## Program Amendments

January 18, 2019 (8-10am, CC127)

| Program |
| :--- |
| Administrative Assistant CC |
| Administrative Professional AAS |
| AS Engineering - George Fox |
| AS Engineering - OIT Electrical |
| AS Engineering - OIT Mechanical |
| AS Engineering - OIT Renewable Energy |
| AS Engineering - OSU Biological |
| AS Engineering - OSU Chemical |
| AS Engineering - OSU Civil |
| AS Engineering - OSU Construction Engineering Management |
| AS Engineering - OSU Ecological |
| AS Engineering - OSU Electrical |
| AS Engineering - OSU Energy Systems |
| AS Engineering - OSU Environmental |
| AS Engineering - OSU Industrial Manufacturing |
| AS Engineering - OSU Mechanical |
| AS Engineering - PSU Civil Environmental |
| AS Engineering - PSU Electrical Computer |
| AS Engineering - PSU Mechanical |
| Auto Body/Collision Repair and Refinishing Technology AAS |
| Basic Health Sciences CPCC |
| Clinical Laboratory Assistant CC |
| Criminal Justice AAS |
| Criminal Justice AAS - Corrections Option |
| Emergency Medical Technology CC |
| Geographic Information Systems (GIS) Technology CC |
| Horticulture AAS |
| Human Resource Management CC |
| Landscape Management AAS |
| Landscape Management AAS - Arboriculture Option |
| Medical Assistant CC |
| Organic Farming CC |
| Retail Management CC |



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 |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\sqrt{\text { Business \& Management }}$ | $\square$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| APPROVED Program Title <br> (For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232) | $\frac{\text { APPROVED }}{\text { CIP Code }}$ <br> (Include $7^{\text {th }} \& 8^{\text {th }}$ digits <br> used for $0 c c u R S$ <br> reporting.) |  |  | APPROVED <br> Recognition Award | Current Credits |
| Parent AAS Title: Administrative Professional AAS |  |  |  | $\square$ AAS |  |
| Option Title** |  |  |  | OPTION to AAS Degree |  |
| Certificate Title: Within AAS Degree? V Yes** No <br> Administrative Assistant | 52.0401 |  |  | $\sqrt{\text { CC1R Related }}$  <br>  Certificate <br>  (45-60 credits) | 45 |

**Enter name of base degree in 'AAS Title' box Last amendment approved on 05.18.18

| TYPE OF PROGRAM AMENDMENT (Check ALL That Apply) |  |  |
| :---: | :---: | :---: |
| $\square$ New Program++ | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |
| $\square$ Title Change for Program |  | Proposed Total Credits: |
| Proposed AAS Title: |  |  |
| Proposed OPTION Title: |  |  |
| Proposed Certificate Title: |  |  |
| $\square$ SUSPENSION of Program | Reason for Suspension: |  |
| Suspension Effective Date: |  |  |


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20[List only course(s) to be amended] |  |  |  |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| Fall Term |  |  |  |  |  |  |  |
| BT-120 | Personal Keyboarding | 33 | 2 |  |  |  |  |
| BT-121 | Data Entry | 11 | 1 |  |  |  |  |
| BT-124 | Business Editing I | 33 | 3 | Move to Term 2 |  |  |  |
| BT-160 | Word I | 55 | 3 |  |  |  |  |
| WR-121 | English Composition | 44 | 4 |  |  |  |  |
|  |  |  |  | BA-104 | Business Math | 33 | 3 |
|  |  |  |  | BA-131 | Introduction to Business Computing | 44 | 4 |
| Winter Term |  |  |  |  |  |  |  |
| BA-104 | Business Math | 33 | 3 | Move to Term 1 |  |  |  |
| BA-131 | Introduction to Business Computing | 44 | 4 |  |  |  |  |
| BT-122 | Keyboarding Skillbuilding | 33 | 2 |  |  |  |  |
| BT-125 | Business Editing II | 33 | 3 | Move to Term 3 |  |  |  |
| BT-161 | Word II | 55 | 3 |  |  |  |  |
|  |  |  |  | $\begin{aligned} & \hline \mathrm{BA}-111 \text { or } \\ & \mathrm{BA}-211 \end{aligned}$ | General Accounting I Financial Accounting I | 44 | 4 |
|  |  |  |  | BT-124 | Business Editing I | 33 | 3 |
|  |  |  |  | BT-160 | Word I | 55 | 3 |
|  |  |  |  | -- | Administrative Assistant program electives |  | 3 |
| Spring Term |  |  |  |  |  |  |  |
| $\begin{array}{\|l} \hline \mathrm{BA}-111 \text { or } \\ \mathrm{BA}-211 \\ \hline \end{array}$ | General Accounting I Financial Accounting I | 44 | 4 | Move to Term 2 |  |  |  |
| BA-285 | Human Relations in Business | 44 | 4 |  |  |  |  |
| BT-172 | Introduction to Microsoft Outlook | 33 | 2 |  |  |  |  |
| BT-216 | Office Procedures | 44 | 4 |  |  |  |  |
| -- | Administrative Assistant program electives |  | 3 |  | Move to Term 2 |  |  |
|  |  |  |  | BT-125 | Business Editing II | 33 | 3 |
|  |  |  |  | BT-161 | Word II | 55 | 3 |
| Program Electives |  |  |  |  |  |  |  |
| Any Business Administration (BA) or Business Technology (BT) course not included in the Administrative Assistant program. |  |  |  |  |  |  |  |
| TOTAL CURRENTCREDITS: |  |  | 45 | TOTAL PROPOSED CREDITS: |  |  |  |




## COMMUNITY COLLEGE PROGRAM AMENDMENT FORM

WORKFORCE DEVELOPMENT
WORKSOURCE OREGON
(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 |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\checkmark$ Business \& Management | $\square$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| APPROVED Program Title <br> (For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232) | APPR <br> Include $7^{\text {th }}$ <br> used for <br> report <br> 6-digit CIP |  | $\frac{8^{d h}}{\text { digit }}$ | APPROVED Recognition Award | Current Credits |
| AAS Title: Administrative Professional | 52.0401 |  |  | $\checkmark$ Statewide AAS (90-108 credits) | 90 |
| Option Title** |  |  |  | OPTION to AAS Degree |  |
| Related Certificates: <br> Administrative Assistant Certificate <br> Administrative Assistant Training Certificate |  |  |  | Certificate of Completion |  |

**Enter name of base degree in 'AAS Title' box
Last amendment approved on 05.18.18

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |
| :---: | :---: | :---: |
| - New Program++ | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |
| $\square$ Title Change for Program |  | 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.
lis \i:\curriculum office<br>(02) curriculum committee\1-meetings\2018-19 meeting handouts\2019-01.18\all program changes\amendments\amendment
administrative professional aas.docx\09202005

| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20[List only course(s) to be amended] |  |  |  |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| $1^{\text {st }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| BA-101 | Introduction to Business | 44 | 4 |  |  |  |  |
| BT-120 | Personal Keyboarding | 33 | 2 | Move to Term 2 |  |  |  |
| BT-121 | Data Entry | 11 | 1 |  |  |  |  |
| BT-124 | Business Editing I | 33 | 3 |  |  |  |  |
| WR-121 | English Composition | 44 | 4 |  |  |  |  |
|  |  |  |  | BA-104 | Business Math | 33 | 3 |
|  |  |  |  | BA-131 | Introduction to Business Computing | 44 | 4 |
| Winter Term |  |  |  |  |  |  |  |
| BA-104 | Business Math | 33 | 3 | Move to Term 1 |  |  |  |
| BA-131 | Introduction to Business Computing | 44 | 4 |  |  |  |  |
| BT-122 | Keyboarding Skillbuilding | 33 | 2 | Move to Term 6 |  |  |  |
| BT-125 | Business Editing II | 33 | 3 | Move to Term 3 |  |  |  |
| BT-160 | Word I | 55 | 3 |  |  |  |  |
|  |  |  |  | $\begin{aligned} & \mathrm{BA}-111 \text { or } \\ & \mathrm{BA}-211 \end{aligned}$ | General Accounting I Financial Accounting I | 44 | 4 |
|  |  |  |  | BT-120 | Personal Keyboarding | 33 | 2 |
|  |  |  |  | BT-121 | Data Entry | 11 | 1 |
|  |  |  |  | BT-124 | Business Editing I | 33 | 3 |
| Spring Term |  |  |  |  |  |  |  |
| $\begin{array}{\|l} \hline \text { BA-111 } \\ \text { or } \\ \text { BA-211 } \\ \hline \end{array}$ | General Accounting I Financial Accounting I | 44 | 4 | Move to Term 2 |  |  |  |
| BT-161 | Word II | 55 | 3 |  |  |  |  |
| BT-172 | Introduction to Microsoft Outlook | 33 | 2 |  |  |  |  |
| CS-135S | Microsoft Excel | 33 | 3 |  |  |  |  |
| -- | Administrative Professional Program elective |  | 3 |  |  |  |  |
|  |  |  |  | BT-125 | Business Editing II | 33 | 3 |
| $2^{\text {nd }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| BA-205 | Business Communications with Technology | 44 | 4 |  |  |  |  |
| BA-226 | Business Law I | 44 | 4 |  |  |  |  |
| BA-285 | Human Relations in Business | 44 | 4 |  |  |  |  |
| BT-262 | Integrated Projects | 66 | 4 |  |  |  |  |
| Winter Term |  |  |  |  |  |  |  |
| BA-206 | Management Fundamentals | 44 | 4 |  |  |  |  |
| BA-218 | Personal Finance | 44 | 4 |  |  |  |  |


| BA-224 | Human Resource Management | 44 | 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -- | PE/Health/Safety/First Aid requirement |  | 1 |  |  |  |  |
| -- | Administrative Professional program elective |  | 3 |  |  |  |  |
| Spring Term |  |  |  |  |  |  |  |
| BA-228 | Computerized Accounting | 33 | 3 |  |  |  |  |
| BT-216 | Office Procedures | 44 | 4 |  |  |  |  |
| BT-271 | Advanced Business Projects | 110 | 4 |  |  |  |  |
| -- | Administrative Professional program elective |  | 3 |  |  |  |  |
|  |  |  |  | BT-122 | Keyboarding Skillbuilding | 33 | 2 |
| Administrative Professional Program Electives |  |  |  |  |  |  |  |
| Any Business Administration (BA) or Business Technology (BT) course not included in the Administrative Professional program. |  |  |  |  |  |  |  |
| TOTAL CURRENTCREDITS: |  |  | 90 | TOTAL PROPOSED CREDITS: |  |  |  |


| College Contact | Bev Forney |  | Telephone No. | 3115 |
| :--- | :--- | :--- | :--- | :--- |
| E-Mail Address |  |  | Fax No. |  |
| Chief Academic Officer or <br> PTE Dean Signature |  | Date | $\mathbf{1 2 / 3 / 1 8}$ |  |



## COMMUNITY COLLEGE ASSOCIATE OF SCIENCE AREA OF EMPHASIS AMENDMENT FORM

This form should be completed electronically and the boxes will expand to accommodate text.

\section*{College: |  | Clackamas Community College |
| :--- | :--- |}

CAREER LEARNING AREA

| CAREER LEARNING AREA |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\sqrt{ }$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { APPROVED } \\ & \text { Program Title } \end{aligned}$ | $\frac{\text { APPROVED }}{$ CIP Code  <br>  (Include  $7^{\text {th }} \text { \& } 8^{\text {th }} \text { digits used }$ <br>  for occurs  <br>  reporting.) } |  |  | APPROVED <br> Recognition Award | Current Credits |
|  | 6-digit CIP | $\frac{7 t}{\frac{7 i}{\text { digit }}}$ | $\frac{\frac{8}{}^{n}}{\text { digit }}$ |  |  |
| AS Area of Emphasis Title: Engineering |  |  |  | Associate of Applied Science Area of Emphasis | 105 |
| Partnering Institution Name George Fox University |  |  |  |  |  |

Last amendment approved on 10.06.17

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |
| :---: | :---: | :---: |
| $\square$ New Agreement | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |
|  |  | Proposed Total Credits: ${ }^{\text {P/ }}$ (105- |
| $\square$ SUSPENSION of Program | Reason for Suspension: |  |
| Suspension Effective Date: |  |  |


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| 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 |  |  |  |  |
| Winter Term |  |  |  |  |  |  |  |
| CH-222 | General Chemistry | 77 | 5 |  |  |  |  |
| ENGR-112 | Engineering Programming | 33 | 3 |  |  |  |  |
| MTH-252 | Calculus II | 55 | 5 |  |  |  |  |
| -- | Engineering Elective |  | 4 |  |  |  |  |
| Spring Term |  |  |  |  |  |  |  |
| ENGR-115 | Engineering Graphics | 33 | 3 |  |  |  |  |
| MTH-243 | Statistics I | 44 | 4 |  |  |  |  |
| MTH-253 | Calculus III | 55 | 5 |  |  |  |  |
| WR-121 | English Composition | 44 | 4 |  |  |  |  |
| Summer Term |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { EC-201 } \\ & \text { Or } \\ & \text { EC-202 } \end{aligned}$ | Principles of Economics: <br> MICRO <br> or <br> Principles of Economics: <br> MACRO | 44 | 4 |  |  |  |  |
| WR-122 | English Composition | 44 | 4 |  |  |  |  |
| Program Requirements - $2^{\text {nd }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| MTH-254 | Vector Calculus | 55 | 5 |  |  |  |  |
| PH-211 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Engineering Elective |  | 8 |  |  |  |  |
| Winter Term |  |  |  |  |  |  |  |
| COMM-111 | Public Speaking | 44 | 4 |  |  |  |  |
| MTH-256 | Differential Equations | 44 | 4 |  |  |  |  |
| PH-212 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Engineering Elective |  | 4 |  | Engineering Elective |  | 3-4 |
| Spring Term |  |  |  |  |  |  |  |
| HPE-295 | Health \& Fitness for Life | 60 | 3 | REMOVE |  |  |  |
| MTH-261 | Linear Algebra | 44 | 4 |  |  |  |  |
| PH-213 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | History elective |  | 4 |  |  |  |  |
|  |  |  |  |  | Intercultural Experience Elective |  | 4 |
| Electives |  |  |  |  |  |  |  |
| Electrical \& Computer Engineering majors: |  |  |  |  |  |  |  |
| ENGR-171 | Digital Logic |  | 4 |  |  |  |  |
| ENGR-271 | Digital Systems |  | 4 |  |  |  |  |
| ENGR-221 | Electrical Circuit Analysis I |  | 4 |  |  |  |  |
| ENGR-222 | Electrical Circuit Analysis II |  | 4 |  |  |  |  |
| Mechanical \& Civil Engineering majors: |  |  |  | Biomedical, Civil, and Mechanical Engineering majors: |  |  |  |
| ENGR-211 | Statics |  | 4 |  |  |  |  |




## COMMUNITY COLLEGE ASSOCIATE OF SCIENCE AREA OF EMPHASIS AMENDMENT FORM

This form should be completed electronically and the boxes will expand to accommodate text.

\section*{College: |  | Clackamas Community College |
| :--- | :--- |}


| CAREER LEARNING AREA |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\sqrt{ }$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { APPROVED } \\ \text { Program Title } \end{gathered}$ | APPROVEDCIP Code(Include end $^{\text {th }}$ \& 8id digits used |  |  | $\frac{\text { APPROVED }}{\text { Recognition Award }}$ | Current Credits |
| AS Area of Emphasis Title: Engineering - Electrical Engineering |  |  |  | Associate of Applied Science Area of Emphasis | 104 |
| Partnering Institution Name Oregon Institute of Technology (Oregon Tech) |  |  |  |  |  |

Last amendment approved on 10/06/17

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |
| :---: | :---: | :---: |
| $\square$ New Agreement | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |
|  |  | Proposed Total Credits: $\begin{array}{l}102- \\ 104\end{array}$ |
| $\square$ SUSPENSION of Program | Reason for Suspension: |  |
| Suspension Effective Date: |  |  |


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| Program Requirements - $1^{\text {st }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| CH-221 | General Chemistry | 77 | 5 |  |  |  |  |
| COMM-111 | Public Speaking | 44 | 4 |  | Move to Term 3 |  |  |
| MTH-251 | Calculus I | 55 | 5 |  |  |  |  |
| WR-121 | English Composition | 44 | 4 |  |  |  |  |
|  |  |  |  | ENGR-111 | Introduction to Engineering | 33 | 3 |
| Winter Term |  |  |  |  |  |  |  |
| CH-222 | General Chemistry | 77 | 5 |  |  |  |  |
| MTH-252 | Calculus II | 55 | 5 |  |  |  |  |
| WR-122 | English Composition | 44 | 4 |  | Move to Term 6 |  |  |
|  |  |  |  | CS-161 | Computer Science I | 44 | 4 |
|  |  |  |  | ENGR-171 | Digital Logic | 66 | 4 |
| Spring Term |  |  |  |  |  |  |  |
| WR-227 | Technical Report Writing | 44 | 4 |  |  |  |  |
| -- | Social Science Elective |  | 4 | REMOVE |  |  |  |
| -- | Track Requirement |  | 8 | REMOVE |  |  |  |
|  |  |  |  | COMM-111 | Public Speaking | 44 | 4 |
|  |  |  |  | ENGR-271 | Digital Systems | 66 | 4 |
|  |  |  |  | MTH-261 | Linear Algebra | 44 | 4 |
| Summer Term |  |  |  |  |  |  |  |
| -- | Track Requirement |  | 12 | REMOVE |  |  |  |
|  |  |  |  | -- | Social Science Elective |  | 3-4 |
| Program Requirements - $\mathbf{2}^{\text {nd }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| ENGR-221 | Electrical Circuit Analysis I | 33 | 4 |  |  |  |  |
| MTH-254 | Vector Calculus | 55 | 5 |  |  |  |  |
| PH-211 | General Physics with Calculus | 70 | 5 |  |  |  |  |
|  |  |  |  | -- | Humanities or Social Science Elective |  | 3-4 |
| Winter Term |  |  |  |  |  |  |  |
| ENGR-222 | Electrical Circuit Analysis II | 33 | 4 |  |  |  |  |
| MTH-256 | Differential Equations | 44 | 4 |  |  |  |  |
| PH-212 | $\begin{aligned} & \text { General Physics with } \\ & \text { Calculus } \end{aligned}$ | 70 | 5 |  |  |  |  |
|  |  |  |  | WR-122 | English Composition | 44 | 4 |
| Spring Term |  |  |  |  |  |  |  |
| PH-213 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Track Requirement |  | 12 | REMOVE |  |  |  |
|  |  |  |  | ENGR-223 | Electrical Circuit Analysis III | 33 | 4 |
|  |  |  |  | MTH-253 | Calculus III | 55 | 5 |
| Track Requirements |  |  |  |  |  |  |  |
| Electrical |  |  |  |  |  |  |  |
| COMM-219 | Small Group Discussion | 44 | 4 | REMOVE |  |  |  |
| CS-161 | Computer Science I | 44 | 4 | Move to Term 2 |  |  |  |
| ENGR-171 | Digital Logic | 66 | 4 | Move to Term 2 |  |  |  |
| ENGR-223 | Electrical Circuit Analysis III | 33 | 4 | Move to Term 7 |  |  |  |
| ENGR-271 | Digital Systems | 66 | 4 | Move to Term 3 |  |  |  |
| MTH-253 | Calculus III | 55 | 5 | Move to Term 7 |  |  |  |
| MTH-261 | Linear Algebra | 44 | 4 | Move to Term 3 |  |  |  |




## COMMUNITY COLLEGE ASSOCIATE OF SCIENCE AREA OF EMPHASIS AMENDMENT FORM

This form should be completed electronically and the boxes will expand to accommodate text.

\section*{College: |  | Clackamas Community College |
| :--- | :--- |}


| CAREER LEARNING AREA |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\sqrt{ }$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { APPROVED } \\ \text { Program Title } \end{gathered}$ | $\frac{\text { APPROVED }}{\text { CI Colde }}$ |  |  | $\frac{\text { APPROVED }}{\text { Recognition Award }}$ | Current Credits |
| AS Area of Emphasis Title: Engineering - Mechanical Engineering |  |  |  | Associate of Applied Science Area of Emphasis | 104 |
| Partnering Institution Name Oregon Institute of Technology (Oregon Tech) |  |  |  |  |  |

Last amendment approved on 10/06/17

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |  |
| :---: | :---: | :---: | :---: |
| $\square$ New Agreement | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |  |
|  |  | Proposed Total Credits: | 103-105 |
| $\square$ SUSPENSION of Program | Reason for Suspension: |  |  |
| Suspension Effective Date: |  |  |  |


| CURRICULUM AMENDMENT[List in a Defined Sequence of Courses Format, e..., Quarter-t-o-quarter mapping.For a New Program, complete the Proposed Curriculum section only.] |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CURRENT CURRICULUM 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20[List only course(s) to be amended] |  |  |  |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| Program Requirements - $1^{\text {st }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| CH-221 | General Chemistry | 77 | 5 |  |  |  |  |
| COMM-111 | Public Speaking | 44 | 4 |  | Move to Term 3 |  |  |
| MTH-251 | Calculus I | 55 | 5 |  |  |  |  |
| WR-121 | English Composition | 44 | 4 |  |  |  |  |
|  |  |  |  | ENGR-111 | Introduction to Engineering | 33 | 3 |
| Winter Term |  |  |  |  |  |  |  |
| CH-222 | General Chemistry | 77 | 5 |  |  |  |  |
| MTH-252 | Calculus II | 55 | 5 |  |  |  |  |
| WR-122 | English Composition | 44 | 4 |  |  |  |  |
|  |  |  |  | ENGR-231 | Properties of Materials | 66 | 4 |
| Spring Term |  |  |  |  |  |  |  |
| WR-227 | Technical Report Writing | 44 | 4 |  |  |  |  |
| -- | Social Science Elective |  | 4 |  | REMOVE |  |  |
| -- | Track Requirement |  | 8 |  | REMOVE |  |  |
|  |  |  |  | COMM-111 | Public Speaking | 44 | 4 |
|  |  |  |  | ENGR-112 | Engineering Programming | 33 | 3 |
|  |  |  |  | MTH-254 | Vector Calculus | 55 | 5 |
| Summer Term |  |  |  |  |  |  |  |
| -- | Track Requirement |  | 12 |  | REMOVE |  |  |
|  |  |  |  | MTH-256 | Differential Equations | 44 | 4 |
|  |  |  |  | -- | Social Science Elective |  | 3-4 |
| Program Requirements - ${ }^{\text {nd }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| ENGR-221 | Electrical Circuit Analysis I | 66 | 4 | REMOVE |  |  |  |
| MTH-254 | Vector Calculus | 55 | 5 | Move to Term 3 |  |  |  |
| PH-211 | General Physics with Calculus | 70 | 5 |  |  |  |  |
|  |  |  |  | ENGR-211 | Statics | 44 | 4 |
|  |  |  |  | MTH-261 | Linear Algebra | 44 | 4 |
| Winter Term |  |  |  |  |  |  |  |
| ENGR-222 | Electrical Circuit Analysis II | 66 | 4 | REMOVE |  |  |  |
| MTH-256 | Differential Equations | 44 | 4 | Move to Term 4 |  |  |  |
| PH-212 | General Physics with Calculus | 70 | 5 |  |  |  |  |
|  |  |  |  | CDT-103 | Computer-Aided Drafting I | 66 | 3 |
|  |  |  |  | ENGR-212 | Dynamics | 44 | 4 |
|  |  |  |  | -- | Humanities Electives |  | 3-4 |
| Spring Term |  |  |  |  |  |  |  |
| PH-213 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Track Requirement |  | 12 | REMOVE |  |  |  |
|  |  |  |  | $\begin{aligned} & \mathrm{EC}-201 \\ & \mathrm{Or} \\ & \mathrm{EC}-202 \end{aligned}$ | Principles of Economics: MICRO <br> Principles of Economics: <br> MACRO | 44 | 4 |
|  |  |  |  | ENGR-201 | Electrical Fundamentals | 33 | 4 |
|  |  |  |  | ENGR-213 | Strength of Materials | 44 | 4 |
| Track Requirements |  |  |  |  |  |  |  |
| Mechanical |  |  |  |  |  |  |  |
| CDT-103 | Computer-Aided Drafting I | 66 | 3 | Move to Term 6 |  |  |  |
| $\begin{aligned} & \mathrm{EC}-201 \\ & \text { Or } \\ & \hline \end{aligned}$ | Principles of Economics: MICRO | 44 | 4 | Move to Term 7 |  |  |  |




## COMMUNITY COLLEGE ASSOCIATE OF SCIENCE AREA OF EMPHASIS AMENDMENT FORM

This form should be completed electronically and the boxes will expand to accommodate text.

\section*{College: |  | Clackamas Community College |
| :--- | :--- |}


| CAREER LEARNING AREA |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\sqrt{ }$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { APPROVED } \\ & \text { Program Title } \end{aligned}$ |  | $\begin{aligned} & \hline \text { VVED } \\ & \hline \text { ode } \\ & \text { intioits, } \\ & \text { reporting } \\ & \begin{array}{l} \text { Z } \\ \text { digit } \end{array} \end{aligned}$ |  | $\frac{\text { APPROVED }}{\text { Recognition Award }}$ | $\begin{array}{\|c\|} \hline \text { Current } \\ \text { Credits } \end{array}$ |
| AS Area of Emphasis Title: Engineering - Renewable Energy |  |  |  | Associate of Applied Science Area of Emphasis | 104 |
| Partnering Institution Name Oregon Institute of Technology (Oregon Tech) |  |  |  |  |  |

Last amendment approved on 10/06/17

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |
| :---: | :---: | :---: |
| $\square$ New Agreement | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |
|  |  | Proposed Total Credits: $\begin{array}{l}99- \\ 104\end{array}$ |
| $\square$ SUSPENSION of Program | Reason for Suspension: |  |
| Suspension Effective Date: |  |  |


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| Program Requirements - $1^{\text {st }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| CH-221 | General Chemistry | 77 | 5 |  |  |  |  |
| COMM-111 | Public Speaking | 44 | 4 | Move to Term 2 |  |  |  |
| MTH-251 | Calculus I | 55 | 5 |  |  |  |  |
| WR-121 | English Composition | 44 | 4 |  |  |  |  |
|  |  |  |  | RET-200 Or <br> ENGR-111 | Renewable Energy Systems Or Introduction to Engineering |  | 3-4 |
| Winter Term |  |  |  |  |  |  |  |
| CH-222 | General Chemistry | 77 | 5 |  |  |  |  |
| MTH-252 | Calculus II | 55 | 5 |  |  |  |  |
| WR-122 | English Composition | 44 | 4 | Move to Term 5 |  |  |  |
|  |  |  |  | COMM-111 | Public Speaking | 44 | 4 |
|  |  |  |  | -- | Humanities Elective |  | 3-4 |
| Spring Term |  |  |  |  |  |  |  |
| WR-227 | Technical Report Writing | 44 | 4 |  |  |  |  |
| -- | Social Science Elective |  | 4 | REMOVE |  |  |  |
| -- | Track Requirement |  | 8 | REMOVE |  |  |  |
|  |  |  |  | $\begin{aligned} & \text { EC-201 } \\ & \text { Or } \\ & \text { EC-202 } \end{aligned}$ | Principles of Economics: <br> MICRO <br> Principles of Economics: <br> MACRO | 44 | 4 |
|  |  |  |  | MTH-261 | Linear Algebra | 44 | 4 |
|  |  |  |  | -- | Humanities Elective |  | 3-4 |
| Summer Term |  |  |  |  |  |  |  |
| -- | Track Requirement |  | 12 |  | REMOVE |  |  |
| Program Requirements - $\mathbf{2}^{\text {nd }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| ENGR-221 | Electrical Circuit Analysis I | 33 | 4 |  |  |  |  |
| MTH-254 | Vector Calculus | 55 | 5 |  |  |  |  |
| PH-211 | General Physics with Calculus | 70 | 5 |  |  |  |  |
|  |  |  |  | ENGR-211 | Statics | 44 | 4 |
| Winter Term |  |  |  |  |  |  |  |
| ENGR-222 | Electrical Circuit Analysis II | 33 | 4 |  |  |  |  |
| MTH-256 | Differential Equations | 44 | 4 |  |  |  |  |
| PH-212 | General Physics with Calculus | 70 | 5 |  |  |  |  |
|  |  |  |  | WR-122 | English Composition | 44 | 4 |
| Spring Term |  |  |  |  |  |  |  |
| PH-213 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Track Requirement |  | 12 | REMOVE |  |  |  |
|  |  |  |  | ENGR-223 | Electrical Circuit Analysis III | 33 | 4 |
|  |  |  |  | -- | Social Science Elective |  | 3-4 |
|  |  |  |  | -- | Social Science Elective |  | 3-4 |
| Track Requirements |  |  |  |  |  |  |  |
| Renewable Energy |  |  |  |  |  |  |  |
| COMM-219 | Small Group Discussion | 44 | 4 | REMOVE |  |  |  |
| $\begin{aligned} & \text { EC-201 } \\ & \text { Or } \\ & \text { EC-202 } \end{aligned}$ | Principles of Economics: MICRO <br> Principles of Economics: MACRO | 44 | 4 | Move to Term 3 |  |  |  |




## COMMUNITY COLLEGE ASSOCIATE OF SCIENCE AREA OF EMPHASIS AMENDMENT FORM

This form should be completed electronically and the boxes will expand to accommodate text.

\section*{College: |  | Clackamas Community College |
| :--- | :--- |}


| CAREER LEARNING AREA |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\sqrt{ }$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| APPROVED Program Title | APPROVED <br> CIP Code <br> (Include $7^{\text {th }} \& 8^{\text {th }}$ digits used <br> for OccuRs <br> reporting.) |  |  | APPROVED <br> Recognition Award | Current Credits |
| AS Area of Emphasis Title: Engineering - Biological Engineering |  |  |  | Associate of Applied Science Area of Emphasis | 107 |
| Partnering Institution Name Oregon State University |  |  |  |  |  |

Last amendment approved on 01.20.17

\left.| TYPE OF PROGRAM AMENDMENT |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| (Check ALL That Apply) |  |  |  |$\right)$


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| Course <br> Number | Course Title | Clock Hours | Credits | Course <br> Number | Course Title | Clock Hours | Credits |
| Program Requirements - $1^{\text {st }}$ 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 - $2^{\text {nd }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| CH-241 | Organic Chemistry I | 77 | 5 |  |  |  |  |
| ENGR-211 | Statics | 44 | 4 |  |  |  |  |
| PH-211 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| Winter Term |  |  |  |  |  |  |  |
| CH-242 | Organic Chemistry II | 77 | 5 |  |  |  |  |
| MTH-253 | Calculus III | 55 | 5 |  |  |  |  |
| PH-212 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| Spring Term |  |  |  |  |  |  |  |
| CH-243 | Organic Chemistry III | 77 | 5 |  |  |  |  |
| ENGR-221 | Electrical Circuit Analysis | 66 | 4 |  | REMOVE |  |  |
| PH-213 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Western Culture elective |  | 4 |  |  |  |  |
|  |  |  |  | ENGR-201 | al Fundamentals | 33 | 4 |
| Social Processes Elective |  |  |  |  |  |  |  |
| ANT-103; <br> EC-201, 202; <br> HST-101, 102, 103; <br> PS-201, 204, 205, 225; <br> PSY-110, 200, 205, 219, 231; <br> 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-122, 208; HST-101, 102, 103, 201, 202, 203; PHL-102, 215; 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; <br> ENG-213, 252; <br> GEO-110, 121; <br> R-101, 102, 103, 210; |  | ANT-231, 232; <br> ENG-213, 252; <br> GEO-110, 121; <br> R-101, 102, 103, 210; |  |  |
| Literature and the Arts Elective |  |  |  |  |
| ```ART-101, 102, 103, 204, 205, 206; DMC-194; ENG-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 204, 205, 213, 250, 251, 252, 253, 254, 255, 260; MUS-105, 205, 206``` |  | ```ART-101, 102, 103, 204, 205, 206; DMC-194; ENG-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 204, 205, 213, 241, 242, 250, 251, 252, 253, 254, 255, 260, 270; MUS-105, 205, 206``` |  |  |
| Difference, Power, and Discrimination Elective |  |  |  |  |
| $\begin{aligned} & \text { HST-201, 202, 203; } \\ & \text { SOC-225 } \end{aligned}$ |  |  |  |  |
| Physical Education Elective |  |  |  |  |
| HPE-295 |  |  |  |  |
| TOTAL CURRENT CREDITS: 107 |  | TOTAL PROPOSED CREDITS: |  |  |
| College Contact |  | Telephone No. |  |  |
| E-Mail Address |  | Fax No. |  |  |
| Chief Academic Officer or CTE Dean Signature | Srud 3un |  | Date | 1/8/19 |



## COMMUNITY COLLEGE ASSOCIATE OF SCIENCE AREA OF EMPHASIS AMENDMENT FORM

This form should be completed electronically and the boxes will expand to accommodate text.

\section*{College: |  | Clackamas Community College |
| :--- | :--- |}


| CAREER LEARNING AREA |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\sqrt{ }$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { APPROVED } \\ & \text { Program Title } \end{aligned}$ | APPROVED <br> CIP Code <br> (Include $7^{\text {th }} \&$ 8 $^{\text {th }}$ digits used <br> for OccuRs <br> reporting.) |  |  | APPROVED <br> Recognition Award | Current Credits |
|  | 6-digit CIP | $\frac{7 t}{\text { digit }}$ | $\frac{\frac{\beta}{}_{\text {digit }}}{\text { dig }}$ |  |  |
| AS Area of Emphasis Title: Engineering - Chemical Engineering |  |  |  | Associate of Applied Science Area of Emphasis | 103 |
| Partnering Institution Name Oregon State University |  |  |  |  |  |

Last amendment approved on 01.20.17

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |
| :---: | :---: | :---: |
| $\square$ New Agreement | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |
|  |  | Proposed Total Credits: |
| $\square$ SUSPENSION of Program | Reason for Suspension: |  |
| Suspension Effective Date: |  |  |


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| Program Requirements - $1^{\text {st }}$ 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 |  |  |  |  |
| WR-227 | Technical Report Writing | 44 | 4 |  |  |  |  |
| Spring Term |  |  |  |  |  |  |  |
| CH-222 | General Chemistry | 77 | 5 |  |  |  |  |
| MTH-254 | Vector Calculus | 55 | 5 |  |  |  |  |
| -- | Social Processes elective |  | 4 |  |  |  |  |
| Summer Term |  |  |  |  |  |  |  |
| CH-223 | General Chemistry | 77 | 5 |  |  |  |  |
| MTH-256 | Differential Equations | 44 | 4 |  |  |  |  |
| Program Requirements - $2^{\text {nd }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| CH-241 | Organic Chemistry I | 77 | 5 |  |  |  |  |
| ENGR-211 | Statics | 44 | 4 |  |  |  |  |
| PH-211 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| Winter Term |  |  |  |  |  |  |  |
| CH-242 | Organic Chemistry II | 77 | 5 |  |  |  |  |
| MTH-253 | Calculus III | 55 | 5 |  |  |  |  |
| PH-212 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| Spring Term |  |  |  |  |  |  |  |
| CH-243 | Organic Chemistry III | 77 | 5 |  |  |  |  |
| ENGR-221 | Electrical Circuit Analysis I | 66 | 4 | REMOVE |  |  |  |
| PH-213 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Western Culture elective |  | 4 |  |  |  |  |
|  |  |  |  | ENGR-201 | undamentals | 33 |  |
| Social Processes Elective |  |  |  |  |  |  |  |
| ANT-103; <br> EC-201, 202; <br> HST-101, 102, 103; <br> PS-201, 204, 205, 225; <br> PSY-110, 200, 205, 219, 231; <br> 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-122, 208; HST-101, 102, 103, 201, 202, 203; PHL-102, 215; R-204;``` |  |  |  | ```ART-204, 205, 206; ENG-107, 108, 109, 201, 202, 204, 205, 250, 251, 253, 254, 255; GEO-122, 208; HST-101, 102, 103, 132, 201, 202, 203; PHL-102, 215; 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; <br> ENG-213, 252; <br> GEO-110, 121 <br> R-101, 102, 103, 21 |  | ANT-231, 232; <br> ENG-213, 252; <br> GEO-110, 121; <br> R-101, 102, 103, 210; |  |  |
| Literature and the Arts Elective |  |  |  |  |
| ```ART-101, 102, 103, 204, 205, 206; DMC-194; ENG-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 204, 205, 213, 250, 251, 252, 253, 254, 255, 260; MUS-105, 205, 206;``` |  | ART-101, 102, 103, 204, 205, 206;DMC-194;ENG-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 204, 205,213, 241, 242, 250, 251, 252, 253, 254, 255, 260, 270;MUS-105, 205, 206; |  |  |
| Difference, Power, and Discrimination Elective |  |  |  |  |
| $\begin{aligned} & \text { HST-201, 202, 203; } \\ & \text { SOC-225; } \end{aligned}$ |  |  |  |  |
| Biological Science Elective |  |  |  |  |
| $\begin{aligned} & \text { BI-101, 102, 103, 204, 211, 212, 213, 234; } \\ & \text { ESR-171, 172, 173; } \\ & \text { Z-201, 202, 203; } \end{aligned}$ |  | $\qquad$ |  |  |
| Physical Education Elective |  |  |  |  |
| HPE-295; |  |  |  |  |
| TOTAL CURRENT CREDITS: 103 |  | TOTAL PROPOSED CREDITS: |  |  |
| College Contact |  | Telephone No. |  |  |
| E-Mail Address |  | Fax No. |  |  |
| Chief Academic Officer or CTE Dean Signature | Sra 马un |  | Date | 1/8/19 |



## COMMUNITY COLLEGE ASSOCIATE OF SCIENCE AREA OF EMPHASIS AMENDMENT FORM

This form should be completed electronically and the boxes will expand to accommodate text.

\section*{College: |  | Clackamas Community College |
| :--- | :--- |}

CAREER LEARNING AREA

| CAREER LEARNING AREA |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\sqrt{ }$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { APPROVED } \\ & \text { Program Title } \end{aligned}$ | APPROVED <br> CIP Code <br> (Include $7^{\text {th }} \&$ 8 $^{\text {th }}$ digits used <br> for OccuRs <br> reporting.) |  |  | APPROVED <br> Recognition Award | Current Credits |
|  | 6-digit CIP | $\frac{t^{t}}{\text { digit }}$ | $\frac{\frac{\beta}{}_{\text {dig }}}{\text { digit }}$ |  |  |
| AS Area of Emphasis Title: Engineering - Civil Engineering |  |  |  | Associate of Applied Science Area of Emphasis | 97 |
| Partnering Institution Name Oregon State University |  |  |  |  |  |

Last amendment approved on 10.06.17

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| $\square$ New Agreement | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |  |
|  |  |  |  |


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| Program Requirements - $1^{\text {st }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| CH-221 | General Chemistry | 77 | 5 |  |  |  |  |
| EC-201 | Principles of Economics: MICRO | 44 | 4 |  | Move to Term 3 |  |  |
| 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-121 | English Composition | 44 | 4 |  | Move to Term 1 |  |  |
|  |  |  |  | CDT-103 | Computer-Aided Drafting I | 66 | 3 |
| Spring Term |  |  |  |  |  |  |  |
| COMM-111 | Public Speaking | 44 | 4 |  |  |  |  |
| ENGR-115 | Engineering Graphics | 33 | 3 |  | REMOVE |  |  |
| MTH-254 | Vector Calculus | 55 | 5 |  |  |  |  |
| WR-227 | Technical Report Writing | 44 | 4 |  |  |  |  |
|  |  |  |  | EC-201 | Principles of Economics: MICRO | 33 | 4 |
| Summer Term |  |  |  |  |  |  |  |
| GIS-201 | Geographic Information Systems | 66 | 3 |  |  |  |  |
| MTH-256 | Differential Equations | 44 | 4 |  |  |  |  |
| Program Requirements - 2 ${ }^{\text {nd }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| ENGR-211 | Statics | 44 | 4 |  |  |  |  |
| PH-211 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Western Culture elective |  | 4 |  |  |  |  |
| Winter Term |  |  |  |  |  |  |  |
| ENGR-212 | Dynamics | 44 | 4 |  |  |  |  |
| MTH-253 | Calculus III | 55 | 5 |  |  |  |  |
| PH-212 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| Spring Term |  |  |  |  |  |  |  |
| ENGR-213 | Strength of Materials | 44 | 4 |  |  |  |  |
| ENGR-221 | Electrical Circuit Analysis I | 66 | 4 |  | REMOVE |  |  |
| PH-213 | General Physics with Calculus | 70 | 5 |  |  |  |  |
|  |  |  |  | ENGR-201 | Electrical Fundamentals | 66 | 4 |
| Western Culture Elective |  |  |  |  |  |  |  |
| ART-204, 205 <br> ENG-107, 1 <br> GEO-122, 20 <br> HST-101, 102 <br> PHL-102, 2 <br> R-204; | $\begin{aligned} & 206 ; \\ & 109,201,202,204,205,25 \\ & 103,201,202,203 ; \end{aligned}$ | $251,253$ | $54,255 ;$ | ART-204, 205 ENG-107, 108 GEO-122, 208 HST-101, 102 PHL-102, 2 R-204; | $\begin{aligned} & 206 ; \\ & 109,201,202,204,205,2 \\ & 103,132,201,202,203 ; \end{aligned}$ | $251,25$ | $254,255 ;$ |
| 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 |  |  |  |  |  |  |  |



## 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 |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\sqrt{ }$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { APPROVED } \\ & \text { Program Title } \end{aligned}$ | $\frac{\text { APPROVED }}{$ CIP Code  <br>  (Include  $7^{\text {th }} \text { \& } 8^{\text {th }} \text { digits used }$ <br>  for occurs  <br>  reporting.) } |  |  | APPROVED <br> Recognition Award | Current Credits |
|  | 6-digit CIP | $\frac{7 t}{\frac{7 i q i t}{\text { dit }}}$ | $\frac{\frac{8}{}^{\prime \prime}}{\text { digit }}$ |  |  |
| AS Area of Emphasis Title: Engineering - Construction Engineering Management |  |  |  | Associate of Applied Science Area of Emphasis | 92 |
| Partnering Institution Name Oregon State University |  |  |  |  |  |


| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |
| :---: | :---: | :---: |
| $\square$ New Agreement | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |
|  |  | Proposed Total Credits: |
| $\square$ SUSPENSION of Program | Reason for Suspension: |  |
| Suspension Effective Date: |  |  |


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| Course <br> Number | Course Title | Clock Hours | Credits | Course Number | Course Title | Clock Hours | Credits |
| Program Requirements - $1^{\text {st }}$ 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 |  |  |  |  |
| EC-201 | Principles of Economics: MICRO | 44 | 4 |  | Move to Term 3 |  |  |
| ENGR-112 | Engineering Programming | 33 | 3 |  |  |  |  |
| MTH-252 | Calculus II | 55 | 5 |  |  |  |  |
|  |  |  |  | CDT-103 | Computer-Aided Drafting I | 66 | 3 |
| Spring Term |  |  |  |  |  |  |  |
| EC-202 | Principles of Economics: MACRO | 44 | 4 |  |  |  |  |
| ENGR-115 | Engineering Graphics | 33 | 3 |  | REMOVE |  |  |
| - - | Biological Science elective |  | 4 |  |  |  |  |
| - - | Literature and the Arts elective |  | 4 |  |  |  |  |
|  |  |  |  | EC-201 | Principles of Economics: MICRO | 44 | 4 |
| Program Requirements - $2^{\text {nd }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| ENGR-211 | Statics | 44 | 4 |  |  |  |  |
| HPE-295 | Health \& Fitness for Life | 60 | 3 |  |  |  |  |
| PH-211 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| Winter Term |  |  |  |  |  |  |  |
| BA-215 | Fundamentals of Accounting (online through OSU) |  | 4 |  |  |  |  |
| PH-212 | General Physics with Calculus | 70 | 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 | Engineering Economy (online through OSU) |  | 3 |  |  |  |  |
| WR-227 | Technical Report Writing | 44 | 4 |  |  |  |  |
| Cultural Diversity Elective |  |  |  |  |  |  |  |
| ANT-231, 2 <br> ENG-213, <br> GEO-110, <br> R-101, 102 | 3, 210; |  |  | $\begin{aligned} & \text { ANT-231, } 2 \\ & \text { ENG-213, } \\ & \text { GEO-410, } \\ & \text { R-101, 102, } \end{aligned}$ | 33, 210; |  |  |
| Literature and the Arts Elective |  |  |  |  |  |  |  |
| ART-101, <br> DMC-194; <br> ENG-104, <br> 213, 250, 2 <br> MUS-105, | $\begin{aligned} & 103,204,205,206 ; \\ & 106,107,108,109,194,195 \\ & 252,253,254,255,260 ; \\ & 206 ; \end{aligned}$ | 201, 202, | 204, 205, | ART-101, <br> DMC-194; <br> ENG-104, <br> 213, 241, 2 <br> MUS-105, | $\begin{aligned} & 103,204,205,206 ; \\ & , 106,107,108,109,194,1 \\ & 250,251,252,253,254,25 \\ & 206 ; \end{aligned}$ | $201,202$ $60,270$ | $04,205$ |
| Biological Science Elective |  |  |  |  |  |  |  |
| Bl-101, 102, 103, 204, 211, 212, 213, 234; |  |  |  | BI-101, 102, 103, 175, 176, 177, 204, 211, 212, 213, 234; |  |  |  |


| ESR-171, 172, 173; <br> Z-201, 202, 203; <br> 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. |  | ESR-171, 172, 173; <br> Z-201, 202, 203; <br> 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 |  |  |  |  |
| $\begin{aligned} & \text { HST-201, 202, 203; } \\ & \text { SOC-225; } \end{aligned}$ |  |  |  |  |
| TOTAL CURRENT CREDITS: 92 |  | TOTAL PROPOSED CREDITS: |  |  |
| College Contact |  | Telephone No. |  |  |
| E-Mail Address |  | Fax No. |  |  |
| Chief Academic | C | $\sim$ n | Date | 1/8/19 |



## COMMUNITY COLLEGE ASSOCIATE OF SCIENCE AREA OF EMPHASIS AMENDMENT FORM

This form should be completed electronically and the boxes will expand to accommodate text.

\section*{College: |  | Clackamas Community College |
| :--- | :--- |}


| CAREER LEARNING AREA |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\sqrt{ }$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { APPROVED } \\ & \text { Program Title } \end{aligned}$ | $\frac{\text { APPROVED }}{$ CIP Code  <br>  (Include  $7^{\text {th }} \& \text { \& }^{\mathrm{h}} \text { digits used }$ <br>  for Occurs  <br>  reporting.) } |  |  | APPROVED <br> Recognition Award | Current Credits |
|  | 6-digit CIP | $\frac{\pi r}{\text { digit }}$ | $\frac{\frac{8}{}^{\prime \prime}}{d_{\text {ligit }}}$ |  |  |
| AS Area of Emphasis Title: Engineering - Ecological Engineering |  |  |  | Associate of Applied Science Area of Emphasis | 103 |
| Partnering Institution Name Oregon State University |  |  |  |  |  |


| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |  |
| :---: | :---: | :---: | :---: |
| $\square$ New Agreement | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |  |
|  |  | Proposed Total Credits: | $\begin{aligned} & 102- \\ & 103 \end{aligned}$ |
| $\square$ SUSPENSION of Program | Reason for Suspension: |  |  |
| Suspension Effective Date: |  |  |  |


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| Program Requirements - $1^{\text {st }}$ 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 |  |  |  |  |
| -- | Social Processes Elective |  | 4 |  | REMOVE |  |  |
|  |  |  |  |  | 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 - $\mathbf{2}^{\text {nd }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| BI-211 | General Biology for Science Majors (Cellular Biology) | 77 | 5 |  |  |  |  |
| ENGR-211 | Statics | 44 | 4 |  |  |  |  |
| PH-211 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| Winter Term |  |  |  |  |  |  |  |
| BI-212 | General Biology for Science Majors (Animal Biology) | 77 | 5 |  |  |  |  |
| MTH-253 | Calculus III | 55 | 5 |  |  |  |  |
| PH-212 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| Spring Term |  |  |  |  |  |  |  |
| BI-213 | General Biology for Science Majors (Plant Biology \& Ecology) | 77 | 5 |  |  |  |  |
| ENGR-213 | Strength of Materials | 44 | 4 |  |  |  |  |
| PH-213 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Western Culture elective |  | 4 |  |  |  |  |
| Social Processes Elective |  |  |  |  |  |  |  |
| ANT-103; <br> EC-201, 202; <br> HST-101, 102, 103; <br> PS-201, 204, 205, 225; <br> REMOVE <br> PSY-110, 200, 205, 219, 231; <br> 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-122, 208; HST-101, 102, 103, 201, 202, 203; PHL-102, 215; 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, 121;R-101, 102, 103, 210; |  | ANT-231, 232; ENG-213, 252; GEO-110, 121; R-101, 102, 103, 210; |  |  |
| Literature and the Arts Elective |  |  |  |  |
| ```ART-101, 102, 103, 204, 205, 206; DMC-194; ENG-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 204, 205, 213, 250, 251, 252, 253, 254, 255, 260; MUS-105, 205, 206;``` |  | ART-101, 102, 103, 204, 205, DMC-194; <br> ENG-104, 105, 106, 107, 108, <br> 213, 241, 242, 250, 251, 252, 2 <br> MUS-105, 205, 206; | 94, 195 $54,255,$ | $\begin{aligned} & \text { 201, 202, 204, 205, } \\ & 60,270 ; \end{aligned}$ |
| Difference, Power, and Discrimination Elective |  |  |  |  |
| HST-201, 202, 203; SOC-225; |  |  |  |  |
| Biological Science Elective |  |  |  |  |
| BI-101, 102, 103, 204, 211, 212, 213, 234; <br> ESR-171, 172, 173; <br> Z-201, 202, 203; |  | REMOVE |  |  |
| Physical Education Elective |  |  |  |  |
| HPE-295; |  |  |  |  |
| TOTAL CURRENT CREDITS: ${ }^{\text {a }}$ |  | TOTAL PROPOSED CRED |  | 102-103 |
| College Contact |  | Telephone No. |  |  |
| E-Mail Address |  | Fax No. |  |  |
| Chief Academic Officer or CTE Dean Signature |  | 2n 5 | Date | 1/8/19 |



## COMMUNITY COLLEGE ASSOCIATE OF SCIENCE AREA OF EMPHASIS AMENDMENT FORM

This form should be completed electronically and the boxes will expand to accommodate text.

\section*{College: |  | Clackamas Community College |
| :--- | :--- |}


| CAREER LEARNING AREA |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\sqrt{ }$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { APPROVED } \\ & \text { Program Title } \end{aligned}$ | APPROVED <br> CIP Code <br> (Include $7^{\text {th }} \&$ 8 $^{\text {th }}$ digits used <br> for OccuRs <br> reporting.) |  |  | APPROVED <br> Recognition Award | Current Credits |
|  | 6-digit CIP | $\frac{t^{t}}{\text { digit }}$ | $\frac{\frac{\beta}{}_{\text {dig }}}{\text { digit }}$ |  |  |
| AS Area of Emphasis Title: Engineering - Electrical Engineering |  |  |  | Associate of Applied Science Area of Emphasis | 102 |
| Partnering Institution Name Oregon State University |  |  |  |  |  |

Last amendment approved on 01.20.17

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| $\square$ New Agreement | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |  |
|  |  |  |  |


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| Program Requirements - First Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| CS-161 | Computer Science I | 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 |  |  |  |  |
| CS-162 | Computer Science II | 44 | 4 |  |  |  |  |
| ENGR-112 | Engineering Programming | 33 | 3 |  |  |  |  |
| MTH-252 | Calculus II | 55 | 5 |  |  |  |  |
| Spring Term |  |  |  |  |  |  |  |
| CS-260 | Data Structures | 44 | 4 |  |  |  |  |
| MTH-253 | Calculus III | 55 | 5 |  |  |  |  |
| WR-227 | Technical Report Writing | 44 | 4 |  |  |  |  |
| -- | Social Processes elective |  | 4 |  |  |  |  |
| Summer Term |  |  |  |  |  |  |  |
| COMM-111 | Public Speaking | 44 | 4 |  |  |  |  |
| MTH-256 | Differential Equations | 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 | 70 | 5 |  |  |  |  |
| Winter Term |  |  |  |  |  |  |  |
| CS-250 | Discrete Structures I | 44 | 4 | REMOVE |  |  |  |
| ENGR-171 | Digital Logic | 66 | 4 |  |  |  |  |
| ENGR-222 | Electrical Circuit Analysis II | 33 | 4 |  |  |  |  |
| PH-212 | General Physics with Calculus | 70 | 5 |  |  |  |  |
|  |  |  |  | MTH-231 | Elements of Discrete Mathematics | 44 | 4 |
| Spring Term |  |  |  |  |  |  |  |
| ENGR-223 | Electrical Circuit Analysis III | 33 | 4 |  |  |  |  |
| PH-213 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Western Culture elective |  | 4 |  |  |  |  |
| Social Processes Elective |  |  |  |  |  |  |  |
| ANT-103; <br> EC-201, 202; <br> HST-101, 102, 103; <br> PS-201, 204, 205, 225; <br> PSY-110, 200, 205, 219, 231; <br> 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-122, 208; HST-101, 102, 103, 201, 202, 203; PHL-102, 215; R-204;``` |  |  |  | ```ART-204, 205, 206; ENG-107, 108, 109, 201, 202, 204, 205, 250, 251, 253, 254, 255; GEO-122, 208; HST-101, 102, 103, 132, 201, 202, 203; PHL-102, 215; 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; <br> ENG-213, 252; <br> GEO-110, 121; <br> R-101, 102, 103, 210; |  | ANT-231, 232; ENG-213, 252; GEO-110, 121; R-101, 102, 103, 210; |  |  |
| Literature and the Arts Elective |  |  |  |  |
| ```ART-101, 102, 103, 204, 205, 206; DMC-194; ENG-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 204, 205, 213, 250, 251, 252, 253, 254, 255, 260; MUS-105, 205, 206;``` |  |  |  |  |
| Difference, Power, and Discrimination Elective |  |  |  |  |
| $\begin{aligned} & \text { HST-201, 202, 203; } \\ & \text { SOC-225; } \\ & \hline \end{aligned}$ |  |  |  |  |
| Biological Science Elective |  |  |  |  |
| $\begin{aligned} & \text { BI-101, 102, 103, 204, 211, 212, 213, 234; } \\ & \text { ESR-171, 172, 173; } \\ & \text { Z-201, 202, 203; } \end{aligned}$ |  | $\begin{aligned} & \text { BI-101, 102, 103, 175, 176, } 177 \\ & \text { ESR-171, 172, 173; } \\ & \text { Z-201, 202, 203; } \end{aligned}$ | $, 211,2$ | 2, 213, 234; |
| Physical Education Elective |  |  |  |  |
| HPE-295; |  |  |  |  |
| TOTAL CURRENT CREDITS: 102 |  | TOTAL PROPOSED CRED |  |  |
| College Contact |  | Telephone No. |  |  |
| E-Mail Address |  | Fax No. |  |  |
| Chief Academic Officer or CTE Dean Signature | - | rat Jun | Date | 1/8/19 |



## COMMUNITY COLLEGE ASSOCIATE OF SCIENCE AREA OF EMPHASIS AMENDMENT FORM

This form should be completed electronically and the boxes will expand to accommodate text.

\section*{College: |  | Clackamas Community College | Date |
| :--- | :--- | :--- |}


| CAREER LEARNING AREA |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\sqrt{ }$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { APPROVED } \\ & \text { Program Title } \end{aligned}$ | $\frac{\text { APPROVED }}{\text { CIP Code }}$ |  |  | APPROVEDRecognition Award | Current Credits |
|  | 6-digit CIP | $\frac{\pi t}{\text { digit }}$ | $\frac{8^{\text {digit }}}{\text { digit }}$ |  |  |
| AS Area of Emphasis Title: Engineering - Energy Systems Engineering |  |  |  | Associate of Applied Science Area of Emphasis | 98-99 |
| Partnering Institution Name Oregon State University |  |  |  |  |  |


| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |
| :---: | :---: | :---: |
| $\square$ New Agreement | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |
|  |  | Proposed Total Credits: |
| $\square$ SUSPENSION of Program | Reason for Suspension: |  |
| Suspension Effective Date: |  |  |


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| 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-253 | Calculus III | 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 I | 44 | 4 |  |  |  |  |
| ENGR-211 | Statics | 44 | 4 |  |  |  |  |
| ENGR-221 | Electrical Circuit Analysis I | 33 | 4 |  |  |  |  |
| PH-211 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| Winter Term |  |  |  |  |  |  |  |
| ENGR-212 | Dynamics | 44 | 4 |  |  |  |  |
| ENGR-222 | Electrical Circuit Analysis II | 33 | 4 |  |  |  |  |
| PH-212 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| Spring Term |  |  |  |  |  |  |  |
| MTH-254 | Vector Calculus | 55 | 5 |  |  |  |  |
| PH-213 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Engineering 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-122, 208; HST-101, 102, 103, 201, 202, 203; PHL-102, 215; R-204;``` |  |  |  | ```ART-204, 205, 206; ENG-107, 108, 109, 201, 202, 204, 205, 250, 251, 253, 254, 255; GEO-122, 208; HST-101, 102, 103, 132, 201, 202, 203; PHL-102, 215; 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, 121;R-101, 102, 103, 210; |  |  |  | ANT-231, 232;ENG-213, 252;GEO-110, 121;R-101, 102, 103, 210; |  |  |  |




## COMMUNITY COLLEGE ASSOCIATE OF SCIENCE AREA OF EMPHASIS AMENDMENT FORM

This form should be completed electronically and the boxes will expand to accommodate text.

\section*{College: |  | Clackamas Community College |
| :--- | :--- |}


| CAREER LEARNING AREA |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\sqrt{ }$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { APPROVED } \\ & \text { Program Title } \end{aligned}$ | $\frac{\text { APPROVED }}{\text { CIP Code }}$ |  |  | APPROVED Recognition Award | Current Credits |
| AS Area of Emphasis Title: Engineering - Environmental Engineering |  |  |  | Associate of Applied Science Area of Emphasis | 110 |
| Partnering Institution Name Oregon State University |  |  |  |  |  |

Last amendment approved on 01.20.17

\left.| TYPE OF PROGRAM AMENDMENT |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| (Check ALL That Apply) |  |  |  |$\right]$


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| 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 |  |  |  |  |
| Winter Term |  |  |  |  |  |  |  |
| CH-221 | General Chemistry | 77 | 5 |  |  |  |  |
| ENGR-112 | Engineering Programming | 33 | 3 |  |  |  |  |
| MTH-252 | Calculus II | 55 | 5 |  |  |  |  |
| WR-227 | Technical Report Writing | 44 | 4 |  |  |  |  |
| Spring Term |  |  |  |  |  |  |  |
| CH-222 | General Chemistry | 77 | 5 |  |  |  |  |
| ENGR-115 | Engineering Graphics | 33 | 3 |  |  |  |  |
| MTH-254 | Vector Calculus | 55 | 5 |  |  |  |  |
| -- | Western Culture elective |  | 4 |  |  |  |  |
| Summer Term |  |  |  |  |  |  |  |
| CH-223 | General Chemistry | 77 | 5 |  |  |  |  |
| 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 |  |  |  |  |
| ENGR-211 | Statics | 44 | 4 |  |  |  |  |
| PH-211 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| Winter Term |  |  |  |  |  |  |  |
| CH-242 | Organic Chemistry II | 77 | 5 |  |  |  |  |
| ENGR-212 | Dynamics | 44 | 4 |  |  |  |  |
| PH-212 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| Spring Term |  |  |  |  |  |  |  |
| CH-243 | Organic Chemistry III | 77 | 5 |  |  |  |  |
| ENGR-213 | Strength of Materials | 44 | 4 |  |  |  |  |
| MTH-253 | Calculus III | 55 | 5 |  |  |  |  |
| PH-213 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| Social Processes Elective |  |  |  |  |  |  |  |
| ANT-103; <br> EC-201, 202; <br> HST-101, 102, 103; <br> PS-201, 204, 205, 225; <br> PSY-110, 200, 205, 219, 231; <br> 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-122, 208; HST-101, 102, 103, 201, 202, 203; PHL-102, 215; R-204;``` |  |  |  | ```ART-204, 205, 206; ENG-107, 108, 109, 201, 202, 204, 205, 250, 251, 253, 254, 255; GEO-122, 208; HST-101, 102, 103, 132, 201, 202, 203; PHL-102, 215; 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; <br> ENG-213, 252; <br> GEO-110, 121 <br> R-101, 102, 103, 210; |  | ANT-231, 232; <br> ENG-213, 252; <br> GEO-110, 121 <br> R-101, 102, 103, 210; |  |  |
| Literature and the Arts Elective |  |  |  |  |
| ```ART-101, 102, 103, 204, 205, 206; DMC-194; ENG-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 204, 205, 213, 250, 251, 252, 253, 254, 255, 260; MUS-105, 205, 206;``` |  |  |  |  |
| Difference, Power, and Discrimination Elective |  |  |  |  |
| $\begin{aligned} & \text { HST-201, 202, 203; } \\ & \text { SOC-225; } \end{aligned}$ |  |  |  |  |
| Biological Science Elective |  |  |  |  |
| $\begin{aligned} & \text { BI-101, 102, 103, 204, 211, 212, 213, 234; } \\ & \text { ESR-171, 172, 173; } \\ & \text { Z-201, 202, 203; } \end{aligned}$ |  | $\begin{aligned} & \text { BI-101, 102, 103, 175, 176, } 177 \\ & \text { ESR-171, 172, 173; } \\ & \text { Z-201, 202, 203; } \end{aligned}$ | $211,2$ | , 213, 234; |
| Physical Education Elective |  |  |  |  |
| HPE-295; |  |  |  |  |
| TOTAL CURRENT CREDITS: 110 |  | TOTAL PROPOSED CRED |  |  |
| College Contact |  | Telephone No. |  |  |
| E-Mail Address |  | Fax No. |  |  |
| Chief Academic Officer or CTE Dean Signature |  | r~ | Date | 1/8/19 |



## COMMUNITY COLLEGE ASSOCIATE OF SCIENCE AREA OF EMPHASIS AMENDMENT FORM

This form should be completed electronically and the boxes will expand to accommodate text.

\section*{College: |  | Clackamas Community College | Date |
| :--- | :--- | :--- |}


| CAREER LEARNING AREA |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\checkmark$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { APPROVED } \\ & \text { Program Title } \end{aligned}$ | $\frac{\text { APPROVED }}{\text { CIP Code }}$ |  |  | APPROVED <br> Recognition Award | Current Credits |
|  | 6-digit CIP | $\frac{7 t^{\text {digit }}}{\text { digit }}$ | $\frac{8^{\text {dig }}}{\text { digit }}$ |  |  |
| AS Area of Emphasis Title: Engineering Industrial/Manufacturing |  |  |  | Associate of Applied Science Area of Emphasis | 94 |
| Partnering Institution Name Oregon State University |  |  |  |  |  |


| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |
| :---: | :---: | :---: |
| $\square$ New Agreement | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |
|  |  | Proposed Total Credits: |
| $\square$ SUSPENSION of Program | Reason for Suspension: |  |
| Suspension Effective Date: |  |  |


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| 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 | 70 | 5 |  |  |  |  |
| -- | Western Culture elective |  | 4 |  |  |  |  |
| Winter Term |  |  |  |  |  |  |  |
| ENGR-212 | Dynamics | 44 | 4 |  |  |  |  |
| MTH-253 | Calculus III | 55 | 5 |  |  |  |  |
| PH-212 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| Spring Term |  |  |  |  |  |  |  |
| ENGR-213 | Strength of Materials | 44 | 4 |  |  |  |  |
| ENGR-221 | Electrical Circuit Analysis I | 66 | 4 |  | REMOVE |  |  |
| PH-213 | General Physics with Calculus | 70 | 5 |  |  |  |  |
|  |  |  |  | ENGR-201 | undamentals | 33 |  |
| Social Processes Elective |  |  |  |  |  |  |  |
| ANT-103; <br> EC-201, 202; <br> HST-101, 102, 103; <br> PS-201, 204, 205, 225; <br> PSY-110, 200, 205, 219, 231; <br> 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-122, 208, 230; HST-101, 102, 103, 201, 202, 203; PHL-102, 215; R-204;``` |  |  |  | ```ART-204, 205, 206; ENG-107, 108, 109, 201, 202, 204, 205, 250, 251, 253, 254, 255; GEO-122, 208, 230; HST-101, 102, 103, 132, 201, 202, 203; PHL-102, 215; 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 |  |  |  |  |  |  |  |


| $\begin{aligned} & \text { ANT-231, 232; } \\ & \text { ENG-213, 252; } \\ & \text { GEO-110, 121; } \\ & \text { R-101, 102, 103, } 210 \\ & \hline \end{aligned}$ |  | ANT-231, 232;ENG-213, 252;GEO-110, 121;R-101, 102, 103, 210; |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Literature and the Arts Elective |  |  |  |  |
| ART-101, 102, 103, 204, 205, 206; <br> DMC-194; <br> ENG-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 204, 205, <br> 213, 250, 251, 252, 253, 254, 255, 260; <br> MUS-105, 205, 206; |  | ```ART-101, 102, 103, 204, 205, 206; DMC-194; ENG-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 204, 205, 213, 241, 242, 250, 251, 252, 253, 254, 255, 260, 270; MUS-105, 205, 206;``` |  |  |
| Difference, Power, and Discrimination Elective |  |  |  |  |
| HST-201, 202, 203; SOC-225; |  |  |  |  |
| Biological Science Elective |  |  |  |  |
| BI-101, 102, 103, 204, 211, 212, 213, 234; <br> ESR-171, 172, 173; <br> Z-201, 202, 203; |  | BI-101, 102, 103, 175, 176, 177, 204, 211, 212, 213, 234;ESR-171, 172, 173;Z-201, 202, 203; |  |  |
| Physical Education Elective |  |  |  |  |
| HPE-295; |  |  |  |  |
| TOTAL CURRENT CREDITS: 94 |  | TOTAL PROPOSED CREDITS: |  |  |
| College Contact |  | Telephone No. |  |  |
| E-Mail Address |  | Fax No. |  |  |
| Chief Academic Officer or CTE Dean Signature |  | Ird Fan | Date | 1/8/19 |



## COMMUNITY COLLEGE ASSOCIATE OF SCIENCE AREA OF EMPHASIS AMENDMENT FORM

This form should be completed electronically and the boxes will expand to accommodate text.

\section*{College: |  | Clackamas Community College |
| :--- | :--- |}


| CAREER LEARNING AREA |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\checkmark$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| APPROVED Program Title | APPROVED <br> CIP Code <br> (Include $7^{\text {th }} \& 8^{\text {th }}$ digits used <br> for OccuRs <br> reporting.) |  |  | APPROVED <br> Recognition Award | Current Credits |
| AS Area of Emphasis Title: Engineering - Mechanical Engineering |  |  |  | Associate of Applied Science Area of Emphasis | 98 |
| Partnering Institution Name Oregon State University |  |  |  |  |  |


| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |
| :---: | :---: | :---: |
| $\square$ New Agreement | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |
|  |  | Proposed Total Credits: |
| $\square$ SUSPENSION of Program | Reason for Suspension: |  |
| Suspension Effective Date: |  |  |


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| 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 |  |  |  |  |
| $\begin{aligned} & \text { EC-201 } \\ & \text { Or } \\ & \text { EC-202 } \end{aligned}$ | Principles of Economics: <br> MICRO <br> or <br> Principles of Economics: <br> 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 | 70 | 5 |  |  |  |  |
| -- | Western Culture elective |  | 4 |  |  |  |  |
| Winter Term |  |  |  |  |  |  |  |
| ENGR-212 | Dynamics | 44 | 4 |  |  |  |  |
| ENGR-222 | Electrical Circuit Analysis II | 33 | 4 |  |  |  |  |
| PH-212 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| Spring Term |  |  |  |  |  |  |  |
| ENGR-213 | Strength of Materials | 44 | 4 |  |  |  |  |
| MTH-253 | Calculus III | 55 | 5 |  |  |  |  |
| PH-213 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| Western Culture Elective |  |  |  |  |  |  |  |
| ART-204, 20 ENG-107, 108 GEO-122, 208 HST-101, 102 PHL-102, 21 R-204; | $\begin{aligned} & 206 ; \\ & 109,201,202,204,205,250, \\ & 103,201,202,203 ; \end{aligned}$ | $251,253$ | 54, 255; | $\begin{aligned} & \text { RT-204, } \\ & \text { NG-107, } \\ & \text { EO-122, } \\ & \text { ST-101, } \\ & \text { HL-102, } \\ & -204 ; \end{aligned}$ | $202,20$ $201,20$ | $51,25!$ | 54, 255; |
| Optional: While not required for the A.S. degree, students may complete additional coursework at CCC that will meet requirements for the Bachelors 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, 121;R-101, 102, 103, 210; |  |  |  | ANT-231, 232; <br> ENG-213, 252; <br> GEO-110, 121; <br> R-101, 102, 103, 210; |  |  |  |


| Literature and the Arts Elective |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| ```ART-101, 102, 103, 204, 205, 206; DMC-194; ENG-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 204, 205, 213, 250, 251, 252, 253, 254, 255, 260; MUS-105, 205, 206;``` |  |  |  |  |
| Difference, Power, and Discrimination Elective |  |  |  |  |
| HST-201, 202, 203; SOC-225; |  |  |  |  |
| Biological Science Elective |  |  |  |  |
| $\begin{aligned} & \text { BI-101, 102, 103, 204, 211, 212, 213, 234; } \\ & \text { ESR-171, 172, 173; } \\ & \text { Z-201, 202, 203; } \end{aligned}$ |  | $\begin{aligned} & \text { BI-101, 102, 103, 175, 176, 177, 204, 211, 212, 213, 234; } \\ & \text { ESR-171, 172, 173; } \\ & \text { Z-201, 202, 203; } \end{aligned}$ |  |  |
| Physical Education Elective |  |  |  |  |
| HPE-295; |  |  |  |  |
| TOTAL CURRENT CREDITS: 98 |  | TOTAL PROPOSED CREDITS: |  |  |
| College Contact |  | Telephone No. |  |  |
| E-Mail Address |  | Fax No. |  |  |
| Chief Academic Officer or CTE Dean Signature | Sra Jun |  | Date | 1/8/19 |



## COMMUNITY COLLEGE ASSOCIATE OF SCIENCE AREA OF EMPHASIS AMENDMENT FORM

This form should be completed electronically and the boxes will expand to accommodate text.

\section*{College: |  | Clackamas Community College |
| :--- | :--- |}

CAREER LEARNING AREA

| CAREER LEARNING AREA |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\sqrt{ }$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { APPROVED } \\ & \text { Program Title } \end{aligned}$ | APPROVED <br> CIP Code <br> (Include $7^{\text {th }} \& 8^{\text {th }}$ digits used <br> for OccuRs <br> reporting.) |  |  | APPROVED <br> Recognition Award | Current Credits |
|  | 6-digit CIP | $\frac{7^{t}}{\text { digit }}$ | $\frac{\frac{8}{}^{\prime \prime}}{\text { digit }}$ |  |  |
| AS Area of Emphasis Title: Engineering - Civil/Environmental |  |  |  | Associate of Applied Science Area of Emphasis | 96-106 |
| Partnering Institution Name Portland State University |  |  |  |  |  |

Last amendment approved on 06.02.17

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |
| :---: | :---: | :---: |
| $\square$ New Agreement | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |
|  |  | Proposed Total Credits: $\begin{array}{l}96- \\ 100\end{array}$ |
| $\square$ SUSPENSION of Program | Reason for Suspension: |  |
| Suspension Effective Date: |  |  |


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| 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 |  |  |  |  |  |  |  |
| ENGR-112 | Engineering Programming | 33 | 3 |  |  |  |  |
| MTH-252 | Calculus II | 55 | 5 |  |  |  |  |
| $\begin{aligned} & \text { WR-122 or } \\ & \text { WR-227* } \end{aligned}$ | English Composition Technical Report Writing | 44 | 4 |  | REMOVE WR-12 Move WR-227 to Te |  |  |
| -- | Track Requirement |  | 3-4 |  | REMOVE |  |  |
|  |  |  |  | BI-204* | Elementary Microbiology | 66 | 4 |
|  |  |  |  | CH-222 | General Chemistry | 77 | 5 |
| Spring Term |  |  |  |  |  |  |  |
| MTH-261 | Linear Algebra | 44 | 4 |  | Move to Term 6 |  |  |
| -- | Arts \& Letters elective |  | 4 |  |  |  |  |
| -- | Track Requirement |  | 3-5 |  | REMOVE |  |  |
| -- | Track Requirement |  | 3-5 |  |  |  |  |
|  |  |  |  | COMM-111 | Public Speaking | 44 | 4 |
|  |  |  |  | MTH-254 | Vector Calculus | 55 | 5 |
|  |  |  |  | WR-227 | Technical Report Writing | 44 | 4 |
| Program Requirements - Second Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| PH-211 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Track Requirement |  | 3-5 | REMOVE |  |  |  |
| -- | Track Requirement |  | 3-5 |  |  |  |  |
| -- | Track Requirement |  | 3-5 |  |  |  |  |
|  |  |  |  | ENGR-211 | Statics | 44 | 4 |
|  |  |  |  | GIS-201 | Geographic Information Systems | 66 | 3 |
|  |  |  |  | -- | Social Science elective |  | 4 |
| Winter Term |  |  |  |  |  |  |  |
| COMM-111 | Public Speaking | 44 | 4 | Move to Term 3 |  |  |  |
| MTH-256 | Differential Equations | 44 | 4 |  |  |  |  |
| PH-212 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Track Requirement |  | 3-5 | REMOVE |  |  |  |
|  |  |  |  | CDT-103 | Computer-Aided Drafting I | 66 | 3 |
|  |  |  |  | ENGR-212 | Dynamics | 44 | 4 |
| Spring Term |  |  |  |  |  |  |  |
| PH-213 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Arts \& Letters or Social Science elective |  | 4 |  |  |  |  |
| -- | Social Science elective |  | 4 | Move to Term 4 |  |  |  |
| -- | Track Requirement |  | 3-5 | REMOVE |  |  |  |
| -- | Track Requirement (if necessary) |  | 3-5 |  |  |  |  |
|  |  |  |  | ENGR-213 | Strength of Materials | 44 | 4 |
|  |  |  |  | MTH-261 | Linear Algebra | 44 | 4 |
| *Note: Environmental Track Only |  |  |  |  |  |  |  |
| Arts \& Letters |  |  |  |  |  |  |  |




## COMMUNITY COLLEGE ASSOCIATE OF SCIENCE AREA OF EMPHASIS AMENDMENT FORM

This form should be completed electronically and the boxes will expand to accommodate text.

\section*{College: |  | Clackamas Community College |
| :--- | :--- |}


| CAREER LEARNING AREA |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\sqrt{ }$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { APPROVED } \\ & \text { Program Title } \end{aligned}$ | APPROVED <br> CIP Code <br> (Include $7^{\text {th }} \& 8^{\text {th }}$ digits used <br> for OccuRs <br> reporting.) |  |  | APPROVED <br> Recognition Award | Current Credits |
|  | 6-digit CIP | $\frac{7^{t}}{\text { digit }}$ | $\frac{\frac{8}{}^{\prime \prime}}{\text { digit }}$ |  |  |
| AS Area of Emphasis Title: Engineering - Electrical/Computer |  |  |  | Associate of Applied Science Area of Emphasis | 96-106 |
| Partnering Institution Name Portland State University |  |  |  |  |  |

Last amendment approved on 06.02.17

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |
| :---: | :---: | :---: |
| $\square$ New Agreement | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |
|  |  | Proposed Total Credits: $\begin{array}{l}101- \\ 106\end{array}$ |
| $\square$ SUSPENSION of Program | Reason for Suspension: |  |
| Suspension Effective Date: |  |  |


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| 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 |  | Move to Term 3 |  |  |
|  |  |  |  | CS-161 | Computer Science I | 44 | 4 |
| Winter Term |  |  |  |  |  |  |  |
| ENGR-112 | Engineering Programming | 33 | 3 |  |  |  |  |
| MTH-252 | Calculus II | 55 | 5 |  |  |  |  |
| $\begin{array}{\|l\|l} \hline \text { WR-122 } \\ \text { Or } \\ \text { WR-227** } \end{array}$ | English Composition or <br> Technical Report Writing | 44 | 4 | Move to Term 4 |  |  |  |
| -- | Track Requirement |  | 3-4 | REMOVE |  |  |  |
|  |  |  |  | CS-162 | Computer Science II | 44 | 4 |
|  |  |  |  | ENGR-171 | Digital Logic | 66 | 4 |
| Spring Term |  |  |  |  |  |  |  |
| MTH-261 | Linear Algebra | 44 | 4 |  |  |  |  |
| -- | Arts \& Letters elective |  | 4 | Move to Term 5 |  |  |  |
| -- | Track Requirement |  | 3-5 | REMOVE |  |  |  |
| -- | Track Requirement |  | 3-5 |  |  |  |  |
|  |  |  |  | COMM-111 | Public Speaking | 44 | 4 |
|  |  |  |  | ENGR-271 | Digital Systems | 66 | 4 |
|  |  |  |  | WR-121 | English Composition | 44 | 4 |
| Summer Term |  |  |  |  |  |  |  |
|  |  |  |  | $\begin{aligned} & \hline \text { WR-122 } \\ & \text { Or } \\ & \text { WR-227 } \end{aligned}$ | English Composition or Technical Report Writing | 44 | 4 |
| Program Requirements - Second Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| PH-211 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Track Requirement |  | 3-5 | REMOVE |  |  |  |
| -- | Track Requirement |  | 3-5 |  |  |  |  |
| -- | Track Requirement |  | 3-5 |  |  |  |  |
|  |  |  |  | ENGR-221 | Electrical Circuit Analysis I | 33 | 4 |
|  |  |  |  | MTH-254* | Vector Calculus | 55 | 5 |
|  |  |  |  | -- | Arts \& Letters elective |  | 4 |
| Winter Term |  |  |  |  |  |  |  |
| COMM-111 | Public Speaking | 44 | 4 | Move to Term 3 |  |  |  |
| MTH-256 | Differential Equations | 44 | 4 |  |  |  |  |
| PH-212 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Track Requirement |  | 3-5 | REMOVE |  |  |  |
|  |  |  |  | ENGR-222 | Electrical Circuit Analysis II | 33 | 4 |
|  |  |  |  | -- | Social Science elective |  | 4 |
| Spring Term |  |  |  |  |  |  |  |
| PH-213 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Arts \& Letters or Social Science elective |  | 4 |  |  |  |  |
| -- | Social Science elective |  | 4 | Move to Term 6 |  |  |  |
| -- | Track Requirement |  | 3-5 | REMOVE |  |  |  |


| -- | Track Requirement (if necessary) |  | 3-5 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ENGR-223 | Electrical Circuit Analysis III | 33 | 4 |
|  |  |  |  | MTH-253 | Calculus III | 55 | 5 |
| Catalog Notes |  |  |  |  |  |  |  |
| *Electrical Track only |  |  |  |  |  |  |  |
| Arts \& Letters or Social Science Electives |  |  |  |  |  |  |  |
| Arts \& Letters |  |  |  |  |  |  |  |
| ART-101, 102, 103, 204, 205, 206; <br> ASL-101, 102, 103, 201, 202, 203; <br> COMM-100, 112, 126, 140, 212, 218, 219, 227; <br> ENG-104, 105, 106, 107, 108, 109, 116, 121, 130, 194, 195, 201, <br> 202, 204, 205, 213, 214, 217, 218, 225, 226, 230, 240, 241, 242, <br> 250, 251, 252, 253, 254, 255, 261, 266, 270, 295; <br> FR-101, 102, 103, 201, 202, 203, 211, 212, 213; <br> GER-101, 102, 103, 201, 202, 203; <br> HUM-160, 233, 235, 240, 241, 242; <br> MUS-105, 140, 141, 205, 206, 230; <br> PHL-101, 102, 103, 205, 210, 215; <br> SPN-101, 102, 103, 201, 202, 203, 211, 212, 213; <br> WR-140, 220, 222, 240, 241, 242, 243, 244, 245, 246, 262, 263, <br> 270; |  |  |  | All courses in ASL, COMM, ENG, FR, GER, HUM, PHL, SPN, <br> 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. <br> The accepted courses at CCC are: <br> ART-101, 102, 103, 205, 206; <br> J-211; <br> MUS-105, 141, 205, 206, 230; <br> TA-101, 102; |  |  |  |
| Social Science |  |  |  |  |  |  |  |
| ```ANT-101, 102, 103, 231, 232; EC-200, 201, 202; GEO-100, 110, 121, 122, 130; HST-101, 102, 103, 130, 131, 132, 136, 137, 138, 201, 202, 203, 220; PS-200, 201, 203, 204, 205, 225, 297; PSY-101, 110, 200, 205, 214, 215, 219, 221, 231, 240; SSC-160, 233, 235, 240, 241, 242; SOC-204, 205, 206, 210, 225; WS-101;``` |  |  |  | All courses in ANT, EC, GEO, HST, PS, PSY, SOC, SSC, and WS. |  |  |  |
| Track Requirements |  |  |  |  |  |  |  |
| Computer Engineering |  |  |  |  |  |  |  |
| CS-161 | Computer Science I | 44 | 4 | Move to Term 1 |  |  |  |
| CS-162 | Computer Science II | 44 | 4 | Move to Term 2 |  |  |  |
| ENGR-171 | Digital Logic | 66 | 4 | Move to Term 2 |  |  |  |
| ENGR-221 | Electrical Circuit Analysis I | 33 | 4 | Move to Term 5 |  |  |  |
| ENGR-222 | Electrical Circuit Analysis II | 33 | 4 | Move to Term 6 |  |  |  |
| ENGR-223 | Electrical Circuit Analysis III | 33 | 4 | Move to Term 7 |  |  |  |
| ENGR-271 | Digital Systems | 66 | 4 | Move to Term 3 |  |  |  |
| MTH-253 | Calculus III | 55 | 5 | Move to Term 7 |  |  |  |
| Electrical Engineering |  |  |  |  |  |  |  |
| CS-161 | Computer Science I | 44 | 4 | Move to Term 1 |  |  |  |
| CS-162 | Computer Science II | 44 | 4 | Move to Term 2 |  |  |  |
| ENGR-171 | Digital Logic | 66 | 4 | Move to Term 2 |  |  |  |
| ENGR-221 | Electrical Circuit Analysis I | 33 | 4 | Move to Term 5 |  |  |  |
| ENGR-222 | Electrical Circuit Analysis II | 33 | 4 | Move to Term 6 |  |  |  |
| ENGR-223 | Electrical Circuit Analysis III | 33 | 4 | Move to Term 7 |  |  |  |
| ENGR-271 | Digital Systems | 66 | 4 | Move to Term 3 |  |  |  |
| MTH-253 | Calculus III | 55 | 5 | Move to Term 7 |  |  |  |
| MTH-254 | Vector Calculus | 55 | 5 | Move to Term 5 |  |  |  |
| TOTAL CURRENT CREDITS: |  |  | 96-106 | TOTAL PROPOSED CREDITS: |  |  | 101-106 |
| College Contact |  |  |  | Telephone No. |  |  |  |
| E-Mail Address |  |  |  | Fax No. |  |  |  |
| Chief Academic Officer or CTE Dean Signature |  |  | SoL |  |  | 1/8/19 |  |

## 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 |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\sqrt{ }$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { APPROVED } \\ & \text { Program Title } \end{aligned}$ |  |  |  | APPROVED Recognition Award | Current Credits |
|  | $\underline{6-\text { digit CIP }}$ | $\frac{z^{t h}}{\text { digit }}$ | $\frac{8^{\text {th }}}{\text { digit }}$ |  |  |
| AS Area of Emphasis Title: Engineering - Mechanical |  |  |  | Associate of Applied Science Area of Emphasis | 96-106 |
| Partnering Institution Name Portland State University |  |  |  |  |  |

Last amendment approved on 06.02.17

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| $\square$ New Agreement | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |  |
|  |  |  |  |


| CURRICULUM AMENDMENT <br> [List in a Defined Sequence of Courses Format, e.g., Quarter-to-quarter mapping. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CURRENT CURRICULUM 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| 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 |  |  |  |  |  |  |  |
| ENGR-112 | Engineering Programming | 33 | 3 |  |  |  |  |
| MTH-252 | Calculus II | 55 | 5 |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { WR-122 } \\ \text { Or } \\ \text { WR-227 } \\ \hline \end{array}$ | English Composition or <br> Technical Report Writing | 44 | 4 |  | Move to Term 3 |  |  |
| -- | Track Requirement |  | 3-4 |  | REMOVE |  |  |
|  |  |  |  | CH-222 | General Chemistry | 77 | 5 |
|  |  |  |  | ENGR-231 | Properties of Materials | 66 | 4 |
| Spring Term |  |  |  |  |  |  |  |
| MTH-261 | Linear Algebra | 44 | 4 | Move to Term 4 |  |  |  |
| -- | Arts \& Letters elective |  | 4 | Move to Term 4 |  |  |  |
| -- | Track Requirement |  | 3-5 | REMOVE |  |  |  |
| -- | Track Requirement |  | 3-5 |  |  |  |  |
|  |  |  |  | ENGR-115 | Engineering Graphics | 33 | 3 |
|  |  |  |  | COMM-111 | Public Speaking | 44 | 4 |
|  |  |  |  | MTH-254 | Vector Calculus | 55 | 5 |
|  |  |  |  | WR-122 Or WR-227 | English Composition or <br> Technical Report Writing | 44 | 4 |
| Program Requirements - Second Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| PH-211 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Track Requirement |  | 3-5 | REMOVE |  |  |  |
| -- | Track Requirement |  | 3-5 |  |  |  |  |
| -- | Track Requirement |  | 3-5 |  |  |  |  |
|  |  |  |  | ENGR-211 | Statics | 44 | 4 |
|  |  |  |  | MTH-261 | Linear Algebra | 44 | 4 |
|  |  |  |  | -- | Arts \& Letters elective |  | 4 |
| Winter Term |  |  |  |  |  |  |  |
| COMM-111 | Public Speaking | 44 | 4 | Move to Term 3 |  |  |  |
| MTH-256 | Differential Equations | 44 | 4 |  |  |  |  |
| PH-212 | General Physics with Calculus | 70 | 5 |  |  |  |  |
| -- | Track Requirement |  | 3-5 | REMOVE |  |  |  |
|  |  |  |  | ENGR-212 | Dynamics | 44 | 4 |
|  |  |  |  | -- | Social Science elective |  | 4 |
| Spring Term |  |  |  |  |  |  |  |
| PH-213 | $\qquad$ | 70 | 5 |  |  |  |  |
| -- | Arts \& Letters or Social Science elective |  | 4 |  |  |  |  |
| -- | Social Science elective |  | 4 | Move to Term 5 |  |  |  |
| -- | Track Requirement |  | 3-5 | REMOVE |  |  |  |
| -- | Track Requirement (if necessary) |  | 3-5 |  |  |  |  |
|  |  |  |  | ENGR-201 | Electrical Fundamentals | 33 | 4 |


|  |  |  |  |  | ENGR-213 | Strength of Materials |  | 44 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Electives |  |  |  |  |  |  |  |  |  |
| Arts \& Letters |  |  |  |  |  |  |  |  |  |
| ART-101, 102, 103, 204, 205, 206; <br> ASL-101, 102, 103, 201, 202, 203; <br> COMM-100, 112, 126, 140, 212, 218, 219, 227; <br> ENG-104, 105, 106, 107, 108, 109, 116, 121, 130, 194, 195, 201, <br> 202, 204, 205, 213, 214, 217, 218, 225, 226, 230, 240, 241, 242, <br> 250, 251, 252, 253, 254, 255, 261, 266, 270, 295; <br> FR-101, 102, 103, 201, 202, 203, 211, 212, 213; <br> GER-101, 102, 103, 201, 202, 203; <br> HUM-160, 233, 235, 240, 241, 242; <br> MUS-105, 140, 141, 205, 206, 230; <br> PHL-101, 102, 103, 205, 210, 215; <br> SPN-101, 102, 103, 201, 202, 203, 211, 212, 213; <br> WR-140, 220, 222, 240, 241, 242, 243, 244, 245, 246, 262, 263, $270 ;$ |  |  |  |  | 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. <br> The accepted courses at CCC are: <br> ART-101, 102, 103, 205, 206; <br> J-211; <br> MUS-105, 141, 205, 206, 230; <br> TA-101, 102; |  |  |  |  |
| Social Science |  |  |  |  |  |  |  |  |  |
| ```ANT-101, 102, 103, 231, 232; EC-200, 201, 202; GEO-100, 110, 121, 122, 130; HST-101, 102, 103, 130, 131, 132, 136, 137, 138, 201, 202, 203, 220; PS-200, 201, 203, 204, 205, 225, 297; PSY-101, 110, 200, 205, 214, 215, 219, 221, 231, 240; SSC-160, 233, 235, 240, 241, 242; SOC-204, 205, 206, 210, 225; WS-101;``` |  |  |  |  | All courses in ANT, EC, GEO, HST, PS, PSY, SOC, SSC, and WS. |  |  |  |  |
| Track Requirements |  |  |  |  |  |  |  |  |  |
| Mechanical Engineering |  |  |  |  |  |  |  |  |  |
| CH-222 | General Chemistry |  | 77 | 5 | Move to Term 2 |  |  |  |  |
| ENGR-115 | Engineering Graphics |  | 33 | 3 | Move to Term 3 |  |  |  |  |
| ENGR-211 | Statics |  | 44 | 4 | Move to Term 4 |  |  |  |  |
| ENGR-212 | Dynamics |  | 44 | 4 | Move to Term 5 |  |  |  |  |
| ENGR-213 | Strength of Materials |  | 44 | 4 | Move to Term 6 |  |  |  |  |
| ENGR-221 | Electrical Circuit Analysis I |  | 66 | 4 | REMOVE |  |  |  |  |
| MTH-254 | Vecto |  | 55 | 5 | Move to Term 3 |  |  |  |  |
| Recommended: One additional Arts \& Letters/Social Science elective. 101 total credits at CCC. |  |  |  |  | REMOVE |  |  |  |  |
| TOTAL CURRENT CREDITS: |  |  |  | 96-106 | TOTAL PROPOSED CREDITS: |  |  |  | 101 |
| College Contact |  | Eric Lee |  |  | Telephone No. |  | 6163 |  |  |
| E-Mail Address |  |  |  |  | Fax No. |  |  |  |  |
| Chief Academic Officer orCTE Dean Signature |  |  |  | S2 |  |  | Date | 1/8/19 |  |



## COMMUNITY COLLEGE PROGRAM AMENDMENT FORM

WORKFORCE DEVELOPMENT

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 |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\square$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| APPROVED Program Title <br> (For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232) | APPROVED CIP Code (Include $7^{\text {th }} \boldsymbol{\&} 8^{\text {th }}$ digits used for OCCURS reporting.) |  |  | APPROVED <br> Recognition Award | Current Credits |
| AAS Title: <br> Auto Body/Collision Repair and <br> Refinishing Technology | $\begin{aligned} & 47.060 \\ & 3 \\ & \hline \end{aligned}$ |  |  | $\sqrt{ }$ AAS (90-108 credits) | 93-94 |
| Option Title** |  |  |  | $\square$ OPTION to AAS Degree |  |
| Related Programs: <br> Auto Body Specialist CC <br> Auto Body/Collision Repair and Refinishing Technology CPCC |  |  |  | Certificate of Completion |  |

**Enter name of base degree in 'AAS Title' box LAST AMENDMENT APPROVED ON 01/19/18

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |  |
| :---: | :---: | :---: | :---: |
| - New Program++ | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |  |
| $\square$ Title Change for Program |  | Proposed Total Credits: | 91-92 |
| Proposed AAS Title: |  |  |  |
| Proposed OPTION Title: |  |  |  |
| Proposed Certificate Title: |  |  |  |
| $\square$ 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 <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| Course Number | Course Title | Clock <br> Hours | Credits | Course Number | Course Title | Clock <br> Hours | Credits |
| Auto Body/Collision Repair and Refinishing Technology Associate of Applied Science Degree: $1^{\text {st }}$ Year |  |  |  |  |  |  |  |
| Fall |  |  |  |  |  |  |  |
| AB-112 | Collision Repair Welding I | 48 | 2 |  |  |  |  |
| AB-113 | Collision Repair I/Nonstructural | 132 | 6 |  |  |  |  |
| ABR-125 | Collision Repair/Refinishing I | 132 | 6 |  |  |  |  |
| MTH-050 Or MTH-065 | Technical Mathematics I or Algebra II | 44 | 4 |  |  |  |  |
| Winter |  |  |  |  |  |  |  |
| AB-123 | Collision Repair Welding II | 48 | 2 |  |  |  |  |
| AB-133 | Collision Repair II/Structural | 132 | 6 |  |  |  |  |
| ABR-127* | Collision Repair/Refinishing II | 132 | 6 |  |  |  |  |
| Spring |  |  |  |  |  |  |  |
| AB-222 | Collision Repair III/Advanced Structural | 132 | 6 |  |  |  |  |
| ABR-129 | Collision Repair/Refinishing III | 132 | 6 |  |  |  |  |
| -- | Human Relations requirement (see page 82) (Recommended: COMM-100 or PSY-101 |  | 3 |  |  |  |  |
| Auto Body/Collision Repair and Refinishing Technology Associate of Applied Science Degree: ${ }^{\text {nd }}$ Year |  |  |  |  |  |  |  |
| Fall |  |  |  |  |  |  |  |
| AB-149 | Collision Repair Estimating I | 28 | 2 |  |  |  |  |
| AB-224 | Collision Repair IV/Advanced Structural | 132 | 6 |  |  |  |  |
| ABR-225 | Production Shop Techniques | 132 | 6 |  |  |  |  |
| -- | PE/Health/Safety/First Aid requirement (see page 82) <br> (Recommended: HE-252 or MFG-107) |  | 3 |  |  |  |  |
| Winter |  |  |  |  |  |  |  |
| AB-150 | Collision Repair Computerized Estimating Audatex | 44 | 2 |  |  |  |  |
| AB-226 | Collision Repair V/Advanced Structural | 132 | 6 |  |  |  |  |
| AB-235 | Collision Repair Welding III | 48 | 2 |  |  |  |  |
| ABR-227 | Restoration Practices | 132 | 6 |  |  |  |  |
| Spring |  |  |  |  |  |  |  |


| AB-151 | Collision Repair <br> Computerized Estimating - <br> CCC ONE | 44 | 2 |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| AB-280 | Collision Repair/CWE | 216 | 6 |  |  |  |  |
| ABR-142 <br> Or <br> ABR-152 <br> Or <br> ABR-162 | Airbrush Art <br> Custom Painting <br> Fundamentals <br> Basic Automotive <br> Pinstriping | 44 | 2 |  |  |  |  |
| WR-101 <br> Or <br> WR-121 | Communication Skills: <br> Occupational Writing <br> or <br> English Composition | $\mathbf{3 3 -}$ |  |  |  |  |  |


| College Contact | Dave Bradley |  | Telephone No. | 3051 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| E-Mail Address |  |  | Fax No. |  |  |
| Chief Academic Officer or PTE Dean Signature |  | Potuir R isen |  | Date | 1/11/19 |



## COMMUNITY COLLEGE PROGRAM AMENDMENT FORM

WORKFORCE DEVELOPMENT
WORKSOURCE OREGON
(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 |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square . \quad$ Human Resources |
| $\square$ Business \& Management | $\square \quad$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| APPROVED Program Title <br> (For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232) | APPROVEDCIP Code(Include $7^{\text {th }} \& 8^{\text {th }}$ digits <br> used for occurs <br> reporting.) |  |  | APPROVED Recognition Award | Current Credits |
| AAS Title: <br> Clinical Laboratory Assistant Certificate |  |  |  | Associate of Applied Science (AAS) Degree |  |
| Option Title** |  |  |  | $\square$OPTION to AAS <br> Degree |  |
| Certificate Title: Within AAS Degree? $\square$ Yes** $V$ No Basic Health Sciences Career Pathway | 51.0802 |  |  | $\sqrt{ }$ Career Pathway (12-44) | 16 |

**Enter name of base degree in 'AAS Title' box NEW PROGRAM APPROVED ON 08/03/17

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |  |
| ---: | ---: | :--- | :--- |
| $\square$ New Program++ | $\square$ Curriculum Revision | $\checkmark$ Revision in Program Credits |  |
| Title Change for Program |  |  |  |
| Proposed AAS Title: |  |  |  |
| Proposed OPTION Title: |  |  |  |
| Proposed Certificate Title: |  |  |  |
| $\square$ SUSPENSION of Program | Reason for Suspension: |  |  |
| Suspension Effective Date: |  |  |  |

[^0]
## 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 2018-19
[List entire curriculum as last approved)

| Course | Tist ente | Hours | Credits |  |
| :--- | :--- | :--- | :--- | :--- |
| CLA-100 | Introduction to Health Care | 22 | 2 |  |
| MA-110 | Medical Terminology | 33 | 3 |  |
| MTH-065 | Algebra II | 44 | 4 |  |
| PSY-101 | Human Relations | 33 | 3 |  |
| WR-121 | English Composition | 44 | 4 |  |
| TOTAL CURRENTCREDITS: | 16 |  |  |  |


| College Contact | Allied Health |  | Telephone No. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| E-Mail Address |  |  | Fax No. |  |  |
| Chief Academic Officer or PTE Dean Signature |  | Onteir R inicn |  | Date | 12/18/18 |



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 |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\square$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| APPROVED Program Title <br> (For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232) | $\frac{\text { APPRROVED }}{\text { CIP Code }}$ <br> (Include $7^{\text {th }} \& 8^{\text {th }}$ digits <br> used for Occurs <br> reporting.) |  |  | APPROVED <br> Recognition Award | Current Credits |
| AAS Title: |  |  |  | Associate of Applied Science (AAS) Degree |  |
| Related Program: Basic Health Science Career Pathway |  |  |  | $\square$OPTION to AAS <br> Degree |  |
| Certificate Title: WithinAAS Degree? $\quad$ Yes** $\downarrow$ No <br> Clinical Laboratory Assistant Certificate | 51.0802 |  |  | $\begin{array}{\|ll\|} \hline V & \text { CC1 } \\ & \text { (45-60 credits) } \end{array}$ | 45-47 |

**Enter name of base degree in 'AAS Title' box
LAST AMENDMENT APPROVED ON 01/19/18

## TYPE OF PROGRAM AMENDMENT

(Check ALL That Apply)

| New Program++ <br> Title Change for Program | $\square$ Curriculum Revision | $\checkmark$ Revision in Program Credits |  |
| :---: | :---: | :---: | :---: |
|  |  | Proposed Total Credits: |  |
| Proposed AAS Title: |  |  |  |
| Proposed OPTION Title: |  |  |  |
| Proposed Certificate Title: | Clinical Laboratory Assistant/Phlebotomy Certificate |  |  |
| $\square$ SUSPENSION of Program | Reason for Suspension: |  |  |


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20[List only course(s) to be amended] |  |  |  |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| Clinical Laboratory Assistant Certificate Prerequisites |  |  |  |  |  |  |  |
| The following prerequisites must be completed prior to the start of the student's cohort. Curriculum prerequisites and requirements may change yearly. To see prerequisites or requirements, please review the department website. |  |  |  |  |  |  |  |
| MA-110 | Medical Terminology | 33 | 3 | MA-110 | Medical Terminology | 44 | 4 |
| MTH-050 Or $\qquad$ | Technical Mathematics I or Algebra II | 44 | 4 |  |  |  |  |
| Clinical Laboratory Assistant Certificate |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| BI-120* | Introduction to Human Anatomy and Physiology | 66 | 4 |  |  |  |  |
| CLA-100 | Introduction to Health Care | 22 | 2 |  |  |  |  |
| CLA-101 | Clinical Laboratory Assistant Skills I | 33 | 3 |  |  |  |  |
| CLA-101L | Clinical Laboratory Assistant Skills Lab I | 33 | 1 |  |  |  |  |
| CLA-118 | Phlebotomy for Clinical Laboratory Assistants | 11 | 1 |  |  |  |  |
| CLA-118L | Phlebotomy for Clinical Laboratory Assistant Lab | 33 | 1 |  |  |  |  |
| WR-101 Or WR-121 | Communication Skills: Occupational Writing or English Composition | $\begin{array}{\|l} \hline 33- \\ 44 \end{array}$ | 3-4 |  |  |  |  |
| Winter Term |  |  |  |  |  |  |  |
| CLA-102 | Clinical Laboratory Assistant Skills II | 33 | 3 |  |  |  |  |
| CLA-102L | Clinical Laboratory Assistant Skills Lab II | 33 | 1 |  |  |  |  |
| CLA-115 | Laboratory Administrative Skills | 22 | 2 |  |  |  |  |
| CLA-119 | Laboratory/Phlebotomy Practicum | 82 | 3 |  |  |  |  |
| CLA-130 | Specimen Collection | 22 | 1 |  |  |  |  |
| CS-120 | Survey of Computing | 55 | 4 |  |  |  |  |
| Spring Term |  |  |  |  |  |  |  |
| CLA-103 | Clinical Laboratory Assistant Skills III | 33 | 3 |  |  |  |  |
| CLA-103L | Clinical Laboratory Assistant Skills Lab III | 33 | 1 |  |  |  |  |
| CLA-120 | Laboratory/Phlebotomy Practicum II | 107 | 4 |  |  |  |  |
| CLA-125 | Introduction to Clinical Research | 22 | 2 |  |  |  |  |



| College Contact | health-sciences-questions@clackamas.edu |  | Telephone No. |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: |
| E-Mail Address |  |  |  |  |  | Fax No. |  |
| Chief Academic Officer or <br> PTE Dean Signature |  | Date | 1/3/19 |  |  |  |  |



## COMMUNITY COLLEGE PROGRAM AMENDMENT FORM

WORKFORCE DEVELOPMENT WORKSOURCE OREGON
(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 |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\square$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| APPROVED <br> Program Title <br> ficial Program Title, refer to your directory at www.ode.state.or.us/search/results/?id=232) | $\frac{\text { APPROVED }}{\text { CIP Code }}$ <br> (Include $7^{\text {th }} \& 8^{\text {th }}$ <br> used digits <br> reporting.) <br> rever |  |  | APPROVED <br> Recognition Award | $\begin{aligned} & \text { Current } \\ & \text { Credits } \end{aligned}$ |
| AAS Title: Criminal Justice | 43.0107 |  |  | $\checkmark$ AAS (90-108 credits) | 91-95 |
| Related Option: Corrections |  |  |  | $\square$OPTION to AAS <br> Degree |  |
| Related Certificates: |  |  |  | Certificate of Completion |  |

**Enter name of base degree in 'AAS Title' box LAST AMENDMENT APPROVED ON 01/19/18

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |  |
| :---: | :---: | :---: | :---: |
| ㅁ New Program++ <br> $\square$ Title Change for Program | $\square$ Curriculum Revision | $\checkmark$ Revision in Program Credits |  |
|  |  | Proposed Total Credits: | 90-92 |
| Proposed AAS Title: |  |  |  |
| Proposed OPTION Title: |  |  |  |
| Proposed Certificate Title: |  |  |  |
| $\square$ SUSPENSION of Program | Reason for Suspension: |  |  |
| Suspension Effective Date: |  |  |  |


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20[List only course(s) to be amended] |  |  |  |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| Criminal Justice Associate of Applied Science Degree: $1^{\text {st }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| CJA-110 | Introduction to Law Enforcement | 44 | 4 | CJA-110 | Introduction to Law Enforcement | 33 | 3 |
| CJA-122 | Criminal Law | 44 | 4 |  |  |  |  |
| $\begin{aligned} & \text { MTH-050 } \\ & \text { or MTH-065 } \\ & \text { or MTH-098 } \end{aligned}$ | Technical Mathematics I <br> Algebra II <br> College Math Foundations | 44 | 4 |  | REMOVE |  |  |
| WR-121 | English Composition | 44 | 4 |  |  |  |  |
|  |  |  |  | MTH-098 | College Math Foundations | 44 | 4 |
| Winter Term |  |  |  |  |  |  |  |
| $\begin{aligned} & \hline \text { CJA-101 } \\ & \text { or CJA-201 } \end{aligned}$ | Criminology Juvenile Delinquency | 44 | 4 |  |  |  |  |
| CJA-120 | Judicial Process | 33 | 3 | CJA-120 | Introduction to Courts | 33 | 3 |
| CJA-203 | Crisis Intervention | 33 | 3 |  |  |  |  |
| WR-122 | English Composition | 44 | 4 |  |  |  |  |
|  |  |  |  | LIB-101 | Introduction to Library Research | 11 | 1 |
| Spring Term |  |  |  |  |  |  |  |
| CJA-130 | Introduction to Corrections | 33 | 3 |  |  |  |  |
| CJA-243 | Drugs, Crime and the Law | 33 | 3 |  |  |  |  |
| PSY-219 | Introduction to Abnormal Psychology | 44 | 4 |  |  |  |  |
| -- | Criminal Justice program electives |  | 3-4 |  | REMOVE |  |  |
|  |  |  |  | HD-161 | Multicultural Awareness | 33 | 3 |
| Criminal Justice Associate of Applied Science Degree: $2^{\text {nd }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| CJA-170 | Careers in Criminal Justice | 33 | 3 | Move to term 5 |  |  |  |
| CJA-210 | Criminal Investigation I | 33 | 3 |  |  |  |  |
| HE-163 <br> or HE-205 | Body \& Drugs I: <br>  <br> Addiction <br> Youth Addictions | 33 | 3 | REMOVE |  |  |  |
| HS-260 | Victim Advocacy \& Assistance | 44 | 4 | REMOVE |  |  |  |
| -- | Criminal Justice program electives |  | 3-4 |  |  |  |  |
|  |  |  |  | CJA-214 | Intimate Partner Violence | 33 | 3 |
|  |  |  |  | CJA-223 | Criminal Justice Ethics | 33 | 3 |
|  |  |  |  | HDF-260 | Understanding Child Abuse and Neglect | 44 | 4 |
| Winter Term |  |  |  |  |  |  |  |
| CJA-211 | Criminal Investigation II | 33 | 3 |  |  |  |  |
| CJA-222 | Procedural Law | 33 | 3 |  |  |  |  |
| CJA-223 | Criminal Justice Ethics | 33 | 3 | Move to term 4 |  |  |  |


| CJA-280 | Criminal <br> Justice/Corrections/CWE | 108 | 3 | Move to term 6 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CWE-281 | Cooperative Work Experience Seminar | 16 | 0 | REMOVE |  |  |  |
| -- | Criminal Justice program electives |  | 3-4 |  |  |  |  |
|  |  |  |  | CJA-170 | Careers in Criminal Justice | 33 | 3 |
|  |  |  |  | HPE-296 | Health and Fitness for Criminal Justice | 33 | 3 |
| Spring Term |  |  |  |  |  |  |  |
| CJA-200 | Community Policing in a Culturally Diverse Society | 44 | 4 | CJA-200 | Community Policing | 33 | 3 |
| CJA-212 | Criminal Investigation III | 33 | 3 |  |  |  |  |
| CJA-250 | Reporting, Recording \& Testifying | 44 | 4 |  |  |  |  |
| CJA-281 | Criminal Justice/Corrections/CWE | 108 | 3 | REMOVE |  |  |  |
| CWE-281 | Cooperative Work Experience Seminar | 16 | 0 | REMOVE |  |  |  |
| -- | Criminal Justice program electives |  | 3-4 | REMOVE |  |  |  |
|  |  |  |  | CJA-270 | Criminal Justice Capstone | 33 | 3 |
|  |  |  |  | $\begin{aligned} & \text { CJA-280 } \\ & \text { Or } \\ & \text { HD-102 } \end{aligned}$ | Criminal <br> Justice/Corrections/CWE <br> Or <br> Service Learning <br> Experience | 108 | 3 |
| Criminal Justice Program Electives |  |  |  |  |  |  |  |
| Any ASL, CJA, FR, GER, HS, PHL, PS, PSY, SOC, or SPN course not included in the Criminal Justice Program, or any of the following: |  |  |  | Any CJA course not included in the Criminal Justice Program, or any of the following: |  |  |  |
| COMM-126 | Communication Between the Sexes | 44 | 4 | REMOVE |  |  |  |
| COMM-140 | Introduction to Intercultural Communication | 44 | 4 | REMOVE |  |  |  |
| COMM-218 | Interpersonal Communication | 44 | 4 | REMOVE |  |  |  |
| COMM-227 | Nonverbal Communication | 44 | 4 | REMOVE |  |  |  |
| GRN-183 | Death and Dying | 33 | 3 |  |  |  |  |
| HDF-260 | Understanding Child Abuse and Neglect | 44 | 4 | REMOVE |  |  |  |
| HST-131 | History of Crime \& Punishment in Western Civilization | 44 | 4 |  |  |  |  |
| TOTAL CURRENTCREDITS: |  |  | 91-95 | TOTAL PROPOSED CREDITS: |  |  | 90-92 |


| College Contact | Sharron Furno | Telephone No. | 6224 |  |
| :--- | :--- | :--- | :--- | :--- |
| E-Mail Address | sharron.furno@clackamas.edu | Fax No. |  |  |
| Chief Academic Officer or <br> PTE Dean Signature |  | Date | $\mathbf{1 1 / 2 7 / 1 8}$ |  |



## COMMUNITY COLLEGE PROGRAM AMENDMENT FORM

WORKFORCE DEVELOPMENT
WORKSOURCE OREGON
(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 |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\square$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| APPROVED Program Title <br> (For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232) | APPROVEDCIP Code <br> (Include $7^{\text {th }} \& 8^{\text {th }}$ <br> usiged for <br> reporting. <br> recurs |  |  | APPROVED Recognition Award | Current Credits |
| AAS Title: Criminal Justice |  |  |  | $\square$ AAS |  |
| Option Title** Corrections | 43.0102 |  |  | $\sqrt{ }$ OPTION to AAS (at least 70\% of base AAS, 90-108 credits) | 91 |
| Related Certificate: Corrections Certificate |  |  |  | Certificate of Completion |  |

**Enter name of base degree in 'AAS Title' box
LAST AMENDMENT APPROVED ON 01/19/18

## TYPE OF PROGRAM AMENDMENT

(Check ALL That Apply)

| New Program++ <br> Title Change for Program | $\square x$ Curriculum Revision | $\square \times$ Revision in Program Credits |  |
| :---: | :---: | :---: | :---: |
|  |  | Proposed Total Credits: | 91-92 |
| Proposed AAS Title: |  |  |  |
| Proposed OPTION Title: |  |  |  |
| Proposed Certificate Title: |  |  |  |
| $\square$ 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.
lis\i:\curriculum office<br>(02) curriculum committee\1-meetings\2018-19 meeting handouts\2019-01.18\all program changes\amendments\amendment criminal justice aas - corrections option.docx\09202005

| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| Corrections Associate of Applied Science Degree: $1^{\text {st }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| CJA-110 | Introduction to Law Enforcement | 44 | 4 | CJA-110 | Introduction to Law Enforcement | 33 | 3 |
| CJA-122 | Criminal Law | 44 | 4 |  |  |  |  |
| $\begin{aligned} & \hline \text { MTH-050 } \\ & \text { or MTH-065 } \\ & \text { or MTH-098 } \\ & \hline \end{aligned}$ | Technical Mathematics I Algebra II College Math Foundations | 44 | 4 |  | Remove |  |  |
| WR-121 | English Composition | 44 | 4 |  |  |  |  |
|  |  |  |  | MTH-098 | College Math Foundations | 44 | 4 |
| Winter Term |  |  |  |  |  |  |  |
| $\begin{aligned} & \hline \text { CJA-101 } \\ & \text { or CJA-201 } \\ & \hline \end{aligned}$ | Criminology Juvenile Delinquency | 44 | 4 |  |  |  |  |
| CJA-120 | Judicial Process | 33 | 3 | CJA-120 | Introduction to Courts | 33 | 3 |
| CJA-203 | Crisis Intervention | 33 | 3 |  |  |  |  |
| WR-122 | English Composition | 44 | 4 |  |  |  |  |
|  |  |  |  | LIB-101 | Introduction to Library Research | 11 | 1 |
| Spring Term |  |  |  |  |  |  |  |
| CJA-130 | Introduction to Corrections | 33 | 3 |  |  |  |  |
| CJA-243 | Drugs, Crime and the Law | 33 | 3 |  |  |  |  |
| PSY-219 | Introduction to Abnormal Psychology | 44 | 4 |  |  |  |  |
| -- | Corrections program elective |  | 3 |  | Remove |  |  |
|  |  |  |  | HD-161 | Multicultural Awareness | 33 | 3 |
| Corrections Association of Applied Science Degree: $2^{\text {nd }}$ Year |  |  |  |  |  |  |  |
| Fall Term |  |  |  |  |  |  |  |
| CJA-170 | Careers in Criminal Justice | 33 | 3 | Move to term 5 |  |  |  |
| CJA-252 | Introduction to Restorative Justice | 33 | 3 |  |  |  |  |
| $\begin{array}{\|l} \hline \text { HE-163 } \\ \text { Or } \\ \text { HE-205 } \\ \hline \end{array}$ | Body \& Drugs I: <br>  <br> Addiction <br> Youth Addictions | 33 | 3 | Remove |  |  |  |
| HS-260 | Victim Advocacy \& Assistance | 44 | 4 | Remove |  |  |  |
|  |  |  |  | CJA-223 | Criminal Justice Ethics | 33 | 3 |
|  |  |  |  | HE-163 | Body \& Drugs I: <br>  <br> Addiction | 33 | 3 |
|  |  |  |  | HDF-260 | Understanding Child Abuse and Neglect | 44 | 4 |
| -- | Corrections program elective |  | 3 | -- | Corrections program elective |  | 3-4 |


| Winter Term |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CJA-134 | Correctional Institutions | 33 | 3 |  |  |  |  |
| CJA-223 | Criminal Justice Ethics | 33 | 3 | Move to term 4 |  |  |  |
| CJA-280 | Criminal <br> Justice/Corrections/CWE | 108 | 3 | Move to term 6 |  |  |  |
| CWE-281 | Cooperative Work Experience Seminar | 16 | 0 | Remove |  |  |  |
| HS-156 | Conducting Human Service Interviews | 33 | 3 |  |  |  |  |
| HS-211 | Infectious Diseases and Harm Reduction | 11 | 1 |  |  |  |  |
| -- | Corrections program elective |  | 3 | Remove |  |  |  |
|  |  |  |  | CJA-170 | Careers in Criminal Justice | 33 | 3 |
|  |  |  |  | HPE-296 | Health and Fitness for Criminal Justice | 33 | 3 |
|  |  |  |  | HS-216 | Group Counseling Skills | 33 | 3 |
| Spring Term |  |  |  |  |  |  |  |
| CJA-232 | Case Management | 33 | 3 |  |  |  |  |
| CJA-250 | Reporting, Recording \& Testifying | 44 | 4 |  |  |  |  |
| CJA-281 | Criminal <br> Justice/Corrections/CWE | 108 | 3 | Remove |  |  |  |
| CWE-281 | Cooperative Work Experience Seminar | 16 | 0 | Remove |  |  |  |
| HS-216 | Group Counseling Skills | 33 | 3 | Move to term 5 |  |  |  |
| -- | Corrections program elective |  | 3 | Remove |  |  |  |
|  |  |  |  | Trafficking |  | 33 | 3 |
|  |  |  |  | CJA-270 | Criminal Justice Capstone | 33 | 3 |
|  |  |  |  | $\begin{aligned} & \text { CJA-280 } \\ & \text { or HD-102 } \end{aligned}$ | ```Criminal Justice/Corrections/CWE Or Service Learning Experience``` | 108 | 3 |
| Corrections Program Electives |  |  |  |  |  |  |  |
| Any ASL, CJA, FR, GER, HS, PHL, PS, PSY, SOC, or SPN course not already included in the Corrections Program, or any of the following: |  |  |  | Any CJA course not already included in the Corrections Program, or any of the following: |  |  |  |
| COMM-126 | Communication Between the Sexes | 44 | 4 | Remove |  |  |  |
| COMM-140 | Introduction to Intercultural Communication | 44 | 4 | Remove |  |  |  |
| COMM-218 | Interpersonal Communication | 44 | 4 | Remove |  |  |  |
| COMM-227 | Nonverbal Communication | 44 | 4 | Remove |  |  |  |
| GRN-183 | Death and Dying | 33 | 3 |  |  |  |  |
| HDF-260 | Understanding Child Abuse and Neglect | 33 | 4 | Remove |  |  |  |


| HST-131 |  <br> Punishment in Western <br> Civilization | 44 | 4 |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| TOTAL CURRENT CREDITS: | 91 | TOTAL PROPOSED CREDITS: |  |  |  |  |


| College Contact | Ida Flippo | Telephone No. | 3363 |
| :--- | :--- | :--- | :--- | :--- |
| E-Mail Address | iflipp@clackamas.edu | Fax No. |  |
| Chief Academic Officer or <br> PTE Dean Signature |  | Date | $\mathbf{1 1 / 2 7 / 1 8}$ |



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 |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\sqrt{ }$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\square$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| APPROVED Program Title <br> (For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232) | APPROVED <br> CIP Code <br> Include $7^{\text {th }} \& 8^{\text {th }}$ digits <br> used for occurs <br> reporting.) |  |  | APPROVED <br> Recognition Award | Current Credits |
| AAS Title: <br> Emergency Medical Technology- <br> Paramedic AAS |  |  |  | Associate of Applied Science (AAS) Degree |  |
| Option Title** |  |  |  | $\square \begin{aligned} & \text { OPTION to AAS } \\ & \text { Degree }\end{aligned}$ |  |
| Certificate Title: Within AAS Degree? V Yes** $\quad$ No <br> Emergency Medical Technology | 51.0904 |  |  | $\checkmark$ SSC1 Statewide Certificate (45-60 credits) | 53 |

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

LAST AMENDMENT APPROVED ON 04/06/18

## TYPE OF PROGRAM AMENDMENT

(Check ALL That Apply)

| $\square$ New Program++ |
| ---: |
| $\square$ Title Change for Program |
| Proposed AAS Title: |
| Proposed OPTION Title: |
| Proposed Certificate Title: |
| $\square$ SUSPENSION of Program |
| Suspension Effective Date: |


| $\square$ Curriculum Revision | $\square$ Revision in Program Credits |  |
| :---: | :---: | :---: |
|  | Proposed Total Credits: | 54 |
|  |  |  |
|  |  |  |
|  |  |  |
| Reason for Suspension: |  |  |

[^1]
## 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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| Fall Term |  |  |  |  |  |  |  |
| BI-231 | Human Anatomy \& Physiology I | 66 | 4 |  |  |  |  |
| EMT-101* | Emergency Medical Technology Part I | 77 | 5 |  |  |  |  |
| EMT-105 | Introduction to Emergency Medical Services | 33 | 3 |  |  |  |  |
| MA-110 | Medical Terminology | 33 | 3 | MA-110 | Medical Terminology | 44 | 4 |
| MTH-065 | Algebra II | 44 | 4 |  |  |  |  |
| Winter Term |  |  |  |  |  |  |  |
| BI-232 | Human Anatomy \& Physiology II | 66 | 4 |  |  |  |  |
| CJA-203 | Crisis Intervention | 33 | 3 |  |  |  |  |
| EMT-102 | Emergency Medical Technology Part II | 77 | 5 |  |  |  |  |
| EMT-109 | Emergency Response Communication/Documentati on | 22 | 2 |  |  |  |  |
| WR-121 | English Composition | 44 | 4 |  |  |  |  |
| Spring Term |  |  |  |  |  |  |  |
| BI-233 | Human Anatomy \& Physiology III | 66 | 4 |  |  |  |  |
| COMM-111 | Public Speaking | 44 | 4 |  |  |  |  |
| EMT-107 | EMT Rescue | 49 | 3 |  |  |  |  |
| EMT-108 | Emergency Response Patient Transportation | 44 | 2 |  |  |  |  |
| PSY-101 | Human Relations | 33 | 3 |  |  |  |  |
| Catalog Notes |  |  |  |  |  |  |  |
| *Student Petition Required |  |  |  |  |  |  |  |
| Current Healthcare Provider level CPR (AHA or ASHI) are required; criminal history background check, proof of immunization, and students will be asked to take a drug test as arranged by the department |  |  |  |  |  |  |  |
| TOTAL CURRENTCREDITS: |  |  | 53 | TOTAL PROPOSED CREDITS: |  |  | 54 |


| College Contact | EMT P | Program Director | Telephone No. | 0696 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| E-Mail Address |  |  | Fax No. |  |  |
| Chief Academic Officer or PTE Dean Signature |  | $\text { Sntoing } \operatorname{Sincmin}_{\text {incis }}$ |  | Date | 1/3/19 |



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 |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\square$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| APPROVED Program Title | APPROVED CIP Code <br> (Include $7^{\text {th }} \boldsymbol{\&} \boldsymbol{8}^{\mathbf{8 t h}^{\text {th }}}$ digits used for OCCURS reporting.) |  |  | APPROVED <br> Recognition Award | Current Credits |
| (For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232) | 6-digit CIP | $\frac{z^{n}}{\text { diqit }}$ | $\frac{{\frac{\beta}{}{ }^{\text {b }}}^{\text {digit }}}{}$ |  |  |
| AAS Title: Horticulture | 1.0601 |  |  | $\sqrt{ }$ AAS(90-108 credits) | 97-101 |
| Option Title** |  |  |  | $\square \begin{aligned} & \text { OPTION to AAS } \\ & \text { Degree }\end{aligned}$ Degree |  |
| Related Certificates: <br> Horticulture Certificate <br> Irrigation Technician CP <br> Plant Health Management CP |  |  |  | $\square$ Certificate of Completion |  |

**Enter name of base degree in 'AAS Title' box LAST AMENDMENT APPROVED ON 01/19/2018

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |  |
| :---: | :---: | :---: | :---: |
| $\square$ New Program++ | $\square$ Curriculum Revision | $\checkmark$ Revision in Program Credits |  |
| $\square$ Title Change for Program |  | Proposed Total Credits: | 94-98 |
| Proposed AAS Title: |  |  |  |
| Proposed OPTION Title: |  |  |  |
| Proposed Certificate Title: |  |  |  |
| - SUSPENSION of Program | Reason for Suspension: |  |  |
| Suspension Effective Date: |  |  |  |

[^2]| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20[List only course(s) to be amended] |  |  |  |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| Horticulture Associate of Applied Science Degree: $1^{\text {st }}$ Year |  |  |  |  |  |  |  |
| Fall Term1 |  |  |  |  |  |  |  |
| HOR-111 | Horticulture Practicum/Fall | 44 | 2 |  |  |  |  |
| HOR-115 | Horticulture Safety | 10 | 1 |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { HOR-122 } \\ \text { Or } \\ \text { HOR-224 } \\ \hline \end{array}$ | Greenhouse I <br> or <br> Landscape Installation | 44 | 3 | Move to Term 5 |  |  |  |
| HOR-226 | Plant Identification/Fall | 44 | 4 |  |  |  |  |
| MTH-050 or MTH-065 or higher level math | Technical Mathematics I or <br> Algebra II or higher level math | 44 | 4-5 |  |  |  |  |
|  |  |  |  | HOR-223 | Applied Plant Science | 44 | 4 |
| Winter Term2 |  |  |  |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { HOR-130 } \\ \text { Or } \\ \text { HOR-131 } \\ \hline \end{array}$ | Plant Propagation Theory or <br> Tree \& Shrub Pruning | 33-44 | 3 |  |  |  |  |
| HOR-133 | Horticulture Practicum/Winter | 44 | 2 |  |  |  |  |
| HOR-216 | Integrated Pest Management | 33 | 3 |  |  |  |  |
| HOR-222 | Horticultural Computer Applications | 20 | 2 |  |  |  |  |
| HOR-227 | Plant Identification/Winter | 44 | 4 |  |  |  |  |
| Spring Term3 |  |  |  |  |  |  |  |
| HOR-112 | Horticulture Career Exploration | 24 | 2 |  |  |  |  |
| HOR-120 | Pesticide Laws \& Safety | 12 | 1 |  |  |  |  |
| HOR-140 | Soils | 33 | 3 |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { HOR-142 } \\ \text { Or } \\ \text { HOR-145 } \end{array}$ | Greenhouse II or <br>  <br> Maintenance | 44 | 2-3 | Move to Term 7 |  |  |  |
| HOR-143 | Horticulture Practicum/Spring | 44 | 2 |  |  |  |  |
| HOR-228 | Plant Identification/Spring | 44 | 4 |  |  |  |  |
|  |  |  |  | $\begin{aligned} & \text { WR-101 } \\ & \text { Or } \\ & \text { WR-121 } \end{aligned}$ | Communication Skills: Occupational Writing or English Composition | $\begin{array}{\|l\|} \hline 33- \\ 44 \end{array}$ | 3-4 |
| Summer Term4 |  |  |  |  |  |  |  |
| HOR-281 <br> Or <br> HOR-280 <br> and | Horticulture/CWE or Horticulture/CWE and | 180 | 6 |  |  |  |  |


| HOR-282 | Horticulture/CWE |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Horticulture Associate of Applied Science Degree: $2^{\text {nd }}$ Year |  |  |  |  |  |  |  |
| Fall Term5 |  |  |  |  |  |  |  |
| HOR-223 | Applied Plant Science | 44 | 4 | Move to Term 1 |  |  |  |
| $\begin{aligned} & \hline \text { HOR-235 } \\ & \text { Or } \\ & \text { HOR-236 } \end{aligned}$ | Weed Identification or Insect Identification | 20 | 2 |  |  |  |  |
| SPN-101 | First-Year Spanish I | 44 | 4 |  |  |  |  |
| $\begin{aligned} & \text { WR-101 } \\ & \text { Or } \\ & \text { WR-121 } \end{aligned}$ | Communication Skills: Occupational Writing or <br> English Composition | $\begin{aligned} & \hline 33- \\ & 44 \end{aligned}$ | 3-4 | Move to Term 3 |  |  |  |
| -- | Horticulture program electives |  | 3 |  |  |  |  |
|  |  |  |  | BA-285 Or COMM100 | Human Relations in Business or Basic Speech Communication | $\begin{array}{\|l} \hline 33- \\ 44 \end{array}$ | 3-4 |
|  |  |  |  | $\begin{aligned} & \text { HOR-122 } \\ & \text { Or } \\ & \text { HOR-224 } \end{aligned}$ | Greenhouse I or Landscape Installation | 44 | 3 |
| Winter Term6 |  |  |  |  |  |  |  |
| BA-101 | Introduction to Business | 44 | 4 |  |  |  |  |
| BA-119 | Project Management Practices | 22 | 2 |  |  |  |  |
| HOR-230 | Equipment Operation \& Maintenance | 44 | 2 |  |  |  |  |
| HOR-231 | Irrigation Design | 44 | 3 |  |  |  |  |
| HOR-237 | Disease Identification | 20 | 2 |  |  |  |  |
| -- | Horticulture program electives |  | 3 |  |  |  |  |
| Spring Term7 |  |  |  |  |  |  |  |
| BA-285 Or COMM-100 | Human Relations in Business or Basic Speech Communication | $\begin{aligned} & \hline 33- \\ & 44 \end{aligned}$ | 3-4 | Move to Term 5 |  |  |  |
| HE-252** | First Aid/CPR/AED | 33 | 3 | REMOVE |  |  |  |
| HOR-240 | Irrigation Practices | 44 | 3 |  |  |  |  |
| -- | Horticulture program electives |  | 8 |  |  |  |  |
|  |  |  |  | $\begin{aligned} & \hline \text { HOR-142 } \\ & \text { Or } \\ & \text { HOR-145 } \end{aligned}$ | Greenhouse II or <br> Turf Installation \& Maintenance | 44 | 2-3 |
| Horticulture Program Electives |  |  |  |  |  |  |  |
| BA-223 | Principles of Marketing | 44 | 4 |  |  |  |  |
| HOR-113 | Organic Farming Practicum/Fall | 55 | 3 |  |  |  |  |
| $\begin{aligned} & \text { HOR-122 } \\ & \text { Or } \\ & \text { HOR-224 } \end{aligned}$ | Greenhouse I <br> or <br> Landscape Installation | 44 | 3 |  |  |  |  |
| HOR-123 | Landscape Maintenance | 44 | 3 |  |  |  |  |


| HOR-124 | Food Harvest | 44 | 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HOR-125* | Food Production in the Willamette Valley | 33 | 3 |  |  |  |  |
| HOR-126* | Landscape Water Features | 20 | 1 |  |  |  |  |
| HOR-127* | Landscape Lighting | 20 | 1 |  |  |  |  |
| HOR-128* | Landscape Stones \& Pavers | 20 | 1 |  |  |  |  |
| HOR-129* | Landscape Decks \& Fences | 20 | 1 |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { HOR-130 } \\ \text { Or } \\ \text { HOR-131 } \\ \hline \end{array}$ | Plant Propagation Theory or <br> Tree \& Shrub Pruning | 33-44 | 3 |  |  |  |  |
| HOR-134 | Herb Growing \& Gardening | 20 | 1 |  | REMOV |  |  |
| HOR-135 | Propagation of Edible Plants | 44 | 3 |  |  |  |  |
| HOR-136 | Organic Farming Practicum/Winter | 55 | 3 |  |  |  |  |
| HOR-141 | Organic Farming Practicum/Spring | 88 | 4 |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { HOR-142 } \\ \text { Or } \\ \text { HOR-145 } \end{array}$ | Greenhouse II or Turf Installation \& Maintenance | 44 | 2-3 |  |  |  |  |
| HOR-146 | Fruit \& Berry Growing | 44 | 3 |  |  |  |  |
| HOR-148 | Farm Equipment | 44 | 3 |  |  |  |  |
| HOR-211 | Native Plant Identification | 10 | 1 |  |  |  |  |
| HOR-212 | Flower Arranger's Garden/Fall | 44 | 2 |  |  |  |  |
| HOR-213* | Computer-Aided Landscape Design | 44 | 3 |  |  |  |  |
| HOR-215 | Herbaceous Perennials | 44 | 3 |  |  |  |  |
| HOR-220 | Plant Propagation/Fall | 44 | 3 |  |  |  |  |
| HOR-225 | Arboriculture I | 33 | 3 |  |  |  |  |
| HOR-229* | Introduction to Landscape Design | 44 | 3 | HOR-229 | Introduction to Landscape Design | 44 | 3 |
| HOR-232* | Commercial Floral Design | 44 | 3 |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { HOR-235 } \\ \text { Or } \\ \text { HOR-236 } \\ \hline \end{array}$ | Weed Identification or Insect Identification | 20 | 2 |  |  |  |  |
| HOR-239 | Tree Climber Training | 24 | 1 |  |  |  |  |
| HOR-241* | Nursery Management | 33 | 3 |  |  |  |  |
| HOR-244* | Environmental Landscape Design | 44 | 3 |  |  |  |  |
| HOR-246 | Organic Farming and Gardening | 44 | 2 |  |  |  |  |
| HOR-250 | Herb Growing and Gardening | 20 | 2 |  |  |  |  |
| HOR-251 | Herbal Products | 20 | 1 |  |  |  |  |
| HOR-252 | Kitchen Herbs | 20 | 1 |  |  |  |  |
| HOR-260 | Arboriculture II | 33 | 3 |  |  |  |  |
| HOR-261 | Tree Diagnostics | 44 | 2 |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { HOR-281 } \\ \text { Or } \\ \text { HOR-280 } \end{array}$ | Horticulture/CWE or Horticulture/CWE | 180 | 6 |  |  |  |  |


| And <br> HOR-282 | Or <br> Horticulture/CWE |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| *Offered alternate years |  |  |  |  |  |
| **Course may be waived with current CPR certification |  |  |  |  |  |
| TOTAL CURRENTCREDITS: | $97-101$ | TOTAL PROPOSED CREDITS: | REMOVE |  |  |


| College Contact | April Chastain | Telephone No. | 3055 |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: |
| E-Mail Address |  |  |  |  |  |
| Chief Academic Officer or <br> PTE Dean Signature |  | Fax No. |  |  |  |



## COMMUNITY COLLEGE PROGRAM AMENDMENT FORM

WORKFORCE DEVELOPMENT
WORKSOURCE OREGON
(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 |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\square$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| APPROVED Program Title <br> (For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232) | $\frac{\text { APPR ROVED }}{\text { CIP Code }}$ <br> (Include $7^{\text {th }} \& 8^{\text {th }}$ digits <br> used for occurs <br> reporting.) |  |  | APPROVED <br> Recognition Award | Current Credits |
| AAS Title: |  |  |  | Associate of Applied Science (AAS) Degree |  |
| Related Certificates: Human Resource Management Essentials CP |  |  |  | $\square$OPTION to AAS <br> Degree |  |
| Certificate Title: Within AAS Degree? $\quad$ Yes** $\downarrow$ No Human Resource Management | 52.1005 |  |  | $\square \begin{aligned} & \text { CC1 } \\ & \text { (45-60 credits) }\end{aligned}$ | 45-46 |

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

LAST AMENDMENT APPROVED ON 04/20/18

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |
| :---: | :---: | :---: |
| - New Program++ | 区 Curriculum Revision | $\square$ Revision in Program Credits |
| $\square$ Title Change for Program |  | Proposed Total Credits: $\quad 45-47$ |
| Proposed AAS Title: |  |  |
| Proposed OPTION Title: |  |  |
| Proposed Certificate Title: |  |  |
| $\square$ SUSPENSION of Program | Reason for Suspension: |  |
| Suspension Effective Date: |  |  |

[^3]


COMMUNITY COLLEGES AND WORKFORCE DEVELOPMENT WORKSOURCE OREGON

## 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 |  |
| :--- | :--- |
| $V$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | Human Resources |
| $\square$ Business \& Management | Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| APPROVED <br> Program Title |  |  |  | $\frac{\text { APPROVED }}{\text { Recognition Award }}$ | Current Credits |
| (For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232) | 6 -digit CIP | $\frac{z^{2}}{\text { digitit }}$ | $\frac{{\frac{g}{}{ }^{n}}_{\text {diaiti }}}{}$ |  |  |
| Parent AAS Title: Landscape Management AAS |  |  |  | $\square \mathrm{AAS}$ |  |
| Option Title** Arboriculture | 01.0605 | I | * | $\sqrt{\text { OPTION to AAS }}$ | 98-101 |
| Certificate Title: Within AAS Degree? $\quad$ Yes** $\quad$ No |  |  |  | $\square \begin{aligned} & \text { Certificate of } \\ & \text { Completion }\end{aligned}$ |  |

**Enter name of base degree in 'AAS Title' box
LAST AMENDMENT APPROVED ON 1/19/2018

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |
| :---: | :---: | :---: |
| New Program++Title Change for Program | $\square$ Curriculum Revision | $\checkmark$ Revision in Program Credits |
|  |  | Proposed Total Credits: 9 94-97 |
| 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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20[List only course(s) to be amended] |  |  |  |
| Course | Course Title | Hours | Credits | Course | Course Title | Hours | Credits |
| $1^{\text {st }}$ Year |  |  |  |  |  |  |  |
| Fall Term1 |  |  |  |  |  |  |  |
| HE-252** | First Aid/CPR/AED | 33 | 3 |  |  |  |  |
| HOR-115 | Horticulture Safety | 10 | 1 |  |  |  |  |
| HOR-226 | Plant Identification/Fall | 44 | 4 |  |  |  |  |
| HOR-236 | Insect Identification | 20 | 2 |  |  |  |  |
| MTH-050 or <br> MTH-065 <br> or higher | Technical Mathematics I or Algebra II or higher level of math | 44 | 4-5 |  | Move to Term |  |  |
|  |  |  |  | HOR-223 | Applied Plant Science | 44 | 4 |
| Winter Term2 |  |  |  |  |  |  |  |
| HOR-131 | Tree \& Shrub Pruning | 44 | 3 |  |  |  |  |
| HOR-216 | Integrated Pest Management | 33 | 3 |  |  |  |  |
| HOR-225 | Arboriculture I | 33 | 3 |  | Move to Term |  |  |
| HOR-230 | Equipment Operation \& Maintenance | 44 | 2 |  |  |  |  |
| HOR-237 | Disease Identification | 20 | 2 |  | Move to Term |  |  |
| HOR-239 | Tree Climber Training | 24 | 1 |  |  |  |  |
|  |  |  |  | HOR-222 | Horticultural Computer Applications | 20 | 2 |
|  |  |  |  | HOR-227 | Plant <br> Identification/Winter | 44 | 4 |
| Spring Term3 |  |  |  |  |  |  |  |
| BA-285 <br> or <br> COMM-100 | Human Relations in Business or <br> Basic Speech Communication | 33-44 | 3-4 |  |  |  |  |
| HOR-120 | Pesticide Laws \& Safety | 12 | 1 |  |  |  |  |
| HOR-228 | Plant Identification/Spring | 44 | 4 |  |  |  |  |
| HOR-261 | Tree Diagnostics | 44 | 2 |  | Move to Term |  |  |
| $\begin{array}{\|l} \hline \text { WR-121 } \\ \text { or } \\ \text { BA-214 } \\ \hline \end{array}$ | English Composition or Business Communications | 33-44 | 3-4 |  |  |  |  |
|  |  |  |  | HOR-140 | Soils | 33 | 3 |
| Summer Term4 |  |  |  |  |  |  |  |
| HOR-211 | Native Plant Identification | 10 | 1 |  |  |  |  |
| SPN-101 | First-Year Spanish I | 44 | 4 |  | MOVE TO ELECTI |  |  |
|  |  |  |  | HOR-280 | Horticulture/CWE (in Arboriculture field) | 90 | 3 |
| $2^{\text {nd }}$ Year |  |  |  |  |  |  |  |
| Fall Term5 |  |  |  |  |  |  |  |
| HOR-123 | Landscape Maintenance | 44 | 3 |  |  |  |  |
| HOR-223 | Applied Plant Science | 44 | 4 | Move to Term 1 |  |  |  |
| HOR-260 | Arboriculture II | 33 | 3 | Move to Term 6 |  |  |  |


| HOR-262 | Treework Practicum I | 66 | 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | HOR-225 | Arboriculture I | 33 | 3 |
|  |  |  |  | MTH-050 <br> or <br> MTH-065 <br> or higher | Technical Mathematics I <br> or <br> Algebra II <br> or higher level of math | 44 | 4-5 |
|  |  |  |  | -- | Arboriculture program electives |  | 3 |
| Winter Term6 |  |  |  |  |  |  |  |
| BA-119 | Project Management Practices | 22 | 2 |  |  |  |  |
| HOR-222 | Horticultural Computer Applications | 20 | 2 | Move to Term 2 |  |  |  |
| HOR-227 | Plant Identification/Winter | 44 | 4 | Move to Term 2 |  |  |  |
| HOR-229* or HOR-244* | Introduction to Landscape Design or Environmental Landscape Design | 44 | 3 | HOR-229 or HOR-244* | Introduction to Landscape Design or Environmental Landscape Design | 44 | 3 |
| -- | Arboriculture program electives |  | 5 | -- | Arboriculture program electives |  | 3 |
|  |  |  |  | HOR-237 | Disease Identification | 20 | 2 |
|  |  |  |  | HOR-260 | Arboriculture II | 33 | 3 |
| Spring Term7 |  |  |  |  |  |  |  |
| HOR-140 | Soils | 33 | 3 | Move to Term 3 |  |  |  |
| HOR-215 | Herbaceous Perennials | 44 | 3 |  |  |  |  |
| HOR-263 | Plant Health Care Practicum | 66 | 2 |  |  |  |  |
| HOR-280 | Horticulture/CWE (in Arboriculture field) | 90 | 3 | Move to Term 4 |  |  |  |
| -- | Arboriculture program electives |  | 4 | -- | Arboriculture program electives |  | 3 |
|  |  |  |  | HOR-261 | Tree Diagnostics | 44 | 2 |
|  |  |  |  | HOR-282 | Horticulture/CWE (in Arboriculture field) | 90 | 3 |
| Summer Term8 |  |  |  |  |  |  |  |
| HOR-281 | Horticulture/CWE (in Arboriculture field) | 180 | 6 |  |  |  |  |
| HOR-282 | Horticulture/CWE (in Arboriculture field) | 90 | 3 | Move to Term 7 |  |  |  |
| Arboriculture Program Electives |  |  |  |  |  |  |  |
| BA-101 | Introduction to Business | 44 | 4 |  |  |  |  |
| HOR-134 | Herb Growing \& Gardening | 20 | 1 | REMOVE |  |  |  |
| HOR-145 | Turf Installation \& Maintenance | 44 | 2 |  |  |  |  |
| HOR-146 | Fruit \& Berry Growing | 44 | 3 |  |  |  |  |
| HOR-213* | Computer-Aided Landscape Design | 44 | 3 |  |  |  |  |
| HOR-224 | Landscape Installation | 44 | 3 |  |  |  |  |
| HOR-229* <br> Or <br> HOR-244 | Introduction to Landscape Design or Environmental Landscape | 44 | 3 | $\begin{aligned} & \text { HOR-229 } \\ & \text { Or } \\ & \text { HOR-244 } \end{aligned}$ | Introduction to Landscape Design or Environmental Landscape | 44 | 3 |


|  | Design |  |  |  | Design |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HOR-231 | Irrigation Design | 44 | 3 |  |  |  |  |
| HOR-235 | Weed Identification | 20 | 2 |  |  |  |  |
| HOR-240 | Irrigation Practices | 44 | 3 |  |  |  |  |
| HOR-264 | Treework Practicum II (Aerial) | 66 | 2 |  |  |  |  |
| SPN-102 | First-Year Spanish II | 44 | 4 |  | REMOVE |  |  |
|  |  |  |  | SPN-101 | First-Year Spanish I | 44 | 4 |
| Catalog Notes |  |  |  |  |  |  |  |
| *Currently offered alternate years. |  |  |  |  |  |  |  |
| **Course may be waived with current CPR certification |  |  |  |  |  |  |  |
| TOTAL CURRENT CREDITS: |  |  | 98-101 | TOTAL PROPOSED CREDITS: |  |  |  |


| College Contact | April Chastain | Telephone No. | 3055 |  |
| :---: | :---: | :---: | :---: | :---: |
| E-Mail Address |  | Fax No. |  |  |
| Chief Academic Officer or PTE Dean Signature | er or | $3 a$ | Date | 12/11/18 |



## COMMUNITY COLLEGE PROGRAM AMENDMENT FORM

WORKFORCE DEVELOPMENT

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 |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | Health Services |
| $\square$ Arts, Information \& Communications | Human Resources |
| $\square$ Business \& Management | Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| APPROVEDProgram Title(For Official Program Title, refer to your directory at <br> hitp:/l/www.ode.state.or.us/searchlresults? ${ }^{2}(d=232$ ) |  |  |  | APPROVEDRecognition Award | Current Credits |
|  | 6 -digit CIP |  |  |  |  |
| AAS Title: |  |  |  | $\square$Associate of <br> Applied Science (AAS) Degree |  |
| Option Title** |  |  |  | $\square$OPTION to AAS <br> Degree |  |
| Certificate Title:WithinAAS Degree? $\quad$ Yes** $\downarrow$ <br> No <br> Geographic Information Systems <br> (GIS) Technology | 15.1102 |  |  | $\bar{V} \underset{\text { (45-60 credits) }}{\text { CC1 }}$ | 47 |

**Enter name of base degree in 'AAS Title' box
LAST AMFNDMENT APPROVFD ON $2 / 2 / 18$
LAST AMENDMENT APPROVED ON 2/2/18

| TYPE OF PROGRAM AMENDMENT (Check ALL That Apply) |  |  |
| :---: | :---: | :---: |
| $\square$ New Program++ | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |
| $\square$ Title Change for Program |  | Proposed Total Credits: 45 |
| Proposed AAS Title: |  |  |
| Proposed OPTION Title: |  |  |
| Proposed Certificate Title: |  |  |
| $\square$ 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 <br> [List in a Defined Sequence of Courses Format, e.g., Quarter-to-quarter mapping. <br> For a New Program, complete the Proposed Curriculum section only.] |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CURRENT CURRICULUM 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| First Term |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { GEO-100 } \\ & \text { Or } \\ & \text { GEO-130 } \end{aligned}$ | Introduction to Physical Geography or Introduction to Environmental Geography | 44 | 4 |  |  |  |  |
| GIS-101 | Maps and Geospatial Concepts | 44 | 2 |  |  |  |  |
| GIS-236 | Introduction to Programming for GIS | 66 | 3 |  |  |  |  |
| MTH-050 Or MTH-065 | ```Technical Mathematics I or Algebra II``` | 44 | 4 |  |  |  |  |
| WR-121 | English Composition | 44 | 4 |  | Move to Term 3 |  |  |
|  |  |  |  | GIS-281 | ArcGIS I | 60 | 3 |
| Second Term |  |  |  |  |  |  |  |
| GIS-201 | Introduction to Geographic Information Systems | 60 | 3 |  | REMOVE |  |  |
| GIS-205 | Cartography and Map Making | 33 | 3 |  |  |  |  |
| GIS-237 | Advanced Programming for GIS | 66 | 3 |  |  |  |  |
| GIS-281 | ArcGIS I | 60 | 3 |  | Move to Term 1 |  |  |
| GIS-286 | Remote Sensing | 60 | 3 |  | Move to Term 3 |  |  |
|  |  |  |  | GIS-240 | Geospatial Database Development and Management | 66 | 3 |
|  |  |  |  | GIS-282 | ArcGIS II | 66 | 3 |
|  |  |  |  | -- | Human Relations requirement (see page 82) |  | 3 |
| Third Term |  |  |  |  |  |  |  |
| GIS-232 | Data Collection \& Application | 66 | 3 | GIS-232 | Data Collection \& Application | 44 | 2 |
| GIS-280 | GIS/CWE | 108 | 3 |  |  |  |  |
| GIS-282 | ArcGIS II | 66 | 3 | Move to Term 2 |  |  |  |
| -- | Human Relations requirement (see page 82) |  | 3 | Move to Term 2 |  |  |  |
| -- | Program Elective |  | 3 | REMOVE |  |  |  |
|  |  |  |  | GIS-238 | GIS Web Mapping and Services | 44 | 2 |
|  |  |  |  | GIS-286 | Remote Sensing | 60 | 3 |
|  |  |  |  | WR-121 | English Composition | 44 | 4 |


| Program Electives |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| FRP-244 | Wilderness II: Basic Land Navigation (S-244) | 33 | 3 | REMOVE |  |
| GIS-238 | GIS Web Mapping and Services | 44 | 2 | Move to Term 3 |  |
| GIS-240 | Geospatial Database Development and Management | 66 | 3 | Move to Term 2 |  |
| USP-201 | Unmanned Aircraft Systems (UAS) Pilot | 66 | 3 | REMOVE |  |
| USP-205 | Unmanned Aircraft Systems (UAS) Applied Projects | 44 | 2 |  |  |
| USP-210 | Unmanned Aircraft Systems (UAS) Builder Lab | 33 | 1 |  |  |
| TOTAL CURRENTCREDITS: |  |  | 47 | TOTAL PROPOSED CREDITS: | 45 |


| College Contact | Manu | facturing Department | Telephone No. | 3318 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| E-Mail Address |  |  | Fax No. |  |  |
| Chief Academic Officer or PTE Dean Signature |  | $\text { Pitoine } R_{\text {inicn }}$ |  | Date | 12/27/18 |



## COMMUNITY COLLEGE PROGRAM AMENDMENT FORM

WORKFORCE DEVELOPMENT
WORKSOURCE OREGON
(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 |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\square$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| APPROVED Program Title <br> (For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232) | $\frac{\text { APPR ROVED }}{\text { CIP Code }}$ <br> (Include $7^{\text {th }} \& 8^{\text {th }}$ digits <br> used for occurs <br> reporting.) |  |  | APPROVED <br> Recognition Award | Current Credits |
| AAS Title: <br> Landscape Management | 1.0605 |  |  | $\begin{array}{\|l\|l} \hline \sqrt{\text { AAS }} \\ \text { (90-108 credits) } \end{array}$ | 99-102 |
| Option Title** Arboriculture AAS |  |  |  | $\square$OPTION to AAS <br> Degree |  |
| Related Certificates: <br> Landscape Practices Certificate |  |  |  | Certificate of Completion |  |

**Enter name of base degree in 'AAS Title' box LAST AMENDMENT APPROVED ON 1/19/2018

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |  |
| :---: | :---: | :---: | :---: |
| New Program++Title Change for Program | $\square$ Curriculum Revision | $\checkmark$ Revision in Program Credits |  |
|  |  | Proposed Total Credits: | 94-97 |
| Proposed AAS Title: |  |  |  |
| Proposed OPTION Title: |  |  |  |
| Proposed Certificate Title: |  |  |  |
| $\square$ SUSPENSION of Program | Reason for Suspension: |  |  |
| Suspension Effective Date: |  |  |  |


| CURRICULUM AMENDMENT <br> [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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| Landscape Management Associate of Applied Science Degree: $1^{\text {st }}$ Year |  |  |  |  |  |  |  |
| Fall Term1 |  |  |  |  |  |  |  |
| HOR-111 | Horticulture Practicum/Fall | 44 | 2 |  |  |  |  |
| HOR-115 | Horticulture Safety | 10 | 1 |  |  |  |  |
| HOR-123 | Landscape Maintenance | 44 | 3 |  | Move to Term 5 |  |  |
| HOR-226 | Plant Identification/Fall | 44 | 4 |  |  |  |  |
| HOR-236 | Insect Identification | 20 | 2 |  | Move to Term 5 |  |  |
| MTH-050 <br> Or <br> MTH-065 <br> or higher level math | Technical Mathematics I Or Algebra II or higher level math | 44 | 4-5 |  |  |  |  |
|  |  |  |  | HOR-223 | Applied Plant Science | 44 | 4 |
| Winter Term2 |  |  |  |  |  |  |  |
| HOR-131 | Tree \& Shrub Pruning | 44 | 3 |  |  |  |  |
| HOR-133 | Horticulture Practicum/Winter | 44 | 2 |  |  |  |  |
| HOR-216 | Integrated Pest Management | 33 | 3 |  |  |  |  |
| HOR-222 | Horticultural Computer Applications | 20 | 2 |  |  |  |  |
| HOR-227 | Plant Identification/Winter | 44 | 4 |  |  |  |  |
| $\begin{array}{\|l} \hline \text { HOR-229* } \\ \text { Or } \\ \text { HOR-244* } \end{array}$ | Introduction to Landscape Design or Environmental Landscape Design | 44 | 3 | HOR-229 <br> Or HOR-244* | Introduction to Landscape Design or Environmental Landscape Design | 44 | 3 |
| Spring Term3 |  |  |  |  |  |  |  |
| BA-285 <br> Or <br> COMM-100 | Human Relations in Business or Basic Speech Communication | 33-44 | 3-4 |  |  |  |  |
| HOR-112 | Horticulture Career Exploration | 24 | 2 |  |  |  |  |
| HOR-120 | Pesticide Laws \& Safety | 12 | 1 |  |  |  |  |
| HOR-140 | Soils | 33 | 3 |  |  |  |  |
| HOR-143 | Horticulture Practicum/Spring | 44 | 2 |  |  |  |  |
| HOR-228 | Plant Identification/Spring | 44 | 4 |  |  |  |  |
| Summer Term4 |  |  |  |  |  |  |  |
| HOR-281 Or HOR-280 and HOR-282 | Horticulture/CWE Or <br> Horticulture/CWE <br> And <br> Horticulture/CWE | 180 | 6 |  |  |  |  |
| Landscape Management Associate of Applied Science Degree: ${ }^{\text {nd }}$ Year |  |  |  |  |  |  |  |


| Fall Term5 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HOR-223 | Applied Plant Science | 44 | 4 | Move to Term 1 |  |  |  |
| HOR-224 | Landscape Installation | 44 | 3 |  |  |  |  |
| HOR-235 | Weed Identification | 20 | 2 | $\begin{aligned} & \text { HOR-235 } \\ & \text { Or } \\ & \text { HOR-236 } \\ & \hline \end{aligned}$ | Weed Identification Or <br> Insect Identification | 20 | 2 |
| SPN-101 | First-Year Spanish I | 44 | 4 |  |  |  |  |
| -- | Landscape Management program electives |  | 3 |  |  |  |  |
|  |  |  |  | HOR-123 | Landscape Maintenance | 44 | 3 |
| Winter Term6 |  |  |  |  |  |  |  |
| BA-101 | Introduction to Business | 44 | 4 | Move to Term 7 |  |  |  |
| BA-119 | Project Management Practices | 22 | 2 |  |  |  |  |
| HOR-230 | Equipment Operation \& Maintenance | 44 | 2 |  |  |  |  |
| HOR-231 | Irrigation Design | 44 | 3 |  |  |  |  |
| HOR-237 | Disease Identification | 20 | 2 |  |  |  |  |
| $\begin{aligned} & \hline \text { WR-101 } \\ & \text { Or } \\ & \text { WR-121 } \\ & \text { Or } \\ & \text { BA-214 } \end{aligned}$ | Communication Skills: Occupational Writing or English Composition or Business Communications | 33-44 | 3-4 |  |  |  |  |
| Spring Term7 |  |  |  |  |  |  |  |
| HE-252** | First Aid/CPR/AED | 33 | 3 | REMOVE |  |  |  |
| Choose two from the following (2 credits): |  |  |  |  |  |  |  |
| HOR-126* | Landscape Water Features | 20 | 1 |  |  |  |  |
| HOR-127* | Landscape Lighting | 20 | 1 |  |  |  |  |
| HOR-128* | Landscape Stones \& Pavers | 20 | 1 |  |  |  |  |
| HOR-129* | Landscape Decks \& Fences | 20 | 1 |  |  |  |  |
| HOR-145 | Turf Installation \& Maintenance | 44 | 2 |  |  |  |  |
| HOR-215 | Herbaceous Perennials | 44 | 3 |  |  |  |  |
| HOR-240 | Irrigation Practices | 44 | 3 |  |  |  |  |
|  |  |  |  | BA-101 | Introduction to Business | 44 | 4 |
| Landscape Management Program Electives |  |  |  |  |  |  |  |
| BA-223 | Principles of Marketing | 44 | 4 |  |  |  |  |
| HOR-126* <br> Or <br> HOR-127* <br> Or <br> HOR-128* <br> Or <br> HOR-129* | Landscape Water Features or Landscape Lighting or Landscape Stones \& Pavers or Landscape Decks \& Fences | 20 | 1 |  |  |  |  |
| HOR-134 | Herb Growing \& Gardening | 20 | 1 | REMOVE |  |  |  |
| HOR-142 | Greenhouse Crops/Bedding Plants | 44 | 3 | REMOVE |  |  |  |
| HOR-146 | Fruit \& Berry Growing | 44 | 3 |  |  |  |  |
| HOR-211 | Native Plant Identification | 10 | 1 |  |  |  |  |


| HOR-212 | Flower Arranger's Garden/Fall | 44 | 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HOR-213* | Computer-Aided Landscape Design | 44 | 3 |  |  |  |  |
| HOR-220 | Plant Propagation/Fall | 44 | 3 |  |  |  |  |
| HOR-225 | Arboriculture I | 33 | 3 |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { HOR-229* } \\ \text { Or } \\ \text { HOR-244* } \end{array}$ | Introduction to Landscape Design or Environmental Landscape Design | 44 | 3 | $\begin{array}{\|l} \hline \text { HOR-229 } \\ \text { Or } \\ \text { HOR-244* } \end{array}$ | Introduction to Landscape Design or Environmental Landscape Design | 44 | 3 |
| HOR-239 | Tree Climber Training | 24 | 1 |  |  |  |  |
| HOR-246 | Organic Farming and Gardening | 44 | 2 |  |  |  |  |
| HOR-260 | Arboriculture II | 33 | 3 |  |  |  |  |
| HOR-261 | Tree Diagnostics | 44 | 2 |  |  |  |  |
| WET-109 | Backflow Assembly Operation and Testing | 66 | 4 |  |  |  |  |
|  |  |  |  | HOR-290 | Special Topics in Horticulture | 66 | 3 |
| *Offered alternate years |  |  |  |  |  |  |  |
| **Course may be waived with current CPR certification |  |  |  | REMOVE |  |  |  |
| TOTAL CURRENTCREDITS: |  |  | 99-102 | TOTAL PROPOSED CREDITS: |  |  | 94-97 |


| College Contact | April Chastain | Telephone No. | 3055 |  |
| :---: | :---: | :---: | :---: | :---: |
| E-Mail Address |  | Fax No. |  |  |
| Chief Academic Officer or PTE Dean Signature | $5 \mathrm{~F}$ |  | Date | 12/11/18 |



## COMMUNITY COLLEGE PROGRAM AMENDMENT FORM

WORKFORCE DEVELOPMENT
WORKSOURCE OREGON
(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 |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\checkmark$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\square$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { APPROVED } \\ & \text { Program Title } \end{aligned}$ <br> (For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232) | ```APPROVED CIP Code (Include 7 }\mp@subsup{7}{}{\mathrm{ th }}&\mp@subsup{8}{}{\mathrm{ th }}\mathrm{ digits used for OCCURS reporting.)``` |  |  | APPROVED Recognition Award | Current Credits |
| AAS Title: |  |  |  | Associate of Applied Science (AAS) Degree |  |
| Option Title** |  |  |  | OPTION to AAS Degree |  |
| Certificate Title: Within AAS Degree? $\quad$ Yes** $\downarrow$ No Medical Assistant | 51.0801 |  |  | $\begin{array}{\|ll\|} \hline \sqrt{ } & \text { CC1 } \\ & \text { (45-60 credits) } \end{array}$ | 47 |

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

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |
| :---: | :---: | :---: |
| $\square$ New Program++ | $\checkmark$ Curriculum Revision | $\square$ Revision in Program Credits |
| $\square$ Title Change for Program |  | Proposed Total Credits: 49 |
| Proposed AAS Title: |  |  |
| Proposed OPTION Title: |  |  |
| Proposed Certificate Title: |  |  |
| $\square$ 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.
lis\i:\curriculum office<br>(02) curriculum committee\1-meetings\2018-19 meeting handouts\2019-01.18\all program changes\amendments\amendment medical assistant cc.docx\09202005

## 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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| Medical Assistant Certificate Prerequisite to Acceptance |  |  |  |  |  |  |  |
| MA-110 | Medical Terminology | 33 | 3 | MA-110 | Medical Terminology | 44 | 4 |
| $\begin{aligned} & \hline \text { WR-101 } \\ & \text { Or } \\ & \text { WR-121 } \end{aligned}$ | Communication Skills: Occupational Writing or English Composition | $\begin{array}{\|l} \hline 33- \\ 44 \end{array}$ | 3-4 | WR-101 <br> Or <br> WR-121 <br> (preferre <br> d) | Communication Skills: Occupational Writing or English Composition | $\begin{aligned} & \hline 33- \\ & 44 \end{aligned}$ | 3-4 |
| First Term |  |  |  |  |  |  |  |
| BI-120 Or BI-101 $\&$ BI-102 Or BI-231 $\&$ BI-232 $\&$ BI-233 | Introduction to Human Anatomy and Physiology or <br> General Biology; Cellular Biology <br> and <br> General Biology; Animal Systems <br> or <br>  <br> Physiology I <br> and <br> Human Anatomy \& Physiology II <br> and <br> Human Anatomy \& Physiology III | 66 | 4 |  |  |  |  |
| MA-112 | Medical Office Practices | 44 | 4 |  |  |  |  |
| MA-145 | Insurance \& Health Information Management | 44 | 4 | MA-145 | Insurance \& Health Information Management | 55 | 5 |
|  |  |  |  | PSY-101 | Human Relations | 33 | 3 |
| Second Term |  |  |  |  |  |  |  |
| MA-116 | Introduction to Medications | 44 | 4 |  |  |  |  |
| MA-117 | Clinical Lab Procedures I | 11 | 1 |  |  |  |  |
| MA-117L | Clinical Lab Procedures I Lab | 33 | 1 |  |  |  |  |
| MA-118 | Examination Room Techniques | 44 | 4 | MA-118 | Examination Room Techniques | 55 | 5 |
| MA-118L | Examination Room Techniques Lab | 33 | 1 |  |  |  |  |
| MTH-054 | Medication Calculations for Medical Assistants | 44 | 4 |  |  |  |  |
| PSY-101 | Human Relations | 33 | 3 |  | Move to Term 1 |  |  |
| Third Term (Weeks 1-5) |  |  |  |  |  |  |  |
| MA-115 | Phlebotomy for Medical Assistants | 11 | 1 |  |  |  |  |
| MA-115L | Phlebotomy for Medical Assistants Lab | 33 | 1 |  |  |  |  |


| MA-121 | Clinical Lab Procedures II | 11 | 1 |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| MA-121L | Clinical Lab Procedures II <br> Lab | 33 | 1 |  |  |  |
| PSY-215 | Introduction to <br> Developmental Psychology | 44 | 4 |  |  |  |
| Third Term <br> (Weeks 6-11) | Medical Assistant <br> Practicum | 253 | 9 |  |  |  |
| MA-119** |  |  |  |  |  |  |
| Catalog Notes |  |  |  |  |  |  |

**To meet graduation requirements in addition to successful completion of courses, the MA student is required to:

- Participate in an unpaid, supervised externship in an ambulatory care setting.
- Perform 20 hours of public health-related community service.
- Register for the CMA (AAMA) certification exam.

Note: All clinical/practicum courses are Pass/No Pass. All other courses are letter graded and must be passed with C or better. All related instruction courses may be taken prior to entering the MA program.

Core curriculum is sequential and may not be taken out of order. Core curriculum is intended to be completed over three consecutive terms in one academic year.

For the Certified Medical Assistant (CMA) exam, direct inquiries to: AAMA Certification Department at www.aama-ntl.org or by phone 800-228-2262.

| TOTAL CURRENTCREDITS: | 47 | TOTAL PROPOSED CREDITS: | 49 |
| :--- | :--- | :--- | :--- | :--- |


| College Contact | Karen Maynard | Telephone No. |  |
| :--- | :--- | :--- | :--- | :--- |
| E-Mail Address |  |  |  |
| Chief Academic Officer or <br> PTE Dean Signature | Fax No. |  |  |



## COMMUNITY COLLEGE PROGRAM AMENDMENT FORM

WORKFORCE DEVELOPMENT
WORKSOURCE OREGON
(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 |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\square$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| APPROVED Program Title <br> al Program Title, refer to your directory at w.ode.state.or.us/search/results/?id=232) | $\frac{\text { APPR ROVED }}{\text { CIP Code }}$ <br> (Include $7^{\text {th }} \& 8^{\text {th }}$ digits <br> used for occurs <br> reporting.) |  |  | APPROVED <br> Recognition Award | Current Credits |
| AAS Title: |  |  |  | Associate of Applied Science (AAS) Degree |  |
| Option Title** |  |  |  | $\square$OPTION to AAS <br> Degree |  |
| ```Certificate Title:WithinAAS Degree? - Yes** V No Organic Farming``` | 1.0304 |  |  | $\begin{aligned} & \hline \sqrt{V} \text { CC1 } \\ & (45-60 \text { credits }) \end{aligned}$ | 57-60 |

**Enter name of base degree in 'AAS Title' box LAST AMENDMENT APPROVED ON 1/19/2018

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |  |
| ---: | ---: | :--- | :--- |
| $\square$ New Program++ | $\square$ Curriculum Revision | $\checkmark$ Revision in Program Credits |  |
| $\square$ Title Change for Program |  | Proposed Total Credits: | 56-59 |
| Proposed AAS Title: |  |  |  |
| Proposed OPTION Title: |  |  |  |
| Proposed Certificate Title: |  |  |  |
| $\square$ 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.
 farming cc.docx\09202005
[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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| Fall Term |  |  |  |  |  |  |  |
| HOR-113 | Organic Farming Practicum/Fall | 55 | 3 |  |  |  |  |
| HOR-124 | Food Harvest | 44 | 3 |  |  |  |  |
| HOR-235 | Weed Identification | 20 | 2 |  |  |  |  |
| HOR-236 | Insect Identification | 20 | 2 |  |  |  |  |
| WR-101 Or WR-121 | Communication <br> Skills: Occupational <br> Writing <br> or <br> English Composition | $\begin{array}{\|l\|} \hline 33- \\ 44 \end{array}$ | 3-4 |  |  |  |  |
| -- | Organic Farming program electives |  | 2 |  |  |  |  |
| Winter Term |  |  |  |  |  |  |  |
| HOR-135 | Propagation of Edible Plants | 44 | 3 |  |  |  |  |
| HOR-136 | Organic Farming Practicum/Winter | 55 | 3 |  |  |  |  |
| HOR-216 | Integrated Pest Management | 33 | 3 |  |  |  |  |
| HOR-237 | Disease Identification | 20 | 2 |  |  |  |  |
| MTH-050 <br> Or <br> MTH-065 <br> Or higher | Technical <br> Mathematics I <br> or <br> Algebra II <br> or higher level math | $\begin{aligned} & 44- \\ & 55 \end{aligned}$ | 4-5 |  |  |  |  |
| Spring Term |  |  |  |  |  |  |  |
| HOR-120 | Pesticide Laws \& Safety | 12 | 1 |  | REM |  |  |
| HOR-140 | Soils | 33 | 3 |  |  |  |  |
| HOR-141 | Organic Farming Practicum/Spring | 88 | 4 |  |  |  |  |
| HOR-148 | Farm Equipment | 44 | 3 |  |  |  |  |
| -- | Organic Farming program electives |  | 4 |  |  |  |  |
| Summer Term |  |  |  |  |  |  |  |
| BA-285 Or COMM-100 | Human Relations in Business or Basic Speech Communication | $\begin{aligned} & 33- \\ & 44 \end{aligned}$ | 3-4 |  |  |  |  |
| HOR-146 | Fruit \& Berry Growing | 44 | 3 |  |  |  |  |
| HOR-284 | Organic Farming Campus Farm/CWE | 108 | 3 |  |  |  |  |
| HOR-285 | Organic Farming/CWE | 90 | 3 |  |  |  |  |
| Organic Farming Program Electives |  |  |  |  |  |  |  |
| BA-101 | Introduction to Business | 44 | 4 |  |  |  |  |


| BA-223 | Principles of Marketing | 44 | 4 |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| HOR-125* | Food Production in the <br> Willamette Valley | 33 | 3 |  |  |  |  |
| HOR-134 |  <br> Gardening | 20 | 1 |  | REMOVE |  |  |
| HOR-231 | Irrigation Design | 44 | 3 |  |  |  |  |
| HOR-240 | Irrigation Practices | 44 | 3 |  |  |  |  |
| HOR-246 | Organic Farming and <br> Gardening | 44 | 2 |  |  |  |  |
| HOR-250 | Herb Growing and <br> Gardening | 20 | 2 |  |  |  |  |
| HOR-251 | Herbal Products | 20 | 1 |  |  |  |  |
| HOR-252 | Kitchen Herbs | 20 | 1 |  |  |  |  |
| *Offered alternate years |  |  |  |  |  |  |  |
| TOTAL CURRENTCREDITS: |  |  |  |  |  |  |  |




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 |  |
| :--- | :--- |
| $\square$ Ag, Food \& Natural Resource Systems | $\square$ Health Services |
| $\square$ Arts, Information \& Communications | $\square$ Human Resources |
| $\square$ Business \& Management | $\square$ Industrial \& Engineering Systems |


| PROGRAM INFORMATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| APPROVED Program Title <br> (For Official Program Title, refer to your directory at http://www.ode.state.or.us/search/results/?id=232) | APPROVEDCIP Code(Include $7^{\text {th }} \& 8^{\text {th }}$ <br> used figits <br> reporting. <br> recurs |  |  | APPROVED <br> Recognition Award | Current Credits |
| AAS Title: |  |  |  | Associate of Applied Science (AAS) Degree |  |
| Option Title** |  |  |  | $\square$OPTION to AAS <br> Degree |  |
| Certificate Title:WithinAAS Degree? $\quad$ Yes** $\downarrow$ No Retail Management | 52.1803 |  |  | $\checkmark$SSC Statewide <br> Certificate <br> (12-30 credits) | 29-30 |

**Enter name of base degree in 'AAS Title' box LAST AMENDMENT APPROVED ON 5/19/17

| TYPE OF PROGRAM AMENDMENT <br> (Check ALL That Apply) |  |  |
| :---: | :---: | :---: |
| $\square$ New Program++ | $\square$ Curriculum Revision | $\square$ Revision in Program Credits |
| $\square$ Title Change for Program |  | Proposed Total Credits: |
| Proposed AAS Title: |  |  |
| Proposed OPTION Title: |  |  |
| Proposed Certificate Title: |  |  |
| $\square$ 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.
lis\i:\curriculum office<br>(02) curriculum committee\1-meetings\2018-19 meeting handouts\2019-01.18\all program changes\amendments\amendment retail management certificate.docx\09202005

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 2018-19 <br> [List entire curriculum as last approved) |  |  |  | PROPOSED CURRICULUM 2019-20 <br> [List only course(s) to be amended] |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Course | Title | Hours | Credits | Course | Title | Hours | Credits |
| Fall Term |  |  |  |  |  |  |  |
| BA-131 | Introduction to Business Computing | 44 | 4 |  |  |  |  |
| BA-206 | Management Fundamentals | 44 | 4 |  |  |  |  |
| BA-223 | Principles of Marketing | 44 | 4 |  |  |  |  |
| Winter Term |  |  |  |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { BA-214 } \\ \text { Or } \\ \text { BA-205 } \end{array}$ | Business Communications or Business Communications with Technology | 33-44 | 3-4 |  |  |  |  |
| BA-224 | Human Resource Management | 44 | 4 |  |  |  |  |
| BA-285 | Human Relations in Business | 44 | 4 |  |  |  |  |
| Spring Term |  |  |  |  |  |  |  |
| BA-217 | Budgeting for Managers | 33 | 3 |  |  |  |  |
| BA-249 | Retailing | 33 | 3 |  |  |  |  |
| Catalog Notes |  |  |  |  |  |  |  |
| Note: This certificate is designed to be completed in less than one year. |  |  |  |  |  |  |  |
| Most courses in this program can be applied to partially satisfy elective requirements in the Business Management certificate. |  |  |  |  |  |  |  |
| TOTAL CURRENTCREDITS: |  |  | 29-30 | TOTAL PROPOSED CREDITS: |  |  |  |



| Program |
| :--- |
| Horticulture AAS |
| Horticulture CC |
| Landscape Management AAS |
| Landscape Management AAS - Arboriculture Option |
| Landscape Practices CC |
| Organic Farming CC |
| Plant Health Management CPCC |

## Horticulture

## Associate of Applied Science Degree

PROGRAM CODE: AAS.HORT1

Upon successful completion of this program, students should be able to:
o demonstrate a broad range of skills in the production and maintenance of plants, including: safe use of tools and equipment, propagation from seeds and cuttings, landscape maintenance activities, growing in a greenhouse environment, and vegetable bed preparation;
o identify common woody plants in the landscape;
o recognize and evaluate key pests and propose solutions based on IPM strategies;
o use a basic understanding of plant biology and soil science to make sound decisions in the production and maintenance of plants;
o display effective decision making, time management and project management skills in the horticulture industry;
o communicate effectively with co-workers and customers through speaking, writing and computer technology.
o pass the ODA Pesticide Laws \& Safety exam, and an applicator exam.

## Horticulture

## Certificate

PROGRAM CODE: CC.HORT

Upon successful completion of this program, students should be able to:
o demonstrate a broad range of skills in the production and maintenance of plants, including: safe use of tools and equipment, propagation from seeds and cuttings, landscape maintenance activities, growing in a greenhouse environment, and vegetable bed preparation;
o identify common woody plants in the landscape;
o implement IPM strategies in the horticulture industry;
o use a basic understanding of plant biology and soil science to make sound decisions in the production and maintenance of plants;
o effectively communicate with co-workers and customers through speaking, writing, and computer technology.

- pass the ODA Pesticide Laws \& Safety exam.


## Landscape Management

Associate of Applied Science Degree
PROGRAM CODE: AAS.LANDSCAPEMGMT

Upon successful completion of this program, students should be able to:
o demonstrate competency in sustainable landscape maintenance and installation activities, including: safe use of tools and equipment, operation of irrigation systems, pruning and training techniques, turf maintenance, hardscape installation and reading/installing from a design plan;
o identify common woody and herbaceous plants in the landscape;
o recognize and evaluate key pests in the landscape and propose solutions based on IPM strategies;
o use a basic understanding of plant biology and soil science to make sound decisions in the design and maintenance of landscapes;
o display effective decision making, time management and project management skills in the landscape industry environment;
o effectively communicate with co-workers and customers through speaking, writing and computer technology.
o pass the ODA Pesticide Laws \& Safety exam, and an applicator exam;
o pass NALP's Landscape Industry Certified Technician Exterior test for Ornamental Maintenance.

## Landscape Management, Arboriculture Option Associate of Applied Science Degree

PROGRAM CODE: AAS.LANDMGMTARBOR

This degree prepares students for entry-level positions in commercial arboriculture and urban forestry, while enhancing their ability to move into management positions. Students will gain practical expertise in the establishment and caring for landscape trees, including planting, pruning, pest management, tree diagnostics, and operating industry standard equipment. Additionally, students will learn skills in communicating with customers, both orally and through report writing. Students completing this program and some additional work experience, would be qualified to sit for the International Society of Arboriculture's Certified Arborist exam.

Sustainable practices, such as the use of Integrated Pest Management, low water use landscapes, and techniques that protect and care for the soil are emphasized throughout the program. Students use industry standard equipment and practices in the care of CCC's trees and shrubs.
Students may begin this program any term, but some courses have prerequisites, which must be taken first. Following the course offerings in the order listed is not required, but will allow for completion in a two year period.

## PROGRAM OUTCOMES

Upon successful completion of this program, students should be able to:
o demonstrate competency with the use of standard arboriculture equipment, including: climbing gear, chainsaw, chipper, hydraulic sprayer, truck and trailer;
o identify common woody and herbaceous plants in the landscape;
o recognize and identify key biotic and abiotic disorders in trees;
o perform site assessments, including: plant health inspections of key plants, hazard tree identification, and water audit interpretations;
o effectively communicate with co-workers and customers through speaking, report writing and computer technology.
o-pass the International Society of Arboriculture's Certified Arborist exam;
0 pass the ODA Pesticide Laws \& Safety exam, and the ODA Ornamental \& Turf Insecticide/Fungicide exam.

## Landscape Practices

Certificate
PROGRAM CODE: CC.LANDSCAPEPRAC

Upon successful completion of this program, students should be able to:
o demonstrate competency in sustainable landscape maintenance and installation activities, including: safe use of tools and equipment, operation of irrigation systems, pruning and training techniques, turf maintenance, hardscape installation and reading/installing from a design plan;
o identify common woody and herbaceous plants in the landscape;
o recognize key pests in the landscape and follow IPM strategies;
o use a basic understanding of soil science to make sound decisions in the maintenance of landscapes.
0 pass the ODA Pesticide Laws \& Safety exam.

## Organic Farming

Certificate

## PROGRAM CODE: CC.ORGANICFARM

This certificate focuses on an ecological systems approach to sustainable farming principles and practices which are suitable for local urban market farming. Many classes have a lab component, which provides students with the opportunity to gain a practical, working knowledge of small-scale, organic farming and marketing practices. Production methods for vegetables, grain, and fruit and aquaponics are covered. Students may begin this program any term.

## PROGRAM OUTCOMES

Upon successful completion of this program, students should be able to:
o apply sustainable, organic methods in the planning, planting, management and harvesting of food crops;
o select and properly use farm equipment that is appropriate for a given scale and system of farming;
o implement organic IPM strategies in orchards and on small scale vegetable and berry farms;
o use a basic understanding of soil science and irrigation systems to make ecologically sound decisions in the production of food crops;
o write a business plan and identify the various regulations that impact an organic food producer;
o effectively communicate with co-workers and customers through speaking, writing and computer technology;
0 pass the ODA Pesticide Laws \& Safety exam.

## Plant Heath Management <br> Career Pathway Certificate

```
PROGRAM CODE: CC.PLANTHEALMGT
```

Upon successful completion of this program, students should be able to:
o pass the ODA Pesticide Laws \& Safety exam, and a Commercial Pesticide Applicator exam;
o recognize and evaluate key pests in the landscape and propose solutions based on IPM strategies.


[^0]:    ++If new program is an additional award for an existing degree or certificate, complete 'Program Information' section for existing program.

[^1]:    ++If new program is an additional award for an existing degree or certificate, complete 'Program Information' section for existing program.

[^2]:    ++If new program is an additional award for an existing degree or certificate, complete 'Program Information' section for existing program.

[^3]:    ++If new program is an additional award for an existing degree or certificate, complete 'Program Information' section for existing program.

