

EDDT - 1050 - Engineering Graphics - 3D CAD

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

Rationale*

See previous proposal EDDT-1050 REVISED. Asked to change proposal to NEW.

Updated Title to comply with character limitations

Course number change from 2600 to 1050. This is being done because this course is considered a lower level or entry level course. Utilizing 2600 has potential students thinking its a second year course.

All learning outcomes remain the same.

EDDT-1050 (Formerly EDDT-2600) is changed slightly to be hybrid Competency-Based Education (CBE) format to provide students with flexible scheduling and self-paced learning.

Division*

Natural Sciences & Engineering

Prefix*

EDDT

Number* 1050

Course Title* Engineering Graphics - 3D CAD

Long Course Title Engineering Graphics – Introduction, Principles & Applications using 3D CAD Software

Course Description* Comprehensive applications of 3D CAD-based national (ANSI/ASME) & international (ISO) graphics standards, including coordinate & geometric dimensioning and tolerancing. Introduction to Engineering & Technical design solutions related to STEM industries.

Prerequisite(s):* none

Recommended Prerequisite(s):* EDDT 1010

Corequisite(s):* none

Recommended Corequisite(s):* none

Other Registration Restrictions* none

Semesters Taught:* Fall
 Spring
 Summer

SLCC Equivalent Course(s):* EDDT 2600, catalog year 2020-2021, to be discontinued

Can this Course be Repeated for Additional Credit?* Yes
 No

If Yes, What's the Repeat Limit?

Is there an Equivalent (or Potentially Equivalent) Course at other USHE Institution(s)?* Yes
 No

If Yes, Explain: WSU PDD1010

General Education Designation

Is this Course Designed for General Education?* Yes
 No

**If yes, Indicate
General Education
Designation:**

- Composition (EN) Quantitative Literacy (QL) American Institutions (AI)
 Lifelong Wellness (LW) Communication (CM) International Global (IG)
 Fine Arts (FA) Fine Arts Diversity (FA,DV) Humanities (HU)
 Humanities (HU,DV) Life Sciences (LS) Life Sciences Diversity (LS,DV)
 Physical Sciences (PS) Physical Sciences Diversity (PS,DV)
 Social Sciences (SS) Social Sciences Diversity (SS,DV)
 Human Relations (HR) Quantitative Studies (QS)

Course Hours

**Does this Course use
Credit Hours or Clock
Hours?*** Credit Hours Clock Hours

Fill out the appropriate section according to your response above:

Credit Hour Course

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

[SLCC College-Wide & General Education Student Learning Outcomes.](#)

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 [SLCC Assessment webpage](#) for additional details about College-Wide Student Learning Outcomes.

Acquire Substantive Knowledge

Students will be able to create & fully constrain sketches using both dimensional and geometric constraints, which convey engineering intent.

Students will be able to create 3D model features from sketches using extrude, revolve, cut extrude, sweep loft etc.

Students will be able to create 3D model based features using holes, fillets, blends, chamfers, shell.

Students will be able to create multiple 3D model based features using patterns, arrays and mirror techniques.

Students will be able to create multiple configurations, both manually & using design tables.

Students will demonstrate ability to analyze and determine design intent.

Students will be able to create 3D CAD solid model components of basic complexity to semi complex mechanical components.

Students will be able to create 3D solid model assemblies from multiple different components using dimensional, geometric and mechanical mating constraints.

Students will be able to create, read, and understand engineering drawings composed of multiple views with standard dimensioning & tolerance nomenclature for both national (ANSI/ASME) and international (ISO) standards.

Students will be able to measure and analyze 3D solid models, i.e., mass, centroid, distance.

Communicate Effectively

Students will be able to create & fully constrain sketches using both dimensional and geometric constraints, which convey engineering intent.

Students will be able to create, read, and understand engineering drawings composed of multiple views with standard dimensioning & tolerance nomenclature for both national (ANSI/ASME) and international (ISO) standards.

Develop Quantitative Literacies

Students will be able to create & fully constrain sketches using both dimensional and geometric constraints, which convey engineering intent.

Students will be able to measure and analyze 3D solid models, i.e., mass, centroid, distance.

Think Critically & Creatively

Students will be able to create 3D model features from sketches using extrude, revolve, cut extrude, sweep loft etc.

Students will demonstrate ability to analyze and determine design intent.

Students will be able to measure and analyze 3D solid models, i.e., mass, centroid, distance.

**Develop Civic Literacy
& Become a
Community Engaged
Learner**

**Work in a
Professional &
Constructive Manner**

Students will demonstrate ability to analyze and determine design intent.

Students will be able to create, read, and understand engineering drawings composed of multiple views with standard dimensioning & tolerance nomenclature for both national (ANSI/ASME) and international (ISO) standards.

**Develop Computer &
Information Literacy**

Students will be able to create & fully constrain sketches using both dimensional and geometric constraints, which convey engineering intent.

Students will be able to create 3D model features from sketches using extrude, revolve, cut extrude, sweep loft etc.

Students will be able to create 3D model based features using holes, fillets, blends, chamfers, shell.

Students will be able to create multiple 3D model based features using patterns, arrays and mirror techniques.

Students will be able to create 3D CAD solid model components of basic complexity to semi complex mechanical components.

Students will be able to create 3D solid model assemblies from multiple different components using dimensional, geometric and mechanical mating constraints.

Students will be able to measure and analyze 3D solid models, i.e., mass, centroid, distance.

**Develop Lifelong
Wellness**

Acknowledgements and Attachments

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 - 1050 - Engineering Graphics - 3D CAD

Originator	<i>Status: Approved</i>
Participants ■  Rex Richards 11/17/2021 9:26 PM	
▼	
Associate Dean/Chair	<i>Status: Approved</i>
Participants  Jonathan Barnes 11/18/2021 4:48 PM	
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Curriculum Technician	<i>Status: Approved</i>
Participants  Janice Rogers 11/19/2021 1:18 PM	
▼	
Analysis & Implementation Council Review	<i>Status: Force Approved</i>
Participants ▲ Analysis & Implementation Council 2021-11-19 AIC CurriculumProposals Katrina Green * Rachel Lewis * ■  Bryce Powell * 11/24/2021 10:47 AM ▲ Additional Participants	
▼	
Originator Response	<i>Status: Approved</i>
Participants ■  Rex Richards 12/1/2021 12:11 PM	
▼	
School Curriculum Committee	<i>Status: Approved</i>

Participants

▲ **School Curriculum Committee**
2022-01-14 SME Curriculum

Janice Rogers * 1/24/2022 12:11 PM

Senate Curriculum Committee

Status: *Force Approved*

Participants

▲ **Senate Curriculum Committee**
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Faculty Senate

Status: *Force Approved*

Participants

▲ **Faculty Senate**
2022-03-21 FacSenate CurriculumProposals

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Provost

Status: *Force Approved*

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Rachel Lewis

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Rachel Lewis (System Administrator)
3/22/2022 1:37 PM

Published to Catalog

Status: *Force Approved*

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Rachel Lewis

■  Courtney Wood 5/6/2022 2:54 PM

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

Attachments for EDDT - 1050 - Engineering Graphics - 3D CAD

CCO_EDDT_1050 from 2600_SYLLABUS.docx (uploaded by Rex Richards, 11/17/2021 9:21 pm) **EDDT 1050 Impact Response EDDT 2600.docx** (uploaded by Rex Richards, 11/17/2021 9:25 pm)