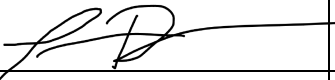



COVER SHEET FOR ALL CURRICULUM PROPOSALS

| Check all Campuses making this proposal. | ALL Proposals | New Programs/Courses | | |
|--|---------------|---|---|--|
| | PC Signature | CEO Signature <i>(CEO signature needed for all <u>new</u> programs and any new courses that have new facility/resource costs associated with the course)</i> | New Program Approval Supplement B <i>(“Budget” included for each campus)</i> | New Program Approval Section 6 <i>(“Cost Effectiveness and Resources” included for each campus)</i> |
| | ACC | | | |
| | CCC | | | |
| | GWCC | | | |
| | HCC | | | |
| | MCC | | | |
| | MxCC | | | |
| | NVCC | | | |
| | NWCC | | | |
| | NCC | | | |
| | QVCC | | | |
| | TRCC |  |  | |
| | TxCC | | | |

Type of Proposal.

| | |
|---|---|
| | NEW Program (<i>degree</i>) |
| x | NEW Certificate |
| | NEW Course |
| | |
| | MODIFICATION of an Aligned Program (<i>degree</i>) |
| | MODIFICATION of an Aligned Certificate |
| | MODIFICATION of an Aligned Course |
| | |
| | DISCONTINUATION of a Program (<i>degree</i>) |
| | DISCONTINUATION of a Certificate |
| | DISCONTINUATION of a Course |
| | |
| | OTHER (<i>please describe</i>): |

Directions: Please provide the date, name of originator, title, and campus below.

| | |
|---|--|
| Date: 2/12/24 | Primary Campus of Originator: CTState Community College-Three Rivers |
| Name of Originator: Jim Doran Erin Sullivan | Title of Originator: Faculty- Engineering Science Director of Workforce Development & Continuing Education |

Certificate Name: (Note the **LEGACY** code, number, and equivalency, if this certificate was previously offered at one or more of our twelve campuses.)
Mechanical/Electrical Manufacturing Basics

Certificate Type:
Credit

Certificate Description:
This certificate will provide a college level certificate to students interested in the Electric Boat Marine Draft Person Apprentice Program. This furthers our goal of being responsive to industry requests while maintaining academic integrity. This program was developed in response to Connecticut manufacturers' needs for a highly skilled workforce to match the needs of regional industry and provides a college credential for current and potential employees at the completion of a list of requested existing credit level courses. Since this certificate is specific to Electric Boat, it is tailored to their needs. The student who completes this certificate program has a choice to pursue employment or to matriculate in an associate degree program..

Certificate Descriptors: For example: General Education course, Clinical, Lab, Studio, Distance Learning, Seminar, Practicum.

A combination of on line and on ground lectures and labs

Certificate Learning Outcomes: Upon successful completion of all certificate requirements, graduates will be able to:

Apply the ability to use appropriate mathematical and computational skills needed for manufacturing and engineering technology applications (both tracks)

Demonstrate the ability to think critically and identify, evaluate and solve complex technical and non-technical problems (both tracks) Demonstrate creativity in designing problem solutions, and conduct and interpret experimental data and outcomes (both tracks)

Demonstrate proficiency on the operation of common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments (mechanical track)

Understand the effects of processing (including heat treatment) on the properties of engineering materials and demonstrate an ability to perform and interpret data from standard materials tests, e.g. tensile, hardness, etc (mechanical track)

Demonstrate the ability to perform static equilibrium analyses on structures and simple machines (mechanical track)

Apply electrical circuits and system concepts and perform accurate electrical measurements using a variety of electrical test instruments (electrical track)

| Certificate Requirements (16-30 credits) | | | | |
|---|--|---------------------|------------------------------|-----------------------------|
| Course Number | Course Name | # of Credits | Prerequisite Course # | Corequisite Course # |
| Electrical Track | | | | |
| MAT1600 | Pathways to Calculus: College Algebra | 3 | none | none |
| MAT1610 | Precalculus | 4 | MATH1600 | none |
| EET1010 | DC Circuits | 4 | none | MATH1600 or MATH1610 |
| EET1014 | AC Circuits | 4 | EETA 1010 | MATH1610 |
| MFG 1004 | Manufacturing Processes | 4 | none | none |
| EGR 1120 | Engineering Drawing Specs | 3 | none | none |
| | Total | 22 | | |
| Mechanical Track | | | | |
| MAT 1600 | Pathways to Calculus: College Algebra | 3 | none | none |
| MAT 1610 | Precalculus | 4 | MATH1600 | none |
| PHYS 1201 | General Physics | 4 | MATH1610 | none |
| EGR 1118 | Material Science | 3 | MATH1010 | MATH1010 |
| MFG 1004 | Manufacturing Processes | 4 | none | none |
| EGR 1120 | Engineering Drawing Specs | 3 | none | none |
| | Total | 21 | | |
| | Certificate Requirement Credits (16-30 credits) | | | |

| | | |
|------------------------|-------------------|-------------|
| GOVERNANCE BODY | SIGNATURES | DATE |
|------------------------|-------------------|-------------|

CT State Community College - New Certificate Proposal

| | | |
|-------------------------------------|-------------------|------------|
| Statewide Discipline Council | <i>P. J. K. -</i> | 2024-04-06 |
| School Area Curriculum Council | | |
| Curriculum Congress | | |
| School Area Academic Dean | | |
| CT State Provost | | |
| *Campus CEO (if applicable) | | |
| *CT State President (if applicable) | | |