performing venipuncture and capillary puncture on peers (other students) under the guidance of trained faculty.

Well-designed externship allows students to:

- Safely experience a professional clinic and/or laboratory environment.
- Practice and apply skills within the clinic and/or laboratory setting.
- Gain valuable applied experience for employment.

Standard E

***Capacity*: The community college identifies and has the resources to develop, implement, and sustain the program.**

Program Highlights

- Two subject matter experts who currently teach for Clackamas Community College or directly work in the industry with a history of teaching at the college.
- Two part-time faculty who are qualified and interested in teaching lecture/skills lab and provide practicum placement
- Classroom/lab space at Harmony East.
- Industry partners who are requesting to host clinical externship opportunities
- Industry partners who are interested in providing "employment support" with mock interviews, resume writing, etc.
- Interest, support and possible formal partnership with Adult Basic Education
- Workforce Ready Grant – applied in August and will be notified in mid-October if funding was approved. Funding would pay for an instructional designer to develop meaningful, relevant, and applicable asynchronous online learning for three of the five courses.

Section 4. Proposed Curriculum

***PROPOSED* CURRICULUM** [List in a Defined Sequence of Courses Format, e.g., Quarter-to-quarter mapping]			
Course Number	**Course Title**	**Clock Hours**	**Credits**
Fall Term			
PHB-110	Fundamentals of Phlebotomy	55	5
PHB-112	Phlebotomy Techniques	60	2
PHB-115	Professionalism for Phlebotomists	11	1
Winter Term			
PHB-125	Professionalism in Healthcare	11	1
PHB-130	Phlebotomy Practicum	160	5
TOTAL *PROPOSED* CREDITS:			14

Section 5. Assurances and Signature

College Authority Signature
(Applications must be signed by the chief academic officer or the president)

I have reviewed this application and supporting documents and attest to the accuracy, clarity, and completeness. The college will comply with the following assurances:

1. **Access**. The college and program will affirmatively provide access, accommodations, flexibility, and additional/supplemental services for special populations and protected classes of students.
2. **Continuous improvement**. The college has assessment, evaluation, feedback, and continuous improvement processes or systems in place. For the proposed program, there will be opportunities for input from and concerning the instructor(s), students, employers, and other partners/stakeholders. Program need and labor market information will be periodically re-evaluated and changes will be requested as needed.
3. **Adverse impact & detrimental duplication.** The college will follow all current laws, rules, and procedures and has made good faith efforts to avoid or resolve adverse *inter*segmental and *intra*segmental impact and detrimental duplication problems with other relevant programs or institutions.
4. **Program records maintenance & congruence.** The college acknowledges that the records concerning the program title, curriculum, CIP code, credit hours, and other identifying and descriptive information maintained by the Department are the official records and it is the college's responsibility to keep the college records aligned with those of the Department. The college will not make changes to the program without informing and/or receiving approval from the Department.

Our staff has worked closely with CCWD-EII staff in the development of the proposed program and completion of this application. The proposed program:

1. Has been designed to meet the State Board of Education approval standards for Need,

2. Collaboration, Alignment, Design and Capacity, as well as the elements identified that that are essential to a quality program;
3. Our college board has approved the proposed program described in this application;
4. All local campus procedures have been completed; and
5. This program is ready to be reviewed by CCWD-EII staff on behalf of the State Board of Education.

It is understood that documentation or evidence may be requested by CCWD-EII staff if additional information is needed.

Signature	
Title	Director, Curriculum & Scheduling
Name (Printed or typed)	Dru Urbassik
Date	

Curriculum Committee

New CTE Program

This form provides additional information required by the NWCCU for accreditation
Signed copies must be submitted two weeks prior to Curriculum Committee meetings

Program Presenter	Virginia Chambers
Program Department/Division	Health Sciences/TAPS Division
Program Type	CC (Certificate, 12-30 Credits)
If CPCC or Related Cert, list Parent Program	N/A
Complete Program Title	Phlebotomy Certificate
Credit Total	14

Catalog description of new program

Must match description from CCWD CTE Program of Study Application

Description: This limited-entry program provides students with the necessary knowledge and skills to obtain entry-level employment as a phlebotomist within a healthcare setting. The program will prepare students to step into their roles as responsible, productive members of their communities. Upon the completion of the program, students will be eligible for phlebotomy certification. The program is designed to include online learning paired with in-person skills labs, followed by a clinical practicum.

Similar to an existing program?

Clinical Lab Assistant/Phlebotomy Program (currently suspended winter 2022)

Program-Level Student Learning Outcomes

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

Program objectives:

- safely perform high-quality blood collection through venipuncture and capillary puncture procedures;
- demonstrate correct collection, processing, and handling of laboratory specimens according to current laboratory protocols;
- understand and comply with legal and ethical standards, as well as laboratory safety, quality, and regulatory standards;
- demonstrate knowledge of medical terminology, anatomy, and physiology pertaining to phlebotomy;
- describe the concepts of communication, personal and patient interaction, stress and time management, and professional behavior in healthcare settings;
- prepare for the credentialing process and employment in the community.

Program-Level Assessment Plan

- Measure and track completion rates by certificate award: Benchmark minimum of 20 students complete Phlebotomy certificate annually meets success criteria with opportunity to grow

- Continuous improvement by measuring and tacking student experience with Qualtrics survey tool: Benchmark of ~30% survey return with 80% good to excellent overall student experience (survey to be developed)

- Measure and track employment data post practicum: Benchmark of 60% employed within 30 days of finishing certificate

- Continuous improvement by measuring employer satisfaction and feedback data: Benchmark of ~30% survey return with 80% employer satisfaction rate (survey to be developed)

Related Instruction Courses in the Program

N/A

Describe your Marketing plan.

- Develop target marketing materials to meet the audience (e.g., prospective students, community partners, ABE, workforce development, etc.)
- Work with Clackamas Community College WebTeam to create webpage for program under Health Sciences
- Develop one-page printable fliers and/or information sheets for the website
- Send information to previous Clinical Lab Assistant Advisory Board and new Phlebotomy Employers Workgroup announcing the new Phlebotomy Certificate
- Collaborate with target marking efforts by connecting with Adult Basic Education and Clackamas Workforce
- Connect with EFA Academic Advisors to provide up to date information on new program and application process

Will there be revenues associated with the new program?
(i.e. bonds, grants, reallocation)

○ Yes ◉ No

New Courses needed?

◉ Yes ○ No

Course Title	Credit Hours	Term
PHB 110- Fundamentals of Phlebotomy	5	Fall 2023
PHB 112- Phlebotomy Techniques	2	Fall 2023
PHB 115 – Professionalism for Phlebotomists	1	Fall 2023
PHB 125 – Professionalism in Healthcare	1	Winter 2024
PHB 130 – Phlebotomy Practicum	5	Winter 2024

New Sections needed?

○ Yes ◉ No

Additional faculty needed?

◉ Yes ○ No

	Number	Term
Full-time	0	
Part-time	2	Fall & Winter

New physical facilities and equipment needed?

○ Yes ◉ No

Please explain how the current physical facilities and equipment will be allocated to meet the needs of the new program
The Microbiology lab – which was the Clinical Laboratory Assistant Program classroom and laboratory space at Harmony East in Room 360– will serve as the new Phlebotomy certificate lab space. The other certificate courses are online.
We may look into removing tables and adding phlebotomy stations (draw chairs), if permitted.

New Student Services needed?
Link to student services listed in the current catalog

○ Yes ◉ No

Please explain how the current Student Services will accommodate the needs of the new program
Students have access to accommodations services through DRC, library services, and online course support (Moodle tech questions).

Other expenses?

◉ Yes ○ No

Expense Description	Cost	Term
Lab Supplies	~$1,000	Fall term

Division Dean Signature/Date

Department Chair Signature/Date

Faculty/Program Lead Signature/Date
(optional)

New Programs

December 2, 2022

Program	Implementation
Part Time Welding CC	2023/SU

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
	☐ 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: *6-digit CIP*	*7th digit*	*8th digit*	*APPROVED* Recognition Award	Current Credits
Parent AAS Title:				☐ Associate of Applied Science (AAS) Degree	
Option Title**				☐ *OPTION* to AAS Degree	
Certificate Title: *Within* AAS Degree? √ Yes** ☐ No **Part Time Welding**	58			☐ CC (12-30 Credits)	14

****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:
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 22-23				*PROPOSED CURRICULUM 23-24*			
Course	**Title**	**Hours**	**Credits**	**Course**	**Title**	**Hours**	**Credits**
First Term							
COMM-100	Basic Speech Communication	33	3				
WLD-100	Welder's Print Reading I	33	3				
WLD-150	Welding Processes	88	4				
Second Term							
WLD-111A Or WLD-113A Or WLD-115A	Shielded Metal Arc Welding (Stick) Or Gas Metal Arc Welding/Flux Core Arc Welding (Wirefeed) Or Gas Tungsten Arc Welding (GTAW)	88	4				
TOTAL *CURRENT* CREDITS:			14	**TOTAL *PROPOSED* CREDITS:**			

College Contact		**Telephone No.**	
E-Mail Address		**Fax No.**	
Chief Academic Officer *or* PTE Dean Signature		**Date**	

APPLICATION for a NEW PROGRAM
CAREER TECHNICAL EDUCATION (CTE)

Department forms change periodically. It is the college's responsibility to use the most current forms available. Current forms, handouts and other useful resources are located at
http://www.ode.state.or.us/opportunities/grants/perkins/postsecondary/appsandwkshts.aspx

Note: It is essential that the companion document, the Planning Guide & Application Worksheet, is used in representing your new program. The Application Worksheet must be kept on file at the college and made available upon request.

Section 1. College Contact Information

College	**Clackamas Community College**

College Point Of Contact	Dru Urbassik
Title	Director, Curriculum & Scheduling
Department, Division	Institutional Effectiveness & Planning
Mailing Address	19600 Molalla Avenue
City, State Zip Code	Oregon City, OR 97045
Phone	503-594-6217
Fax	503-650-6659
E-Mail	dru.urbassik@clackamas.edu

Program Contact Person	John phelps
instructor	John phelps
Department, Division	Welding TAPS
Mailing Address	19600 S Molalla Ave
City, State Zip Code	Oregon City OR 97045
Phone	503-594-6378
Fax	
E-Mail	johnp@clackamas.edu

Section 2. Program Award Information

Name of Proposed Program	**Part time welding certificate**

✓	**Type of Program** (Check all that apply if the programs are related)	**Total Credits**
	Associate of Applied Science (AAS) Degree	
	Associate of Applied Science Degree, Option (An option is a specialized area within a base AAS. Must maintain 70% of common credits with base AAS)	
x	**Certificate of Completion**	**14**

	Business and Industry-based Program (privately-contracted, closed enrollment)

✓	**Career Area (please check the appropriate area)**
	Agriculture, Food & Natural Resources Systems
	Arts, Information & Communications
	Business & Management

	Health Services
	Human Resources
x	**Industrial & Engineering Systems**

EII Education Specialist	
Name	
Phone	
E-Mail	

Proposed Program Implementation Date	Summer 2023

CIP Code		**CIP Title**	
CIP Narrative Description			

Program Summary

This 6-month program is designed with the part-time student in mind. This certificate introduces welding basics and prepares students for an entry-level position in welding and fabrication. Students learn about the main areas of welding, Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding/Flux (GMAW), Core Arc Welding (FCAW), and Gas Tungsten Arc Welding (GTAW). Course selection allows students to focus on a single welding process. Students also learn to interpret and read a blue print with welding symbols and how to effectively present themselves in a professional manner.

✓	**Financial Assistance Options Sought for and/or Approved for the Program** (Check all that apply)	
	Federal Financial Aid Options	
✓	**Workforce Investment Act – Individual Training Account**	
✓	**Veterans Benefits**	
✓	**State of Oregon Financial Aid**	**Describe: Oregon Opportunity Grant**
✓	**College Financial Aid**	**Describe: Scholarships, tuition waivers, internships**
✓	**Private Business, Foundation Aid**	**Describe: Scholarships**
✓	**Other:**	**Describe: Voc Rehab funds, Social Services funds, Tribal Educational funds**

Section 3. Program Approval Standards

Standard A

***Need:* The community college provides clear evidence of the need for the program.**

Program Highlights

This credential would be a two term or 6-month option for a student that just wants to focus on becoming skilled in welding.

Standard B

***Collaboration*: The community college utilizes systemic methods for meaningful and ongoing involvement of the appropriate constituencies.**

Program Highlights

With the high demand for entry level welders in the Portland Metro area we have revised our pathways certificate requirements so students can become skilled enough within 6 months and join the work force and help meet this demand for entry level welders

The demand for skilled welders fluctuates and our community – advisory board members are in need of skilled entry level welders before they complete the requirements for an AAS.

Standard C

***Alignment*: The program is aligned with appropriate education, workforce development, and economic development activities.**

Program Highlights

This addresses the need students have for short term training. Students wanting to take the shortest amount of training (6 months or two terms) in welding and rejoin or start a new career in welding and fabrication.

Standard D

***Design*: The program leads to student achievement of academic and technical knowledge, skills, and related proficiencies.**

Program Highlights

The part time welding certificate gives students the ability to earn a credential within an abridged amount of time and learn the basic skills needed to become an entry level welder.

Standard E

***Capacity*: The community college identifies and has the resources to develop, implement, and sustain the program.**

Program Highlights

The community college has the resources to sustain the program. No new resources are needed.

Section 4. Proposed Curriculum

***PROPOSED* CURRICULUM** [List in a Defined Sequence of Courses Format, e.g., Quarter-to-quarter mapping]			
Course Number	**Course Title**	**Clock Hours**	**Credits**
Term 1			
COMM-100	Basic Speech Communication	33	3
WLD-100	Welder's Print Reading I	33	3
WLD-150	Welding Processes	88	4

Term 2			
WLD-111A Or WLD-113A Or WLD-115A	Shielded Metal Arc Welding (Stick) Or Gas Metal Arc Welding/Flux Core Arc Welding (Wirefeed) Or Gas Tungsten Arc Welding (GTAW)	88	4
TOTAL *PROPOSED* CREDITS:			14

Section 5. Assurances and Signature

College Authority Signature
(Applications must be signed by the chief academic officer or the president)

I have reviewed this application and supporting documents and attest to the accuracy, clarity, and completeness. The college will comply with the following assurances:

1. **Access**. The college and program will affirmatively provide access, accommodations, flexibility, and additional/supplemental services for special populations and protected classes of students.

2. **Continuous improvement**. The college has assessment, evaluation, feedback, and continuous improvement processes or systems in place. For the proposed program, there will be opportunities for input from and concerning the instructor(s), students, employers, and other partners/stakeholders. Program need and labor market information will be periodically re-evaluated and changes will be requested as needed.

3. **Adverse impact & detrimental duplication.** The college will follow all current laws, rules, and procedures and has made good faith efforts to avoid or resolve adverse *inter*segmental and *intra*segmental impact and detrimental duplication problems with other relevant programs or institutions.

4. **Program records maintenance & congruence.** The college acknowledges that the records concerning the program title, curriculum, CIP code, credit hours, and other identifying and descriptive information maintained by the Department are the official records and it is the college's responsibility to keep the college records aligned with those of the Department. The college will not make changes to the program without informing and/or receiving approval from the Department.

Our staff has worked closely with CCWD-EII staff in the development of the proposed program and completion of this application. The proposed program:

1. Has been designed to meet the State Board of Education approval standards for Need,
2. Collaboration, Alignment, Design and Capacity, as well as the elements identified that that are essential to a quality program;
3. Our college board has approved the proposed program described in this application;
4. All local campus procedures have been completed; and
5. This program is ready to be reviewed by CCWD-EII staff on behalf of the State Board of Education.

It is understood that documentation or evidence may be requested by CCWD-EII staff if additional information is needed.

Signature	
Title	Director, Curriculum & Scheduling
Name (Printed or typed)	Dru Urbassik
Date	

Curriculum Committee

New CTE Program

This form provides additional information required by the NWCCU for accreditation
Signed copies must be submitted two weeks prior to Curriculum Committee meetings

Program Presenter	John Phelps
Program Department/Division	Welding / TAPS
Program Type	CTE
If CPCC or Related Cert, list Parent Program	Click to enter text.
Complete Program Title	Part time Welding Certificate
Credit Total	14

Catalog description of new program

Must match description from CCWD CTE Program of Study Application

This 6-month program is designed with the part-time student in mind. This certificate introduces welding basics and prepares students for an entry-level position in welding and fabrication. Students learn about the main areas of welding, Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding / Flux (GMAW), Core Arc Welding (FCAW) and Gas Tungsten Arc Welding (GTAW). Course selection allows students to focus on a single welding process. Students also learn to interpret and read a blue print with welding symbols and how to effectively present themselves in a professional manner.

Similar to an existing program?

No, this is intended for a part time student with 6 months of training focused in welding

Program-Level Student Learning Outcomes

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

- work safely in an industrial environment around machinery, power tools, and chemicals;
- set up, operate, and make adjustments to welding equipment as necessary to demonstrate quality workmanship that meets current American Welding Society (AWS) and industry standards;
- apply basic knowledge of blueprint reading to fabricate projects as assigned.
- identify appropriate verbal and nonverbal messages for various communication situations, including messages used in electronic correspondence;

Program-Level Assessment Plan

WLD 100, 111, 113, & 115 are part of our ongoing assessment process yearly. Work samples are pulled from each of these courses and reviewed regularly.

Related Instruction Courses in the Program
COMM 100

Describe your Marketing plan.
Upon approval the welding department will reach out to Workforce, vocational rehab, and the advising department at CCC to clarify and inform all of these changes and the benefits to students wanting to earn this revised credential.

Will there be revenues associated with the new program?
(i.e. bonds, grants, reallocation)

○ Yes ◉ No

New Courses needed?

○ Yes ◉ No

New Sections needed?

◉ Yes ○ No

Course Title	# New Sections	Term
COMM 100	1	TBD

Additional faculty needed?

○ Yes ◉ No

Please explain how current faculty will be sufficient to staff new program
All of these courses are required as part of an AAS in welding. Current faculty teach all of these required courses.

New physical facilities and equipment needed?

○ Yes ◉ No

Please explain how the current physical facilities and equipment will be allocated to meet the needs of the new program
Our current facilities are sufficient to accommodate students wanting to achieve this credential.

New Student Services needed?
Link to student services listed in the current catalog

○ Yes ◉ No

Please explain how the current Student Services will accommodate the needs of the new program
Our current assigned advisor for our program will be able to accommodate any needs for this new certificate

Other expenses?

○ Yes ◉ No

Division Dean Signature/Date

Department Chair Signature/Date

John Phelps 11 / 14 / 22

Faculty/Program Lead Signature/Date

(optional)

Program Suspensions

December 2, 2022

Program	Implementation
AS, Energy Systems Engineering, OSU	2023/SU
AS, Engineering, George Fox	2023/SU

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**	

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 – Energy Systems Engineering** AS.OSUENERGYSYS				**Associate of Applied Science Area of Emphasis**	**96-98**
Partnering Institution Name **Oregon State University**					

Last amendment approved on 11.05.21

TYPE OF PROGRAM AMENDMENT (Check **ALL** That Apply)			
☐ **New Agreement**	☐ **Curriculum Revision**	x **Revision in Program Credits**	
		Proposed **Total Credits:**	
x ***SUSPENSION*** **of Program**	*Reason for Suspension:* *Lack of interest from students. Trying to reduce the many options in engineering to a more manageable number.*		
Suspension Effective Date:	**2022-2023**		

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 22-23				*PROPOSED CURRICULUM 23-24*			
Course	**Title**	**Hours**	**Credits**	**Course**	**Title**	**Hours**	**Credits**
Program Requirements – First 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				
Winter Term							
CH-222	General Chemistry	77	5				
ENGR-112	Engineering Programming	33	3				
MTH-252	Calculus II	55	5				
Spring Term							
COMM-111	Public Speaking	44	4				
EC-201	Principles of Economics: MICRO	44	4				
MTH-254	Vector Calculus	55	5				
WR-227	Technical Report Writing	44	4				
Summer Term							
MTH-256	Differential Equations	44	4				
Program Requirements – Second Year							
Fall Term							
BA-211	Financial Accounting	44	4				
ENGR-211	Statics	44	4				
ENGR-221	Electrical Circuit Analysis I	33	4				
PH-211	General Physics with Calculus	77	5				
Winter Term							
ENGR-212	Dynamics	44	4				
ENGR-222	Electrical Circuit Analysis II	66	4				
PH-212	General Physics with Calculus	77	5				
Spring Term							
PH-213	General Physics with Calculus	77	5				
--	Engineering elective		3-4				
--	Literature and the Arts Elective		3-4				
--	Western Culture elective		4				

Engineering Elective	
ENGR-115, 213, 223;	
Western Culture Elective	
ART-204, 205, 206; **ENG**-107, 108, 109, 201, 202, 204, 205, 250, 251, 253, 254, 255; **GEO**-208; **HST**-101, 102, 103, 132, 201, 202, 203; **PHL**-102; **R**-204;	
Literature and the Arts Elective	
ART-101, 204, 205, 206; **ENG**-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 204, 205, 213, 226, 230, 241, 250, 251, 252, 253, 254, 255, 260, 270; **MUS**-105, 205, 206;	
Optional: While not required for the A.S. degree, students may complete additional coursework at CCC that will meet requirements for the Bachelor of Science degree at Oregon State	

University. The Bachelor of Science degree requires the completion of one course from each category below.	
Cultural Diversity Elective	
ANT-232; **ENG**-213, 252; **GEO-**110; **R-**101, 102, 103, 210;	
Difference, Power, and Discrimination Elective	
HST-201, 202, 203; **SOC**-225;	
Biological Science Elective	
BI-101, 102, 103, 165CL, 175, 176, 177, 204, 211, 212, 213, 234; **ESR**-171, 172, 173; **Z**-201, 202, 203;	
Physical Education Elective	
HPE-295;	

TOTAL *CURRENT* CREDITS:	96-98	**TOTAL *PROPOSED* CREDITS:**	
College Contact	Eric Lee	**Telephone No.**	X6163
E-Mail Address	elee@clackamas.edu	**Fax No.**	
Chief Academic Officer *or* CTE Dean Signature		**Date**	

Teach-Out Plan

Program Name: AS Energy Systems Engineering Oregon State

Program Type: Transfer

Required Program Credits: 96-98

Plan Implementation Date: 12/2/23

Date of Suspension of Student Admission: January 1, 2023

Last Term of Program Teach Out: Spring 2023

# of Students in Program: 0 **Source for Student Enrollment: Active Student Listing by Program Tool**

Teach Out Plan:

This plan must allow students to complete a goal without being disadvantaged. The plan cannot cost the student additional money. The teach out plan can include solutions to situations that would result in additional student costs, such as offering free tuition to students for the additional courses they may have to complete in order to be awarded a degree. The teach-out plan should also consider how the department will handle students who want to return to the degree program, but were not enrolled in the program at the time of termination. The following grid must be completed as part of the Teach Out Plan.

How will these promises to the students be met?	Describe
Maintain the necessary experience, resources, and support services	N/A—no students
Remain stable, carry out its mission, and meet all its obligations to students	N/A—no students
Offer the program without additional charge	N/A—no students

Communication plan with students:

This plan must explain how students will receive communication regarding the suspension of a program. Examples include meetings, emails, and letters. In some cases, multiple meetings at different times of the day may be required.

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**	

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.) *6-digit CIP*	*7th digit*	*8th digit*	*APPROVED* **Recognition Award**	**Current Credits**
AS Area of Emphasis Title: Engineering AS.GFENGINEER				**Associate of Applied Science Area of Emphasis**	**101-102**
Partnering Institution Name George Fox University					

Last amendment approved on 12.03.2021

TYPE OF PROGRAM AMENDMENT
(Check **ALL** That Apply)

☐ **New Agreement**	☐ **Curriculum Revision**	☐ **Revision in Program Credits**
		Proposed **Total Credits:**
x *SUSPENSION* **of Program**	*Reason for Suspension:* *Lack of interest from students. Trying to reduce the many options in engineering to a more manageable number.*	
Suspension Effective Date:	**2022-2023**	

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 22-23				*PROPOSED CURRICULUM 23-24*			
Course	**Title**	**Hours**	**Credits**	**Course**	**Title**	**Hours**	**Credits**
Program Requirements – First 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				
Winter Term							
CH-222	General Chemistry	77	5				
ENGR-112	Engineering Programming	33	3				
MTH-252	Calculus II	55	5				
WR-122	English Composition	44	4				
Spring Term							
EC-201 Or EC-202	Principles of Economics: MICRO or Principles of Economics: MACRO	44	4				
ENGR-115	Engineering Graphics	33	3				
MTH-254	Vector Calculus	55	5				
--	Intercultural Experience Elective		4				
Program Requirements – 2nd Year							
Fall Term							
COMM-111	Public Speaking	44	4				
PH-211	General Physics with Calculus	77	5				
--	Engineering Elective		4				
--	History elective		4				
Winter Term							
MTH-256	Differential Equations	44	4				
PH-212	General Physics with Calculus	77	5				
--	Engineering Elective		8				
Spring Term							
MTH-253	Calculus III	55	5				
MTH-261	Linear Algebra	44	4				
PH-213	General Physics with Calculus	77	5				
--	Engineering Elective		3-4				
Electives							
Electrical & Computer Engineering majors:							
ENGR-171	Digital Logic	66	4				
ENGR-221	Electrical Circuit Analysis I	33	4				
ENGR-222	Electrical Circuit Analysis II	66	4				
ENGR-271	Digital Systems	66	4				
Biomedical, Civil, and Mechanical Engineering majors:							
ENGR-211	Statics	44	4				
ENGR-212	Dynamics	44	4				
ENGR-231	Properties of Materials	66	4				
HPE-295	Health & Fitness for Life	60	3				
Intercultural Experience Elective:							

ANT-103; **COMM**-140; **ENG**-107, 108, 109; **FR**-101, 102, 103, 201, 202, 203; **GER**-101, 102, 103 **R**-210; **SPN**-101, 102, 103, 201, 202, 203;	
History Elective:	
HST-101, 102, 103, 201, 202, 203; **PS**-205;	

TOTAL *CURRENT* CREDITS:	101-102	**TOTAL *PROPOSED* CREDITS:**	
College Contact	Eric Lee	**Telephone No.**	x6163
E-Mail Address	elee@clackamas.edu	**Fax No.**	
Chief Academic Officer *or* CTE Dean Signature		**Date**	

Teach-Out Plan

Program Name: AS Engineering George Fox

Program Type: Transfer

Required Program Credits: 101-102

Plan Implementation Date: 12/2/23

Date of Suspension of Student Admission: January 1, 2023

Last Term of Program Teach Out: Spring 2024

# of Students in Program: 2

Source for Student Enrollment: Active Student Listing by Program Tool

Teach Out Plan:

This plan must allow students to complete a goal without being disadvantaged. The plan cannot cost the student additional money. The teach out plan can include solutions to situations that would result in additional student costs, such as offering free tuition to students for the additional courses they may have to complete in order to be awarded a degree. The teach-out plan should also consider how the department will handle students who want to return to the degree program, but were not enrolled in the program at the time of termination. The following grid must be completed as part of the Teach Out Plan.

How will these promises to the students be met?	Describe
Maintain the necessary experience, resources, and support services	While this will not be an official degree anymore, all of the classes will still be offered, and the STEM adviser and faculty adviser will continue providing support services.
Remain stable, carry out its mission, and meet all its obligations to students	
Offer the program without additional charge	N/A

Communication plan with students:

This plan must explain how students will receive communication regarding the suspension of a program. Examples include meetings, emails, and letters. In some cases, multiple meetings at different times of the day may be required.

Plan to contact both students enrolled in the program about the upcoming suspension by email. The suspension of the program should not significantly affect the students that are signed up as all of the classes will continue to be offered.

Program Amendments

December 2, 2022

Program	Implementation
AS, Biological Engineering, OSU	2023/SU
AS, Civil Engineering, OSU	2023/SU
AS, Civil Engineering, PSU	2023/SU
AS, Computer Engineering, PSU	2023/SU
AS, Construction Engineering Management, OSU	2023/SU
AS, Ecological Engineering, OSU	2023/SU
AS, Electrical Engineering, PSU	2023/SU
AS, Environmental Engineering, OSU	2023/SU
AS, Environmental Engineering, PSU	2023/SU
AS, Industrial/Manufacturing Engineering, OSU	2023/SU
AS, Mechanical Engineering, OSU	2023/SU
AS, Mechanical Engineering, PSU	2023/SU

Oregon Department of Community Colleges and Workforce Development
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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	

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 – Biological Engineering** AS.OSUBIOLENGR				**Associate of Applied Science Area of Emphasis**	**107**
Partnering Institution Name **Oregon State University**					

Last amendment approved on 11.05.21

TYPE OF PROGRAM AMENDMENT

(Check **ALL** That Apply)

☐ New Agreement	☐ Curriculum Revision	☐ Revision in Program Credits	
		Proposed **Total Credits:**	**105-106**
☐ ***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 22-23				***PROPOSED CURRICULUM 23-24***			
Course Number	**Course Title**	**Clock Hours**	**Credits**	**Course Number**	**Course Title**	**Clock Hours**	**Credits**
Program Requirements – 1st Year							
Fall Term							
COMM-111	Public Speaking	44	4				
ENGR-111	Introduction to Engineering	33	3				
MTH-251	Calculus I	55	5				
WR-121	English Composition	44	4				
Winter Term							
BI-204	Elementary Microbiology	66	4				
CH-221	General Chemistry	77	5				
ENGR-112	Engineering Programming	33	3				
MTH-252	Calculus II	55	5				
Spring Term							
CH-222	General Chemistry	77	5				
MTH-254	Vector Calculus	55	5				
WR-227	Technical Report Writing	44	4				
Summer Term							
CH-223	General Chemistry	77	5				
MTH-256	Differential Equations	44	4				
--	Social Process elective		4				
Program Requirements – 2nd Year							
Fall Term							
CH-241	Organic Chemistry I	77	5				
ENGR-211	Statics	44	4				
PH-211	General Physics with Calculus	77	5				
Winter Term							
CH-242	Organic Chemistry II	77	5				
MTH-253	Calculus III	55	5	REMOVE			
PH-212	General Physics with Calculus	77	5				
				--	Literature and the Arts elective		3-4
Spring Term							
CH-243	Organic Chemistry III	77	5				
ENGR-201	Electrical Fundamentals	66	4				
PH-213	General Physics with Calculus	77	5				
--	Western Culture elective		4				
Social Processes Elective							
ANT-103; **EC**-201, 202; **HST**-101, 102, 103; **PS**-201, 204, 205, 225; **PSY**-200, 205, 219, 231; **SOC**-204, 205, 206;							
Western Culture Elective							
ART-204, 205, 206; **ENG**-107, 108, 109, 201, 202, 204, 205, 250, 251, 253, 254, 255; **GEO**-208; **HST**-101, 102, 103, 132, 201, 202, 203; **PHL**-102; **R**-204;							
Optional: While not required for the A.S. degree, students may complete additional coursework at CCC that will meet requirements for the Bachelor of Science degree at Oregon							

State University. The Bachelor of Science degree requires the completion of one course from each category below.	
Cultural Diversity Elective	
ANT-231, 232; **ENG**-213, 252; **GEO-**110; **R-**101, 102, 103, 210;	
Literature and the Arts Elective	
ART-101, 204, 205, 206; **ENG**-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 204, 205, 213, 226, 230, 241, 250, 251, 252, 253, 254, 255, 260, 270; **MUS**-105, 205, 206;	MOVE TO BEFORE THE OPTIONAL TEXT
Difference, Power, and Discrimination Elective	
HST-201, 202, 203; **SOC**-225	
Physical Education Elective	
HPE-295	

TOTAL *CURRENT* CREDITS:	107	**TOTAL *PROPOSED* CREDITS:**	105-106
College Contact		**Telephone No.**	
E-Mail Address		**Fax No.**	
Chief Academic Officer *or* CTE 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	

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 – Civil Engineering** AS.OSUCIVILENGR				**Associate of Applied Science Area of Emphasis**	**97**
Partnering Institution Name **Oregon State University**					

Last amendment approved on 11.05.21

TYPE OF PROGRAM AMENDMENT

(Check **ALL** That Apply)

☐ **New Agreement**	☐ **Curriculum Revision**	☐ **Revision in Program Credits**	
		Proposed **Total Credits:**	**100-101**
☐ ***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 22-23				***PROPOSED CURRICULUM 23-24***			
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				
Winter Term							
CDT-103	Computer-Aided Drafting I	66	3				
CH-222	General Chemistry	77	5				
ENGR-112	Engineering Programming	33	3				
MTH-252	Calculus II	55	5				
Spring Term							
COMM-111	Public Speaking	44	4				
EC-201	Principles of Economics: MICRO	44	4				
MTH-254	Vector Calculus	55	5				
WR-227	Technical Report Writing	44	4				
Summer Term							
GIS-201	Introduction to Geographic Information Systems	66	3				
MTH-256	Differential Equations	44	4				
Program Requirements – 2nd Year							
Fall Term							
ENGR-211	Statics	44	4				
PH-211	General Physics with Calculus	77	5				
--	Western Culture elective		4				
				MTH-253	Calculus III	55	5
Winter Term							
ENGR-212	Dynamics	44	4				
MTH-253	Calculus III	55	5	Move to Fall Term			
PH-212	General Physics with Calculus	77	5				
				CS-161	Computer Science I	44	4
Spring Term							
ENGR-201	Electrical Fundamentals	66	4	REMOVE			
ENGR-213	Strength of Materials	44	4				
PH-213	General Physics with Calculus	77	5				
				--	Literature and the Arts Elective		3-4
Western Culture Elective							
ART-204, 205, 206; **ENG**-107, 108, 109, 201, 202, 204, 205, 250, 251, 253, 254, 255; **GEO**-208; **HST**-101, 102, 103, 132, 201, 202, 203; **PHL**-102; **R**-204;							
Optional: While not required for the A.S. degree, students may complete additional coursework at CCC that will meet requirements for the Bachelor of Science degree at Oregon State University. The Bachelor of Science degree requires the completion of one course from each category below.							
Cultural Diversity Elective							
ANT-232;							

ENG-213, 252; **GEO**-110; **R**-101, 102, 103, 210;	
Literature and the Arts Elective	
ART-101, 204, 205, 206; **ENG**-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 204, 205, 213, 226, 230, 241, 250, 251, 252, 253, 254, 255, 260, 270; **MUS**-105, 205, 206;	MOVE TO BEFORE OPTIONAL STATEMENT
Difference, Power, and Discrimination Elective	
HST-201, 202, 203; **SOC**-225;	
Biological Science Elective	
BI-101, 102, 103, 165CL, 175, 176, 177, 204, 211, 212, 213, 234; **ESR**-171, 172, 173; **Z**-201, 202, 203;	

TOTAL *CURRENT* CREDITS:	97	**TOTAL *PROPOSED* CREDITS:**	100-101

College Contact		**Telephone No.**	
E-Mail Address		**Fax No.**	
Chief Academic Officer *or* CTE 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	

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 – Civil** AS.PSUCIVILENGR				**Associate of Applied Science Area of Emphasis**	**95-96**
Partnering Institution Name **Portland State University**					

Last amendment approved on 01.21.22

TYPE OF PROGRAM AMENDMENT (Check **ALL** That Apply)			
☐ New Agreement	☐ Curriculum Revision	☐ Revision in Program Credits	
		Proposed **Total Credits:**	
☐ ***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 22-23				***PROPOSED CURRICULUM 23-24***			
Course	**Title**	**Hours**	**Credits**	**Course**	**Title**	**Hours**	**Credits**
Program Requirements – First 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				
Winter Term							
CH-222	General Chemistry	77	5				
ENGR-112	Engineering Programming	33	3				
MTH-252	Calculus II	55	5				
Spring Term							
COMM-111	Public Speaking	44	4				
MTH-254	Vector Calculus	55	5				
WR-227	Technical Report Writing	44	4				
--	Arts & Letters elective		4				
Program Requirements – Second Year							
Fall Term							
ENGR-211	Statics	44	4				
GIS-201	Introduction to Geographic Information Systems	66	3				
PH-211	General Physics with Calculus	77	5				
--	Social Science elective		4				
Winter Term							
CDT-103	Computer-Aided Drafting I	66	3				
ENGR-212	Dynamics	44	4				
MTH-256	Differential Equations	44	4				
PH-212	General Physics with Calculus	77	5				
Spring Term							
ENGR-213	Strength of Materials	44	4				
MTH-261	Linear Algebra	44	4				
PH-213	General Physics with Calculus	77	5				
--	Arts & Letters or Social Science elective		3-4				
Arts & Letters Electives							
All courses in **ASL, COMM, ENG, FR, GER, HUM, PHL, SPN, WR**. Note that native speakers should only take advanced (300 level or above) foreign language courses. Non-performance based courses in art, journalism, music, and theater also meet this requirement. The accepted courses at CCC are: **ART**-101, 205, 206; **J**-211; **MUS**-105, 141, 205, 206, 230; **TA**-101, 102;							
Social Science Electives							
All courses in **ANT, EC, GEO, HST, PS, PSY, SOC, SSC,** and **WS**.				All courses in **ANT, EC, ES, GEO, HST, PS, PSY, SOC, SSC,** and **WS.** Students transferring with 90 credits or more will need to complete one race and ethnic studies class in order to graduate with their bachelor's degree. Students can choose to complete this requirement at CCC by taking one of the following: ES-211, ES-221, or ES-241. Alternatively, they can wait to complete the requirement at PSU. If students complete			

		the race and ethnic studies requirement at CCC, they will simultaneously earn credits toward the social science elective requirement.		
Recommended:				
Take Plane Surveying (CE-211/CS-212) at PSU before beginning junior year at PSU. Take one additional Arts & Letters or Social Science elective.				
TOTAL *CURRENT* CREDITS:	95-96	**TOTAL *PROPOSED* CREDITS:**		
College Contact	Eric Lee	**Telephone No.**	6163	
E-Mail Address		**Fax No.**		
Chief Academic Officer *or* CTE 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	

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 – Computer AS.PSUCOMPENGR				**Associate of Applied Science Area of Emphasis**	**100-101**
Partnering Institution Name Portland State University					

Last amendment approved on 01.21.22

TYPE OF PROGRAM AMENDMENT (Check **ALL** That Apply)			
☐ New Agreement	☐ Curriculum Revision	☐ Revision in Program Credits	
		Proposed **Total Credits:**	
☐ ***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 22-23				***PROPOSED CURRICULUM 23-24***			
Course	**Title**	**Hours**	**Credits**	**Course**	**Title**	**Hours**	**Credits**
Program Requirements – First Year							
Fall Term							
CH-221	General Chemistry	77	5				
CS-161	Computer Science I	44	4				
ENGR-111	Introduction to Engineering	33	3				
MTH-251	Calculus I	55	5				
Winter Term							
CS-162	Computer Science II	44	4				
ENGR-112	Engineering Programming	33	3				
ENGR-171	Digital Logic	66	4				
MTH-252	Calculus II	55	5				
Spring Term							
COMM-111	Public Speaking	44	4				
ENGR-271	Digital Systems	66	4				
MTH-261	Linear Algebra	44	4				
WR-121	English Composition	44	4				
Summer Term							
WR-122 Or WR-227	English Composition or Technical Report Writing	44	4				
Program Requirements – Second Year							
Fall Term							
ENGR-221	Electrical Circuit Analysis I	33	4				
PH-211	General Physics with Calculus	77	5				
--	Arts & Letters elective		4				
Winter Term							
ENGR-222	Electrical Circuit Analysis II	66	4				
MTH-256	Differential Equations	44	4				
PH-212	General Physics with Calculus	77	5				
--	Social Science elective		4				
Spring Term							
ENGR-223	Electrical Circuit Analysis III	66	4				
MTH-253	Calculus III	55	5				
PH-213	General Physics with Calculus	77	5				
--	Arts & Letters or Social Science elective		3-4				

Arts & Letters or Social Science Electives

Arts & Letters	
All courses in **ASL, COMM, ENG, FR, GER, HUM, PHL, SPN, WR**. Note that native speakers should only take advanced (300 level or above) world language courses. Non-performance based courses in art, journalism, music, and theater also meet this requirement. The accepted courses at CCC are: **ART**-101, 205, 206; **J**-211; **MUS**-105, 141, 205, 206, 230; **TA**-101, 102;	
Social Science	
All courses in **ANT, EC, GEO, HST, PS, PSY, SOC, SSC,** and **WS.**	All courses in **ANT, EC, ES, GEO, HST, PS, PSY, SOC, SSC,** and **WS.** Students transferring with 90 credits or more will need to complete one race and ethnic studies class in order to graduate with their bachelor's

		degree. Students can choose to complete this requirement at CCC by taking one of the following: ES-211, ES-221, or ES-241. Alternatively, they can wait to complete the requirement at PSU. If students complete the race and ethnic studies requirement at CCC, they will simultaneously earn credits toward the social science elective requirement.			
TOTAL *CURRENT* CREDITS:	100-101	**TOTAL *PROPOSED* CREDITS:**			
College Contact		**Telephone No.**			
E-Mail Address		**Fax No.**			
Chief Academic Officer *or* CTE 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	

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 – Construction Engineering Management** AS.OSUCONENRMGT				**Associate of Applied Science Area of Emphasis**	**91-93**
Partnering Institution Name **Oregon State University**					

Elective credits changed during catalog edits, NOT APPROVED

Last amendment approved on 11.05.21

TYPE OF PROGRAM AMENDMENT

(Check **ALL** That Apply)

☐ New Agreement	☐ Curriculum Revision	☐ Revision in Program Credits	
		Proposed **Total Credits:**	**95-97**
☐ ***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 22-23				***PROPOSED CURRICULUM 23-24***			
Course Number	**Course Title**	**Clock Hours**	**Credits**	**Course Number**	**Course Title**	**Clock 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				
Winter Term							
BA-226	Business Law I	44	4				
CDT-103	Computer-Aided Drafting I	66	3				
ENGR-112	Engineering Programming	33	3				
MTH-252	Calculus II	55	5				
Spring Term							
EC-201	Principles of Economics: MICRO	44	4				
EC-202	Principles of Economics: MACRO	44	4				
— —	Biological Science elective		4-5				
— —	Literature and the Arts elective		3-4				
Program Requirements – 2nd Year							
Fall Term							
ENGR-211	Statics	44	4				
HPE-295	Health & Fitness for Life	60	3				
PH-211	General Physics with Calculus	77	5				
				CS-161	Computer Science I	44	4
Winter Term							
BA-315/BA-OSU	Accounting for Decision Making (online through OSU)		4				
PH-212	General Physics with Calculus	77	5				
PHL-102	Ethics	44	4				
— —	Cultural Diversity elective		4				
Spring Term							
COMM-111	Public Speaking	44	4				
ENGR-213	Strength of Materials	44	4				
ENGR-390/ENGR-OSU	Engineering Economy (online through OSU)		3				
WR-227	Technical Report Writing	44	4				
Cultural Diversity Elective							
ANT-232; **ENG**-213, 252; **GEO**-110; **R**-101, 102, 103, 210;							
Literature and the Arts Elective							
ART-101, 204, 205, 206; **ENG**-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 204, 205, 213, 226, 230, 241, 250, 251, 252, 253, 254, 255, 260, 270; **MUS**-105, 205, 206;							
Biological Science Elective							
BI-101, 102, 103, 165CL, 175, 176, 177, 204, 211, 212, 213, 234; **ESR**-171, 172, 173; **Z**-201, 202, 203;							
Catalog Notes							

Optional: While not required for the AS degree, students may complete additional coursework at CCC that will meet requirements for the Bachelor of Science degree at Oregon State University. The Bachelor of Science degree requires the completion of one course from the category below.			
Difference, Power, and Discrimination Elective			
HST-201**,** 202**,** 203; **SOC-**225**;**			
TOTAL *CURRENT* CREDITS:	91-93	**TOTAL *PROPOSED* CREDITS:**	95-97
College Contact		**Telephone No.**	
E-Mail Address		**Fax No.**	
Chief Academic Officer *or* CTE 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	

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 – Ecological Engineering** AS.OSUECOLENGR				**Associate of Applied Science Area of Emphasis**	**102-103**
Partnering Institution Name **Oregon State University**					

Last amendment approved on 11.05.21

TYPE OF PROGRAM AMENDMENT

(Check **ALL** That Apply)

☐ **New Agreement**	☐ **Curriculum Revision**	☐ **Revision in Program Credits**	
		Proposed **Total Credits:**	
☐ ***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 22-23				***PROPOSED CURRICULUM 23-24***			
Course	**Title**	**Hours**	**Credits**	**Course**	**Title**	**Hours**	**Credits**
Program Requirements – 1st Year							
Fall Term							
COMM-111	Public Speaking	44	4				
ENGR-111	Introduction to Engineering	33	3				
MTH-251	Calculus I	55	5				
WR-121	English Composition	44	4				
Winter Term							
CH-221	General Chemistry	77	5				
ENGR-112	Engineering Programming	33	3				
MTH-252	Calculus II	55	5				
--	Literature and the Arts Elective		3-4				
Spring Term							
CH-222	General Chemistry	77	5				
MTH-254	Vector Calculus	55	5				
WR-227	Technical Report Writing	44	4				
Summer Term							
CH-223	General Chemistry	77	5				
MTH-256	Differential Equations	44	4				
Program Requirements – 2nd Year							
Fall Term							
BI-211	General Biology for Science Majors (Cellular Biology)	77	5	REMOVE			
ENGR-211	Statics	44	4				
PH-211	General Physics with Calculus	77	5				
				--	Cultural Diversity Elective		4
				--	Difference, Power, and Discrimination Elective		4
Winter Term							
BI-212	General Biology for Science Majors (Animal Biology)	77	5	REMOVE			
MTH-253	Calculus III	55	5				
PH-212	General Physics with Calculus	77	5				
				CS-161	Computer Science I	44	4
				HPE-295	Health and Fitness for Life	60	3
Spring Term							
BI-213	General Biology for Science Majors (Plant Biology & Ecology)	77	5	REMOVE			
ENGR-213	Strength of Materials	44	4				
PH-213	General Physics with Calculus	77	5				
--	Western Culture elective		4	REMOVE			
				PHL-102	Ethics	44	4
Western Culture Elective							
ART-204, 205, 206; **ENG**-107, 108, 109, 201, 202, 204, 205, 250, 251, 253, 254, 255; **GEO**-208; **HST**-101, 102, 103, 201, 202, 203; **PHL**-102; **R**-204;				REMOVE			
Literature and the Arts Elective							
ART-101, 204, 205, 206;							

ENG-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 204, 205, 213, 226, 230, 241, 250, 251, 252, 253, 254, 255, 260, 270; **MUS**-105, 205, 206;	
Optional: While not required for the A.S. degree, students may complete additional coursework at CCC that will meet requirements for the Bachelor of Science Degree at Oregon State University. The Bachelor of Science degree requires the completion of one course from each category below	REMOVE
Cultural Diversity Elective	
ANT-232; **ENG**-213, 252; **GEO-**110; **R-**101, 102, 103, 210;	
Difference, Power, and Discrimination Elective	
HST-201, 202, 203; **SOC**-225;	
Physical Education Elective	
HPE-295;	REMOVE

TOTAL *CURRENT* CREDITS:	102-103	**TOTAL *PROPOSED* CREDITS:**	
College Contact		**Telephone No.**	
E-Mail Address		**Fax No.**	
Chief Academic Officer *or* CTE 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	

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 AS.PSUELECTENGR				Associate of Applied Science Area of Emphasis	105-106
Partnering Institution Name Portland State University					

Last amendment approved on 01.21.22

TYPE OF PROGRAM AMENDMENT

(Check **ALL** That Apply)

☐ New Agreement	☐ Curriculum Revision	☐ Revision in Program Credits	
		Proposed Total Credits:	
☐ *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 22-23				***PROPOSED CURRICULUM 23-24***			
Course	**Title**	**Hours**	**Credits**	**Course**	**Title**	**Hours**	**Credits**
Program Requirements – First Year							
Fall Term							
CH-221	General Chemistry	77	5				
CS-161	Computer Science I	44	4				
ENGR-111	Introduction to Engineering	33	3				
MTH-251	Calculus I	55	5				
Winter Term							
CS-162	Computer Science II	44	4				
ENGR-112	Engineering Programming	33	3				
ENGR-171	Digital Logic	66	4				
MTH-252	Calculus II	55	5				
Spring Term							
COMM-111	Public Speaking	44	4				
ENGR-271	Digital Systems	66	4				
MTH-261	Linear Algebra	44	4				
WR-121	English Composition	44	4				
Summer Term							
WR-122 Or WR-227	English Composition or Technical Report Writing	44	4				
Program Requirements – Second Year							
Fall Term							
ENGR-221	Electrical Circuit Analysis I	33	4				
MTH-254	Vector Calculus	55	5				
PH-211	General Physics with Calculus	77	5				
--	Arts & Letters elective		4				
Winter Term							
ENGR-222	Electrical Circuit Analysis II	66	4				
MTH-256	Differential Equations	44	4				
PH-212	General Physics with Calculus	77	5				
--	Social Science elective		4				
Spring Term							
ENGR-223	Electrical Circuit Analysis III	66	4				
MTH-253	Calculus III	55	5				
PH-213	General Physics with Calculus	77	5				
--	Arts & Letters or Social Science elective		3-4				

Arts & Letters or Social Science Electives

Arts & Letters	
All courses in **ASL, COMM, ENG, FR, GER, HUM, PHL, SPN, WR**. Note that native speakers should only take advanced (300 level or above) world language courses. Non-performance based courses in art, journalism, music, and theater also meet this requirement. The accepted courses at CCC are: **ART**-101, 205, 206; **J**-211; **MUS**-105, 141, 205, 206, 230; **TA**-101, 102;	
Social Science	
All courses in **ANT, EC, GEO, HST, PS, PSY, SOC, SSC,** and **WS.**	All courses in **ANT, EC, ES, GEO, HST, PS, PSY, SOC, SSC,** and **WS.** Students transferring with 90 credits or more will need to complete one race and ethnic studies class in order to graduate with their bachelor's

	degree. Students can choose to complete this requirement at CCC by taking one of the following: ES-211, ES-221, or ES-241. Alternatively, they can wait to complete the requirement at PSU. If students complete the race and ethnic studies requirement at CCC, they will simultaneously earn credits toward the social science elective requirement.		
TOTAL *CURRENT* CREDITS:	105-106	**TOTAL *PROPOSED* CREDITS:**	
College Contact		**Telephone No.**	
E-Mail Address		**Fax No.**	
Chief Academic Officer *or* CTE 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	

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 – Environmental Engineering** AS.OSUENVIRENGR				**Associate of Applied Science Area of Emphasis**	**110**
Partnering Institution Name **Oregon State University**					

Last amendment approved on 11.05.21

TYPE OF PROGRAM AMENDMENT

(Check **ALL** That Apply)

☐ New Agreement	☐ Curriculum Revision	☐ Revision in Program Credits	
		Proposed **Total Credits:**	**106-107**
☐ ***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 22-23				PROPOSED CURRICULUM 23-24			
Course	**Title**	**Hours**	**Credits**	**Course**	**Title**	**Hours**	**Credits**
Program Requirements – First Year							
Fall Term							
ENGR-111	Introduction to Engineering	33	3				
MTH-251	Calculus I	55	5				
WR-121	English Composition	44	4				
--	Social Processes elective		4	Move to 2nd Year, Fall Term			
				CH-221	General Chemistry	77	5
Winter Term							
CH-221	General Chemistry	77	5	Move to Fall Term			
ENGR-112	Engineering Programming	33	3				
MTH-252	Calculus II	55	5				
WR-227	Technical Report Writing	44	4	Move to Spring Term			
				BI-204	Elementary Microbiology	44	4
				CH-222	General Chemistry	77	5
Spring Term							
CH-222	General Chemistry	77	5	Move to Winter Term			
ENGR-115	Engineering Graphics	33	3				
MTH-254	Vector Calculus	55	5				
--	Western Culture elective		4	Move to 2nd Year, Winter Term			
				CH-223	General Chemistry	77	5
				WR-227	Technical Report Writing	44	4
Summer Term							
CH-223	General Chemistry	77	5	Move to Spring Term			
COMM-111	Public Speaking	44	4				
MTH-256	Differential Equations	44	4				
Program Requirements – Second Year							
Fall Term							
CH-241	Organic Chemistry I	77	5	REMOVE			
ENGR-211	Statics	44	4				
PH-211	General Physics with Calculus	77	5				
				--	Literature and the Arts Elective		3-4
				--	Social Processes elective		4
Winter Term							
CH-242	Organic Chemistry II	77	5	REMOVE			
ENGR-212	Dynamics	44	4				
PH-212	General Physics with Calculus	77	5				
				--	Western Culture elective		4
Spring Term							
CH-243	Organic Chemistry III	77	5	REMOVE			
ENGR-213	Strength of Materials	44	4				
MTH-253	Calculus III	55	5				
PH-213	General Physics with Calculus	77	5				
				--	Cultural Diversity Elective		4

Social Processes Elective

ANT-103;
EC-201, 202;
HST-101, 102, 103;
PS-201, 204, 205, 225;
PSY-200, 205, 219, 231;
SOC-204, 205, 206;

Western Culture Elective	
ART-204, 205, 206; **ENG**-107, 108, 109, 201, 202, 204, 205, 250, 251, 253, 254, 255; **GEO**-208; **HST**-101, 102, 103, 132, 201, 202, 203; **PHL**-102; **R**-204;	
Optional: While not required for the A.S. degree, students may complete additional coursework at CCC that will meet requirements for the Bachelor of Science degree at Oregon State University. The Bachelor of Science degree requires the completion of one course from each category below.	
Cultural Diversity Elective	
ANT-232; **ENG**-213, 252; **GEO-**110; **R-**101, 102, 103, 210;	Move above Optional Note
Literature and the Arts Elective	
ART-101, 204, 205, 206; **ENG**-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 204, 205, 213, 226, 230, 241, 250, 251, 252, 253, 254, 255, 260, 270; **MUS**-105, 205, 206;	Move above Optional Note
Difference, Power, and Discrimination Elective	
HST-201, 202, 203; **SOC**-225;	
Biological Science Elective	
BI-101, 102, 103, 165CL, 175, 176, 177, 204, 211, 212, 213, 234; **ESR**-171, 172, 173; **Z**-201, 202, 203;	
Physical Education Elective	
HPE-295;	

TOTAL *CURRENT* CREDITS:	110	**TOTAL *PROPOSED* CREDITS:**	106-107

College Contact		**Telephone No.**	
E-Mail Address		**Fax No.**	
Chief Academic Officer *or* CTE 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	

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 –Environmental AS.PSUENVIRENGR				Associate of Applied Science Area of Emphasis	99-100
Partnering Institution Name Portland State University					

Last amendment approved on 01.21.22

TYPE OF PROGRAM AMENDMENT

(Check **ALL** That Apply)

☐ New Agreement	☐ Curriculum Revision	☐ Revision in Program Credits
		Proposed Total Credits:
☐ ***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 22-23				***PROPOSED CURRICULUM 23-24***			
Course	**Title**	**Hours**	**Credits**	**Course**	**Title**	**Hours**	**Credits**
Program Requirements – First 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				
Winter Term							
BI-204	Elementary Microbiology	66	4				
CH-222	General Chemistry	77	5				
ENGR-112	Engineering Programming	33	3				
MTH-252	Calculus II	55	5				
Spring Term							
COMM-111	Public Speaking	44	4				
MTH-254	Vector Calculus	55	5				
WR-227	Technical Report Writing	44	4				
--	Arts & Letters elective		4				
Program Requirements – Second Year							
Fall Term							
ENGR-211	Statics	44	4				
GIS-201	Introduction to Geographic Information Systems	66	3				
PH-211	General Physics with Calculus	77	5				
--	Social Science elective		4				
Winter Term							
CDT-103	Computer-Aided Drafting I	66	3				
ENGR-212	Dynamics	44	4				
MTH-256	Differential Equations	44	4				
PH-212	General Physics with Calculus	77	5				
Spring Term							
ENGR-213	Strength of Materials	44	4				
MTH-261	Linear Algebra	44	4				
PH-213	General Physics with Calculus	77	5				
--	Arts & Letters or Social Science elective		3-4				
Arts & Letters Electives							
All courses in **ASL, COMM, ENG, FR, GER, HUM, PHL, SPN, WR**. Note that native speakers should only take advanced (300 level or above) foreign language courses. Non-performance based courses in art, journalism, music, and theater also meet this requirement. The accepted courses at CCC are: **ART**-101, 205, 206; **J**-211; **MUS**-105, 141, 205, 206, 230; **TA**-101, 102;							
Social Science Electives							
All courses in **ANT, EC, GEO, HST, PS, PSY, SOC, SSC,** and **WS.**				All courses in **ANT, EC, ES, GEO, HST, PS, PSY, SOC, SSC,** and **WS.** Students transferring with 90 credits or more will need to complete one race and ethnic studies class in order to graduate with their bachelor's degree. Students can choose to complete this requirement at CCC by taking one of the following: ES-211, ES-221, or ES-241. Alternatively, they can wait to complete the requirement at PSU. If students complete		

			the race and ethnic studies requirement at CCC, they will simultaneously earn credits toward the social science elective requirement.		
Recommended:					
Take one additional Arts & Letters or Social Science elective.					
TOTAL *CURRENT* CREDITS:		99-100	**TOTAL *PROPOSED* CREDITS:**		
College Contact	Eric Lee		**Telephone No.**	6163	
E-Mail Address			**Fax No.**		
Chief Academic Officer *or* CTE 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	

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 – Industrial/Manufacturing AS.OSUINDMFGENG				**Associate of Applied Science Area of Emphasis**	**92-93**
Partnering Institution Name Oregon State University					

Last amendment approved on 11.05.21

TYPE OF PROGRAM AMENDMENT

(Check **ALL** That Apply)

☐ **New Agreement**	☐ **Curriculum Revision**	☐ **Revision in Program Credits**	
		***Proposed* Total Credits:**	**99-100**
☐ ***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 22-23				***PROPOSED CURRICULUM 23-24***			
Course	**Title**	**Hours**	**Credits**	**Course**	**Title**	**Hours**	**Credits**
Program Requirements – First Year							
Fall Term							
COMM-111	Public Speaking	44	4				
ENGR-111	Introduction to Engineering	33	3				
MTH-251	Calculus I	55	5				
WR-121	English Composition	44	4				
Winter Term							
CH-221	General Chemistry	77	5				
ENGR-112	Engineering Programming	33	3				
MTH-252	Calculus II	55	5				
Spring Term							
CH-222	General Chemistry	77	5				
ENGR-115	Engineering Graphics	33	3				
MTH-254	Vector Calculus	55	5				
WR-227	Technical Report Writing	44	4				
Summer Term							
MTH-256	Differential Equations	44	4				
--	Social Processes elective		4				
Program Requirements – Second Year							
Fall Term							
ENGR-211	Statics	44	4				
PH-211	General Physics with Calculus	77	5				
--	Western Culture elective		4				
Winter Term							
ENGR-212	Dynamics	44	4				
PH-212	General Physics with Calculus	77	5				
--	Literature and the Arts Elective		3-4				
				CS-161	Computer Science I	44	4
Spring Term							
ENGR-201	Electrical Fundamentals	66	4				
ENGR-213	Strength of Materials	44	4				
PH-213	General Physics with Calculus	77	5				
				HPE-295	Health & Fitness for Life	60	3

Social Processes Elective	
ANT-103; **EC**-201, 202; **HST**-101, 102, 103; **PS**-201, 204, 205, 225; **PSY**-200, 205, 219, 231; **SOC**-204, 205, 206;	

Western Culture Elective	
ART-204, 205, 206; **ENG**-107, 108, 109, 201, 202, 204, 205, 250, 251, 253, 254, 255; **GEO**-208; **HST**-101, 102, 103, 132, 201, 202, 203; **PHL**-102; **R**-204;	

Literature and the Arts Elective	
ART-101, 204, 205, 206; **ENG**-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 204, 205, 213, 226, 230, 241, 250, 251, 252, 253, 254, 255, 260, 270; **MUS**-105, 205, 206;	

Optional: While not required for the A.S. degree, students may complete additional coursework at CCC that will meet requirements for the Bachelor of Science degree at Oregon State University. The Bachelor of Science degree requires the completion of one course from each category below.	
Cultural Diversity Elective	
ANT-232; **ENG**-213, 252; **GEO-**110; **R-**101, 102, 103, 210;	
Difference, Power, and Discrimination Elective	
HST-201, 202, 203; **SOC**-225;	
Biological Science Elective	
BI-101, 102, 103, 165CL, 175, 176, 177, 204, 211, 212, 213, 234; **ESR**-171, 172, 173; **Z**-201, 202, 203;	
Physical Education Elective	
HPE-295;	REMOVE

TOTAL *CURRENT* CREDITS:	92-93	**TOTAL *PROPOSED* CREDITS:**	99-100
College Contact	Eric Lee	**Telephone No.**	X6163
E-Mail Address		**Fax No.**	
Chief Academic Officer *or* CTE 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	

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 – Mechanical Engineering** AS.OSUSMECHENGR				**Associate of Applied Science Area of Emphasis**	**96-97**
Partnering Institution Name **Oregon State University**					

Last amendment approved on 11.05.21

TYPE OF PROGRAM AMENDMENT (Check **ALL** That Apply)			
☐ New Agreement	☐ Curriculum Revision	☐ Revision in Program Credits	
		Proposed **Total Credits:**	**100-101**
☐ ***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 22-23				***PROPOSED CURRICULUM 23-24***			
Course	**Title**	**Hours**	**Credits**	**Course**	**Title**	**Hours**	**Credits**
Program Requirements – First Year							
Fall Term							
COMM-111	Public Speaking	44	4				
ENGR-111	Introduction to Engineering	33	3				
MTH-251	Calculus I	55	5				
WR-121	English Composition	44	4				
Winter Term							
CH-221	General Chemistry	77	5				
EC-201 Or EC-202	Principles of Economics: MICRO or Principles of Economics: MACRO	44	4				
ENGR-112	Engineering Programming	33	3				
MTH-252	Calculus II	55	5				
Spring Term							
CH-222	General Chemistry	77	5				
ENGR-115	Engineering Graphics	33	3				
MTH-254	Vector Calculus	55	5				
WR-227	Technical Report Writing	44	4				
Summer Term							
MTH-256	Differential Equations	44	4				
Program Requirements – Second Year							
Fall Term							
ENGR-211	Statics	44	4				
ENGR-221	Electrical Circuit Analysis I	33	4				
PH-211	General Physics with Calculus	77	5				
--	Western Culture elective		4				
Winter Term							
ENGR-212	Dynamics	44	4				
ENGR-222	Electrical Circuit Analysis II	66	4				
PH-212	General Physics with Calculus	77	5				
				CS-161	Computer Science I	44	4
Spring Term							
ENGR-213	Strength of Materials	44	4				
PH-213	General Physics with Calculus	77	5				
--	Literature and the Arts Elective		3-4				
Western Culture Elective							
ART-204, 205, 206; **ENG**-107, 108, 109, 201, 202, 204, 205, 250, 251, 253, 254, 255; **GEO**-208; **HST**-101, 102, 103, 132, 201, 202, 203; **PHL**-102; **R**-204;							
Literature and the Arts Elective							
ART-101, 204, 205, 206; **ENG**-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 204, 205, 213, 226, 230, 241, 250, 251, 252, 253, 254, 255, 260, 270; **MUS**-105, 205, 206;							
Optional: While not required for the A.S. degree, students may complete additional coursework at CCC that will meet requirements for the Bachelor of Science degree at Oregon State							

University. The Bachelor of Science degree requires the completion of one course from each category below.	
Cultural Diversity Elective	
ANT-232; **ENG**-213, 252; **GEO-**110; **R-**101, 102, 103, 210;	
Difference, Power, and Discrimination Elective	
HST-201, 202, 203; **SOC**-225;	
Biological Science Elective	
BI-101, 102, 103, 165CL, 175, 176, 177, 204, 211, 212, 213, 234; **ESR**-171, 172, 173; **Z**-201, 202, 203;	
Physical Education Elective	
HPE-295;	

TOTAL *CURRENT* CREDITS:	96-97	**TOTAL *PROPOSED* CREDITS:**	100-101
College Contact	Eric Lee	**Telephone No.**	X6163
E-Mail Address		**Fax No.**	
Chief Academic Officer *or* CTE 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
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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	

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 – Mechanical** AS.PSUMECHENGR				**Associate of Applied Science Area of Emphasis**	**100-101**
Partnering Institution Name **Portland State University**					

Last amendment approved on 05.01.2020

TYPE OF PROGRAM AMENDMENT

(Check **ALL** That Apply)

☐ **New Agreement**	☐ **Curriculum Revision**	☐ **Revision in Program Credits**	
		Proposed **Total Credits:**	
☐ ***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 22-23				***PROPOSED CURRICULUM 23-24***			
Course	**Title**	**Hours**	**Credits**	**Course**	**Title**	**Hours**	**Credits**
Program Requirements – First 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				
Winter Term							
CH-222	General Chemistry	77	5				
ENGR-112	Engineering Programming	33	3				
ENGR-231	Properties of Materials	66	4				
MTH-252	Calculus II	55	5				
Spring Term							
COMM-111	Public Speaking	44	4				
ENGR-115	Engineering Graphics	33	3				
MTH-254	Vector Calculus	55	5				
--	Arts & Letters or Social Science elective		4	REMOVE			
				WR-122 Or WR-227	English Composition Or Technical Report Writing	44	4
Program Requirements – Second Year							
Fall Term							
ENGR-211	Statics	44	4				
MTH-261	Linear Algebra	44	4				
PH-211	General Physics with Calculus	77	5				
--	Arts & Letters elective		4				
Winter Term							
ENGR-212	Dynamics	44	4				
MTH-256	Differential Equations	44	4				
PH-212	General Physics with Calculus	77	5				
--	Social Science elective		4				
Spring Term							
ENGR-201	Electrical Fundamentals	66	4				
ENGR-213	Strength of Materials	44	4				
PH-213	General Physics with Calculus	77	5				
--	Arts & Letters or Social Science elective		3-4				

Arts & Letters or Social Science Electives

Arts & Letters

All courses in **ASL, COMM, ENG, FR, GER, HUM, PHL, SPN, WR**. Note that native speakers should only take advanced (300 level or above) world language courses. Non-performance based courses in art, journalism, music, and theater also meet this requirement. The accepted courses at CCC are: **ART**-101, 205, 206; **J**-211; **MUS**-105, 141, 205, 206, 230; **TA**-101, 102;	

Social Science

All courses in **ANT, EC, GEO, HST, PS, PSY, SOC, SSC,** and **WS.**	All courses in **ANT, EC, ES, GEO, HST, PS, PSY, SOC, SSC,** and **WS.** Students transferring with 90 credits or more will need to complete one race and ethnic studies class in order to graduate with their bachelor's

	degree. Students can choose to complete this requirement at CCC by taking one of the following: ES-211, ES-221, or ES-241. Alternatively, they can wait to complete the requirement at PSU. If students complete the race and ethnic studies requirement at CCC, they will simultaneously earn credits toward the social science elective requirement.
Optional	
While not required for the AS degree, mechanical engineering students may complete additional coursework at CCC that will meet requirements for the Bachelor of Science degree at Portland State University. Additional courses include (1) One additional Arts & Letters or Social Science elective and (2) Approved Science Elective: Any minimum 4 credit course from Biology, Chemistry, Environmental Science, Geology, or Physics.	

TOTAL *CURRENT* CREDITS:	100-101	**TOTAL *PROPOSED* CREDITS:**	
College Contact		**Telephone No.**	
E-Mail Address		**Fax No.**	
Chief Academic Officer *or* CTE Dean Signature		**Date**	

New Programs

December 2, 2022

Program	Implementation
AS, Architectural Engineering, OSU	2023/SU

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	

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 – Architectural Engineering** AS.OSUARCHENGR				**Associate of Applied Science Area of Emphasis**	**105**
Partnering Institution Name **Oregon State University**					

TYPE OF PROGRAM AMENDMENT

(Check **ALL** That Apply)

x **New Agreement**	☐ **Curriculum Revision**	☐ **Revision in Program Credits**	
		Proposed **Total Credits:**	**105**
☐ *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 22-23				*PROPOSED CURRICULUM 23-24*			
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				
Winter Term							
CDT-103	Computer-Aided Drafting I	66	3				
CH-222	General Chemistry	77	5				
ENGR-112	Engineering Programming	33	3				
MTH-252	Calculus II	55	5				
Spring Term							
COMM-111	Public Speaking	44	4				
EC-201	Principles of Economics: MICRO	44	4				
MTH-254	Vector Calculus	55	5				
WR-227	Technical Report Writing	44	4				
Summer Term							
MTH-256	Differential Equations	44	4				
Program Requirements – 2nd Year							
Fall Term							
ENGR-211	Statics	44	4				
PH-211	General Physics with Calculus	77	5				
PHL-102	Ethics	44	4				
MTH-253	Calculus III	55	5				
Winter Term							
PH-212	General Physics with Calculus	77	5				
CS-161	Computer Science I	44	4				
HPE-295	Health & Fitness for Life	60	3				
— —	Cultural Diversity elective		4				
Spring Term							
ENGR-201	Electrical Fundamentals	66	4				
ENGR-213	Strength of Materials	44	4				
PH-213	General Physics with Calculus	77	5				
— —	Difference, Power, and Discrimination elective		4				
Cultural Diversity Elective							
ANT-232; **ENG**-213, 252; **GEO**-110; **R**-101, 102, 103, 210;							
Difference, Power, and Discrimination Elective							
HST-201, 202, 203; **SOC**-225;							
Optional: While not required for the A.S. degree, students may complete additional coursework at CCC that will meet requirements for the Bachelor of Science degree at Oregon State University. The Bachelor of Science degree requires the completion of one course from each category below.							
Biological Science Elective							
BI-101, 102, 103, 165CL, 175, 176, 177, 204, 211, 212, 213, 234; **ESR**-171, 172, 173; **Z**-201, 202, 203;							

TOTAL *CURRENT* CREDITS:	105	**TOTAL *PROPOSED* CREDITS:**			
College Contact	Eric Lee	**Telephone No.**	x6163		
E-Mail Address	elee@clackamas.edu	**Fax No.**			
Chief Academic Officer *or* CTE Dean Signature				**Date**	