EDDT - 1600 - CNC Machining

2022-2023 Course Proposal - NEW

Read Before You Begin

FILL IN all fields required marked with an *.

ATTACH supporting documentation and complete the Acknowledgement section.

LAUNCH proposal by clicking Validate and Launch at the top. Once the proposal has been launched, approve the proposal to move the proposal forward in the workflow.

This course proposal form is to create a NEW a course, if you need to REVISE, SUSPEND, or DISCONTINUE a course please use the course proposal form designed for that purpose.

WHEN proposing a new course prefix or course number, please contact the Curriculum Coordinator to discuss availability of prefix and/or number.

Course Curriculum Outline

New course to combine MCCT 1600 and MCCT 1610 into one course. Change the prefix from MCCT to EDDT to clarify the program. This replaces a proposal in the revision category. The only changes between this entry and the original revision proposal is response to comments.

Division*

Natural Sciences & Engineering

Prefix*

EDDT

Number* 1600

Course Title* CNC Machining

Long Course Title CNC Programming and CNC Machining Theory and Lab

of CNC lathes and mills. Lab experience is included.

Basic CNC machine shop theory including G and M programming, operation, and performance

| Frerequisite(s). | None | | |
|--|---|-------------------------------------|--|
| Recommended Prerequisite(s):* | EDDT 1500 | | |
| Corequisite(s):* | None | | |
| Recommended Corequisite(s):* | None | | |
| Other Registration Restrictions* | None | | |
| Semesters Taught:* | Fall ✓ Spring Summer | | |
| SLCC Equivalent Course(s):* | This course is the combined equivalent (lab component). Those original course | , | component) and MCCT 1610 |
| Can this Course be Repeated for Additional Credit?* | | If Yes, What's the Repeat Limit? | |
| Is there an Equivalent (or Potentially Equivalent) Course at other USHE Institution(s)?* | No | If Yes, Explain: | This course is similar to WSU's MFET 2440. |
| General Educ | ation Designation | | |
| Is this Course Designed for General Education?* | Yes No | | |
| If yes, Indicate General Education Designation: | Lifelong Wellness (LW) Com Fine Arts (FA) Fine Arts Dive Humanities (HU,DV) Life Sc Physical Sciences (PS) Phys Social Sciences (SS) Social | | |

Course Hours

| Fill out the appropriate section accordi | ing to your response above: | |
|--|-----------------------------|--|
| <u>Credit Hour Course</u> | | |
| Credit Hours: 3 | | |
| Contact Lecture: 2 | Contact Lab/Other: 3 | |
| Total Contact Hours: 5 | | |
| Clock Hour Course | | |
| Clock Hours: | Billable Hours: | |
| Total Contact Hours: | | |
| | | |

Course Learning Outcomes

Does this Course use • Credit Hours Clock Hours

Credit Hours or Clock

Hours?*

<u>SLCC College-Wide & General Education Student Learning Outcomes.</u>

Complete the applicable fields below with the course-level student learning outcomes and indicate how they align to the SLCC College-Wide outcome in the text area.

Course-level learning outcomes may fit in several College-wide outcomes; select the best area(s) based upon the primary purpose of the course learning outcome. If the course does not include one or more of the College-wide outcomes, please leave text area blank.

See <u>SLCC Assessment webpage</u> for additional details about College-Wide Student Learning Outcomes.

Acquire Substantive Knowledge

Students will demonstrate general safety precautions relating to machine shop procedures.

Students will explain how CNC machines are used in Industry including Types of Machine Tools, Input and Storage Media, Types of System Controls, Cutting Tools, and Holding Fixtures.

Students will demonstrate procedures required to setting up and running "3 axis CNC mills" and "2 axis CNC lathes".

Students will demonstrate use of manual CNC Programming, including Linear and Circular Interpolation, Tool and Machine Offsets, and Subroutines.

Students will describe the scope as well as the limits of parts designed to be fabricated using CNC machining.

Students will demonstrate use of Computer Aided Manufacturing (CAM) using Feature CAM software.

Communicate Effectively

None

Develop Quantitative Literacies

Students will describe the scope as well as the limits of parts designed to be fabricated using CNC machining.

Think Critically & Creatively

Students will demonstrate use of manual CNC Programming, including Linear and Circular Interpolation, Tool and Machine Offsets, and Subroutines.

Develop Civic Literacy & Become a Community Engaged Learner

None

Work in a Professional & Constructive Manner

None

Develop Computer & Information Literacy

Students will demonstrate use of manual CNC Programming, including Linear and Circular Interpolation, Tool and Machine Offsets, and Subroutines.

Students will demonstrate use of Computer Aided Manufacturing (CAM) using Feature CAM software.

Develop Lifelong Wellness

None

ACKIIOTTICAGCIIICIILO AIIA ALLACIIIICIILO

Please attach any required files by navigating to the right side menu and clicking "Files". Record when this has been completed in the checkbox, below.

REMINDER: Revisions made to the *Course Learning Outcomes* will require an updated syllabus be completed and attached to this proposal.

Acalog Owner

Attached* I acknowledge that all areas of this proposal are complete as required for the purpose of this proposal.

✓ A representative syllabus is attached.

▼ The General Education Rationale is attached if required.

Acalog Course OID:

Steps for EDDT - 1600 - CNC Machining

Status: Approved Originator **Participants ⊘Jonathan Barnes** 2/7/2022 5:08 PM Status: Approved Associate Dean/Chair **Participants ⊘Jonathan Barnes** 2/7/2022 5:08 PM Status: Approved **Curriculum Technician Participants ⊘Janice Rogers** 2/8/2022 9:51 AM Status: Force Approved **Analysis & Implementation Council Review Participants** ▲ Analysis & Implementation Council Katrina Green * Rachel Lewis * OBryce Powell * ▲ Additional Participants Status: Force Approved **Originator Response Participants Jonathan Barnes ⊘**Bryce Powell (System Administrator) 2/9/2022 12:53 PM

School Curriculum Committee

Status: Approved

Participants

▲ School Curriculum Committee

⊘Janice Rogers * 2/9/2022 12:53 PM

Senate Curriculum Committee

Status: Force Approved

Participants

▲ Senate Curriculum Committee

2022-02-14 SenateCurr Proposals

Jenny Huynh *

Rachel Lewis *

Rebecca Lowell *

OBryce Powell *

▲ Additional Participants

Faculty Senate

Status: Force Approved

Participants

▲ Faculty Senate

2022-03-21 FacSenate CurriculumProposals

Jenny Huynh *

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OBryce Powell *

▲ Additional Participants

Provost

Status: Force Approved

Participants

ORachel Lewis

Jason Pickavance

Clifton Sanders

⊘Rachel Lewis (System Administrator)

3/22/2022 1:38 PM

Published to Catalog

Status: Force Approved

Participants

Rachel Lewis

■ **OCourtney Wood** 5/6/2022 2:56 PM

⊘*Katrina Green (System Administrator)* 5/31/2022 10:05 AM

Attachments for EDDT - 1600 - CNC Machining

CCO_EDDT_1600_Syllabus.docx (uploaded by Jonathan Barnes, 2/7/2022 5:06 pm)