NOT FOR USE FOR CURRICULAR COURSE CHANGES
REQUEST FOR PROGRAM IMPROVEMENTS

NOTE: Changes to programs may require course changes, which must be processed electronically. Any questions should be directed to Associate Provost David Reinhold at 7-4564 or david.reinhold@wmich.edu

DEPARTMENT: EDMMS  COLLEGE: CEAS
PROPOSED EFFECTIVE FALL YEAR: 2020

PROPOSED IMPROVEMENTS: Academic Program Proposed Improvements
☐ New degree*
☐ New major*
☐ New curriculum*
☐ New concentration*
☐ New certificate*
☐ New minor*
☐ Deletion*
☐ Revised major
☐ Revised minor
☐ Admission requirements
☐ Graduation requirements
☐ Change in Title
☐ Transfer

☐ Other (explain**)
** Other: Minor revisions to curriculum to accommodate new WES requirements

Title of degree, curriculum, major, minor, concentration, or certificate: B.S. in Engineering Design Technology

Chair, Department Curriculum Committee: Brmale  Date 10/22/19

CHECKLIST FOR DEPARTMENT CHAIRS/DIRECTORS
☐ For new programs and other changes that have resource implications, the dean has been consulted.
☐ When appropriate, letters of support from department faculty are attached.
☐ When appropriate, letters of support from other departments in the same college are attached.
☐ When appropriate, letters of support from other college deans, whose programs/courses may be affected by the change, are attached.
☐ The proposal has been reviewed by HIGE for possible implications for international student enrollment.
☐ The proposal is consistent with the departmental assessment plan, and identifies measurable learning outcomes for assessment.
☐ Detailed resource plan is attached where appropriate.
☐ All questions attached have been completed and supporting documents are attached.
☐ The proposal is written and complete as outlined in the Faculty Senate guidelines and the curriculum change guides.

Chair/Director:  Date 10/22/19

CHECKLIST FOR COLLEGE CURRICULUM COMMITTEE
☐ The academic quality of the proposal and the faculty involved has been reviewed.
☐ Detailed resource plan is attached where appropriate.
☐ Consistency between the proposal and the relevant catalog language has been confirmed.
☐ The proposal has been reviewed for effect on students transferring from Michigan community colleges. Detailed information on transfer articulation must be included with undergraduate proposals.
☐ Consistency between the proposal and the College and department assessment plans has been confirmed.
☐ Consistency between the proposal and the College and department strategic plans has been confirmed.
☐ All questions attached have been completed and supporting documents are attached.
☐ The proposal is written and complete as outlined in the Faculty Senate guidelines and the curriculum change guides.

Chair, College Curriculum Committee:  Date

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**CHECKLIST FOR COLLEGE DEANS**

- For new programs and proposed program deletions, the provost has been consulted.
- For new programs, letter of support from University Libraries Dean indicating library resource requirements have been met.
- When appropriate, letters of support from other college faculty and/or chairs are attached.
- When appropriate, letters of support from other college deans, whose programs/courses may be affected by the change, are attached.
- The proposal has been reviewed for implications for accreditation, certification, or licensure.
- Detailed resource plan is attached where appropriate.
- All questions attached have been completed and supporting documents are attached.
- The proposal is written and complete as outlined in the Faculty Senate guidelines and the curriculum change guides.

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**FOR PROPOSALS REQUIRING REVIEW BY:**
GSC/USC; EPGC, GRADUATE COLLEGE, and/or FACULTY SENATE EXECUTIVE BOARD

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*needs review by

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1. Explain briefly and clearly the proposed improvement:

Updated program content to address Western Essential Studies Program requirements and minor curriculum changes to accommodate WES. Increased credit hours for both Health and Wellness WES (formerly Gen Ed Area VIII-Health and Well-Being) and EDMM 4810 from 2 to 3 credit hours. WES has more assigned areas of study which necessitated removal of one (1) of the Approved Electives. In addition, CS 1021 and CS 1023 are no longer being offered and were deleted. CS 1021 and CS 1023 are replaced with CS 1200 which adds one (1) credit to the curriculum. The sum total of all the changes is that the curriculum moves from 124 credit hours to 127.

In addition, all automotive courses were deleted from the list of approved electives because the professor retired and the position was eliminated as part of a budget cut.

2. Rationale. Give your reason(s) for the proposed improvement.

Required to remove references to general education requirements and update with Western Essential Studies Program requirements.

3. Effect on other colleges, departments, or programs. If consultation with others is required, attach evidence of consultation and support. If objections have been raised, document the resolution. Demonstrate that the program you propose is not a duplication of an existing one.

No effect.

4. Effect on your department's programs. Show how the proposed change fits with other departmental offerings.

None.

5. Alignment with college's and department's strategic plan, mission, and vision.

Provides broad-based liberal arts education for engineering technology students and supports both ABET requirements to ensure we graduate well-rounded engineering technologists ready to lead challenges facing our society.

6. Effects on enrolled students: Are program conflicts avoided? Will your proposal make it easier or harder for students to meet graduation requirements? Can students complete the program in a reasonable time? Show that you have considered scheduling needs and demands on students' time.

No effect on enrolled students as they will continue under the catalog year with which they entered. A deliberate transition will occur university-wide to address any issues that arise for current students.

7. Student or external market demand. What is your anticipated student audience? What evidence of student or market demand or need exists? What is the estimated enrollment? What other factors make your proposal beneficial to students?

Not applicable.

8. Effects on resources. Explain how your proposal would affect department and University resources, including faculty, equipment, space, technology, and library holdings. If proposing a new program, include a letter and/or email of support from the university libraries affirming that the library resource issues have been reviewed. Tell how you will staff additions to the program. If more advising will be needed, how will you provide for it? What will be the initial one-time costs and the ongoing base-funding costs for the proposed program? (Attach additional pages, as necessary.)

None. All revisions to the engineering technology program in response to the new Western Essential Studies Program were coordinated across the college and university through the Western Essential Studies Program design.

9. List the learning outcomes for the revised or proposed major, minor, or concentration. The department will use these outcomes for future assessments of the program.

The Engineering Design Technology Educational Objectives are:

1) Plan, design, analyze, implement and improve cost effective manufacturing service systems.
2) Build and use management tools to analyze and solve problems effectively and make decisions from a systems prospective.
3) Communicate effectively in verbal, written and graphic forms.
4) Pursue professional growth and interact effectively in work environments.

The Engineering Design Technology Student Outcomes are:

1) An ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, or technology to solve broadly-defined engineering problems
2) An ability to design systems, components or processes for broadly-defined engineering technology problems appropriate to program educational objectives
3) An ability to apply written, oral and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature
4) An ability to conduct standard tests and measurements; to conduct, analyze and interpret experiments; and to apply experimental results to improve processes
5) An ability to function effectively as a member or leader on a technical team

10. Describe how this change is a response to assessment outcomes that are part of a department or college assessment plan or informal assessment activities.

The changes were in response to a university-wide revised general education program.

11. (Undergraduate proposals only) Describe in detail how this change affects transfer articulation for Michigan community colleges. For new majors or minors, describe transfer guidelines to be developed with Michigan community colleges. For revisions to majors or minors, describe necessary revisions to Michigan community college guidelines. Department chairs should seek assistance from college advising directors or from the admissions office in completing this section.

This aspect is being addressed by the Director of the Western Essential Studies Program, the Associate Provost for Assessment and Undergraduate Studies, and the advising staff.

12. Please offer both “Current Catalog Language” and “Proposed Catalog Language” if there is to be a change in the catalog description for a given program. For the “current” language, please copy and paste relevant language from the most current catalog and for the “proposed” language, please share the exact proposed new catalog language. As possible, bold or otherwise note the key changes in the new proposed catalog language.

CURRENT CATALOG COPY

Put in current curriculum here)

Engineering Design Technology

⇒Return to: Catalog Search


The Engineering Design Technology curriculum deals with design communication related to product and tooling activities of industry including documentation methods, graphic science, computer-aided design, industrial processes, and materials.

The program prepares students to assume such leadership roles as product designers, documentation and standards supervisors, technical publication specialists, or administrators. They are prepared to enter a variety of jobs such as supervision, quality control, and marketing in manufacturing-related industries.

The educational objectives of the Engineering Design Technology program are:

1. Use technological tools effectively in engineering design.

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2. Transfer engineering designs to engineering and manufacturing processes.
3. Plan, design, analyze, implement, and improve cost-effective products and manufacturing/service systems.
4. Communicate effectively in verbal, written, and graphic forms.
5. Practice engineering design as a responsible, global professional.

(For up-to-date educational objectives and learning outcomes, see department web page at www.wmich.edu/edmms)

Baccalaureate-Level Writing Requirement

Students who have chosen the Engineering Design Technology curriculum will satisfy the Baccalaureate-Level Writing Requirement by successfully completing EDMM 4910: Multidisciplinary Senior Proposal and EDMM 4920: Multidisciplinary Senior Project.

Requirements

Candidates for the Bachelor of Science degree must satisfy the following requirements in addition to University requirements stated elsewhere in this bulletin:

1. A grade point average of 2.0 or better must be earned in courses presented for graduation with ECE, MSE, IEE and EDMM prefixes.
2. No more than two grades of “D” or “DC” in courses presented for graduation may be counted for graduation.
3. Complete the following program of 124 semester credit hours. The schedule below is an example of one leading to graduation in eight semesters, beginning in fall.
4. Prior to enrollment in 3000/4000-level courses, students must 1) place resume with Career and Student Employment Services; 2) complete the following courses with a grade of “C” or better: CHEM 1100 and CHEM 1110, IEE 1020, EDMM 2460, IEE 2610, PHYS 1150 and PHYS 1160, and (MATH 1230 or MATH 1710). These courses are indicated below.
5. The Engineering Design Technology curriculum requires students to complete a course in General Education Area I, Area II, Area III, Area IV, Area V, and Area VIII. At least two of the General Education Area courses must be at the 3000/4000-level, and no more than two courses from any one department may be used to satisfy the Area requirements. Engineering Design Technology majors are required to take EDMM 3020 for Area V.

First Semester (16 hours)

- **IEE 1020 - Technical Communication** Credits: 3 hours
- See number 4 in Requirements above.
- **EDMM 1420 - Engineering Graphics** Credits: 3 hours
- **EDMM 1430 - Product Design Fundamentals** Credits: 3 hours
- **EDMM 1500 - Introduction to Manufacturing** Credits: 3 hours
- **MATH 1220 - Calculus I** Credits: 4 hours
- or
- **MATH 1700 - Calculus I, Science and Engineering** Credits: 4 hours

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Second Semester (16 hours)

- **CHEM 1100 - General Chemistry I** Credits: 3 hours
  (Satisfies General Education Area VI)
- See number 4 in Requirements above.
- **CHEM 1110 - General Chemistry Laboratory I** Credits: 1 hour
  (Satisfies General Education Area VI)
- See number 4 in Requirements above.
- **EDMM 1440 - Descriptive Geometry** Credits: 3 hours
- **MATH 1230 - Calculus II** Credits: 4 hours
- or
- **MATH 1710 - Calculus II, Science and Engineering** Credits: 4 hours
- See number 4 in Requirements above.
- **PHYS 1130 - General Physics I** Credits: 4 hours
- See number 4 in Requirements above.
- **PHYS 1140 - General Physics I Laboratory** Credits: 1 hour
- See number 4 in Requirements above.

Third Semester (16 hours)

- **CS 1021 - Introduction to Engineering Computing I: Spreadsheets** Credits: 1 hour
- **CS 1023 - Introduction to Engineering Computing III: Computer Programming** Credits: 1 hour
- **EDMM 2460 - CAD - Solid Modeling** Credits: 3 hours
- See number 4 in Requirements above.
- **EDMM 2540 - Machining Processes** Credits: 3 hours
- **IEE 2610 - Engineering Statistics** Credits: 3 hours
- See number 4 in Requirements above.
- **PHYS 1150 - General Physics II** Credits: 4 hours
- See number 4 in Requirements above.
- **PHYS 1160 - General Physics II Laboratory** Credits: 1 hour
- See number 4 in Requirements above.

Fourth Semester (16 hours)

- **EDMM 2001 - Applied Electricity/Electronics** Credits: 3 hours
- See number 4 in Requirements above.
- **EDMM 2500 - Plastics Properties and Processing** Credits: 3 hours
- **EDMM 2810 - Statics and Strength of Materials** Credits: 4 hours
- **EDMM 3020 - Engineering Teams: Theory and Practice** Credits: 3 hours
  (Satisfies General Education Area V)
- **EDMM 2560 - Engineering Material Design** Credits: 3 hours
- or

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Fifth Semester (16 hours)

- Approved Elective  Credits: 3 hours
- General Education Area VIII: Health & Well Being*  Credits: 2 hours
- EDMM 2830 - Thermodynamics  Credits: 2 hours
- EDMM 3480 - Designing for Production  Credits: 3 hours
- EDMM 3540 - Metrology  Credits: 3 hours
- EDMM 3840 - Fluid Mechanics and Hydraulics  Credits: 3 hours

Sixth Semester (15 hours)

- Approved Elective  Credits: 3 hours
- EDMM 3200 - Engineering Cost Analysis  Credits: 3 hours
- EDMM 3440 - Product and Machine Design  Credits: 3 hours
- EDMM 3460 - Programming for Computer-Aided Design  Credits: 3 hours
- EDMM 4460 - Advanced Computer-Aided Design (CAD)  Credits: 3 hours

Seventh Semester (14 hours)

- Approved Elective  Credits: 3 hours
- General Education Area I: Fine Arts*  Credits: 3 hours
- EDMM 4480 - Computer-Aided Analysis  Credits: 3 hours
- EDMM 4490 - Advanced Product and Systems Design  Credits: 3 hours
- EDMM 4910 - Multidisciplinary Senior Proposal  Credits: 2 hours

Eighth Semester (15 hours)

- Approved Elective  Credits: 3 hours
- General Education Area II: Humanities*  Credits: 3 hours
- General Education Area III: The United States: Cultures and Issues*  Credits: 3 hours
- General Education Area IV: Other Cultures and Civilizations*  Credits: 3 hours
- EDMM 4920 - Multidisciplinary Senior Project  Credits: 2 hours
- EDMM 4930 - Multidisciplinary Senior Project Consultation  Credits: 1 hour

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* At least two of these courses must be at the 3000-4000 level.

**Approved Electives - EDT**

- **EDMM 1220 - Automobile in Society** Credits: 3 hours
- **EDMM 2220 - Mobile Energy Sources and Lubricants** Credits: 3 hours
- **EDMM 2990 - Cooperative Education** Credits: 1 to 3 hours
- **EDMM 3120 - Systems Decision Making** Credits: 3 hours
- **EDMM 3240 - Automotive Power Systems** Credits: 3 hours
- **EDMM 3250 - Automotive Electrical Systems** Credits: 3 hours
- **EDMM 3260 - Operations Planning and Control** Credits: 3 hours
- **EDMM 3280 - Quality Assurance and Control** Credits: 3 hours
- **EDMM 3500 - Production Thermoplastic Processing** Credits: 3 hours
- **EDMM 3520 - Metal Casting** Credits: 3 hours
- **EDMM 3580 - Computer-Aided Manufacturing** Credits: 3 hours
- **EDMM 4250 - Automatic and Automated Drive Line Control Systems** Credits: 3 hours
- **EDMM 4260 - Automotive Structure, Ride, and Safety** Credits: 3 hours
- **EDMM 4520 - Die Casting** Credits: 3 hours
- **EDMM 4560 - Process Testing and Measurement** Credits: 3 hours
- **EDMM 4570 - Manufacturing for Sustainability** Credits: 3 hours
- **EDMM 4590 - Mold Design and Construction** Credits: 3 hours
- **EDMM 4870 - Manufacturing Productivity Techniques** Credits: 3 hours
- **EDMM 4880 - Applied Process Reengineering** Credits: 3 hours
- **EDMM 5500 - Advanced Plastics Processing** Credits: 3 hours
- **IEE 3420 - Ergonomics and Design** Credits: 3 hours
- **MATH 2720 - Multivariate Calculus and Matrix Algebra** Credits: 4 hours
- **MATH 3740 - Differential Equations and Linear Algebra** Credits: 4 hours
- **MSL 1020 - Introduction to the Profession of Arms** Credits: 1 hour
- **MSL 2020 - Army Doctrine and Team Development** Credits: 2 hours
- **MSL 3020 - Applied Leadership in Small Unit Operations** Credits: 3 hours
- **MSL 4020 - Mission Command and the Company Grade Officer** Credits: 3 hours

**Note:**

Some courses taken as part of other CEAS degrees or technical degrees may be used as electives. Please see an advisor prior to taking any course not on this list.

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Engineering Design Technology

Accredited by the Engineering Technology Commission ETAC of ABET, [www.abet.org](http://www.abet.org).

The Engineering Design Technology curriculum deals with design communication related to product and tooling activities of industry including documentation methods, graphic science, computer-aided design, industrial processes, and materials. The program prepares students to assume such leadership roles as product designers, documentation and standards supervisors, technical publication specialists, or administrators. They are prepared to enter a variety of jobs such as supervision, quality control, and marketing in manufacturing-related industries.

The Engineering Design Technology Educational Objectives are:

1) Plan, design, analyze, implement and improve cost effective manufacturing service systems.
2) Build and use management tools to analyze and solve problems effectively and make decisions from a systems prospective.
3) Communicate effectively in verbal, written and graphic forms.
4) Pursue professional growth and interact effectively in work environments.

The Engineering Design Technology Student Learning Outcomes are:

1) An ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, or technology to solve broadly-defined engineering problems.
2) An ability to design systems, components or processes for broadly-defined engineering technology problems appropriate to program educational objectives.
3) An ability to apply written, oral and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature.
4) An ability to conduct standard tests and measurements; to conduct, analyze and interpret experiments; and to apply experimental results to improve processes.
5) An ability to function effectively as a member or leader on a technical team.

(For up-to-date Educational Objectives and Student Learning Outcomes, see department web page at [www.wmich.edu/edmms](http://www.wmich.edu/edmms))

WMU Essential Studies Program Requirements

Students who have chosen the Engineering Design Technology curriculum will satisfy the Western Essential Studies Program Requirements as outlined within the course listings below. To satisfy these requirements students take courses in twelve (12) categories. Six (6) of the courses are designated within the Engineering Design Technology program requirements and six (6) are free electives which students choose from a list of courses in the corresponding course category. Students will meet the planetary sustainability outcome in EDMM 1500: Introduction to Manufacturing and must select a course that satisfies the Diversity and Inclusion outcome when choosing a course in the other six (6) categories.

Requirements

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1. A “C” or better must be earned in all required courses with EDMM or IEE prefix.
2. No more than two grades of “D” or “D” in courses presented for graduation may be counted for graduation.
3. Complete the following program of 127 semester hours. The schedule below is one example leading to graduation in eight semesters.
4. Prior to enrollment in 3000/4000 level courses student’s must:
   - Place resume with Career and Student Employment Services
   - Complete the following courses with a grade of “C” or better: CHEM 1100 & 1110, IEE 1020, EDMM 2460, IEE 2610, PHYS 1150 & 1160, MATH 1220 or 1700 and MATH 1230 or MATH 1710.
5. The Engineering Design Technology curriculum requires students to complete twelve (12) Western Essential Studies (WES) courses.

First Semester (16 hours)

- **IEE 1020 - Technical Communication** Credits: 3 hours
  (Satisfies Western Essential Studies (WES) Level 1: Writing)
- **EDMM 1420 - Engineering Graphics** Credits: 3 hours
- **EDMM 1430 - Product Design Fundamentals** Credits: 3 hours
- **EDMM 1500 - Introduction to Manufacturing** Credits: 3 hours
  (Satisfies Western Essential Studies (WES) Level 2: Science and Technology & Planetary Sustainability)
- **MATH 1220 - Calculus I** Credits: 4 hours
  (Satisfies Western Essential Studies (WES) Level 1: Quantitative Reasoning)
  OR
- **MATH 1700 - Calculus I, Science and Engineering** Credits: 4 hours
  (Satisfies Western Essential Studies (WES) Level 1: Quantitative Reasoning)

Second Semester (16 hours)

- **CHEM 1100 - General Chemistry I** Credits: 3 hours
  (Satisfies Western Essential Studies (WES) Level 2: Laboratory Science)
- **CHEM 1110 - General Chemistry Laboratory I** Credits: 1 hour
  (Satisfies Western Essential Studies (WES) Level 2: Laboratory Science)
- **EDMM 1440 - Descriptive Geometry** Credits: 3 hours
- **MATH 1230 - Calculus II** Credits: 4 hours
  (Satisfies Western Essential Studies (WES) Level 1: Quantitative Reasoning)
  OR
- **MATH 1710 - Calculus II, Science and Engineering** Credits: 4 hours
  (Satisfies Western Essential Studies (WES) Level 1: Quantitative Reasoning)
- **PHYS 1130 - General Physics I** Credits: 4 hours
  (Satisfies Western Essential Studies (WES) Level 2: Laboratory Science)
- **PHYS 1140 - General Physics I Laboratory** Credits: 1 hour
  (Satisfies Western Essential Studies (WES) Level 2: Laboratory Science)

Third Semester (17 hours)

- **CS 1200 - Program in C for Engineers** Credits: 3 hours
- **EDMM 2460 - CAD - Solid Modeling** Credits: 3 hours

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• EDM2540 - Machining Processes Credits: 3 hours
• IBE 2610 - Engineering Statistics Credits: 3 hours
(Satisfies Western Essential Studies (WES) Level 1: Communications)
• PHYS 1150 - General Physics II Credits: 4 hours
• PHYS 1160 - General Physics II Laboratory Credits: 1 hour

Fourth Semester (16 hours)
• EDM2001 - Applied Electricity/Electronics Credits: 3 hours
• EDM2500 - Plastics Properties and Processing Credits: 3 hours
• EDM2810 - Statics and Strength of Materials Credits: 4 hours
• EDM3020 - Engineering Teams: Theory and Practice Credits: 3 hours
• EDM2560 - Engineering Material Design Credits: 3 hours
OR
• ME 2500 - Materials Science for Engineers Credits: 3 hours

Fifth Semester (17 hours)
• Western Essential Studies (WES) Level 2: Personal Wellness* Credits: 3 hours
• Western Essential Studies (WES) Level 2: Societies and Cultures* Credits: 3 hours
• EDM2830 - Thermodynamics Credits: 2 hours
• EDM3480 - Designing for Production Credits: 3 hours
• EDM3540 - Metrology Credits: 3 hours
• EDM3840 - Fluid Mechanics and Hydraulics Credits: 3 hours

Sixth Semester (15 hours)
• Western Essential Studies (WES) Level 2: World Language and Culture* Credits: 3 hours
• EDM3200 - Engineering Cost Analysis Credits: 3 hours
• EDM3440 - Product and Machine Design Credits: 3 hours
• EDM3460 - Programming for Computer-Aided Design Credits: 3 hours
• EDM4460 - Advanced Computer-Aided Design (CAD) Credits: 3 hours
• EDM4460 - Advanced Computer-Aided Design (CAD) Credits: 3 hours

Seventh Semester (15 hours)
• Approved Elective Credits: 3 hours
• Western Essential Studies (WES) Level 2: Artistic Theory and Practice* Credits: 3 hours
• EDM4480 - Computer-Aided Analysis Credits: 3 hours
• EDM4490 - Advanced Product and Systems Design Credits: 3 hours
• EDM4910 - Multidisciplinary Senior Proposal Credits: 3 hours
(Satisfies Western Essential Studies (WES) Level 3: Local and National Perspectives)

Eighth Semester (15 hours)
• Approved Elective Credits: 3 hours
• Approved Elective Credits: 3 hours
• Western Essential Studies (WES) Level 3: Global Perspectives* Credits: 3 hours

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• Western Essential Studies (WES) Level 1: Inquiry and Engagement: Critical Thinking in the Arts and Humanities* Credits: 3 hours
• EDMM 4920 - Multidisciplinary Senior Project Credits: 2 hours
• EDMM 4930 - Multidisciplinary Senior Project Consultation Credits: 1 hour

NOTE:

*At least one of these Western Essential Studies (WES) courses must fulfill the Diversity and Inclusion requirement.

Approved Electives - EDT

• EDMM 2990 - Cooperative Education Credits: 1 to 3 hours
• EDMM 3120 - Systems Decision Making Credits: 3 hours
• EDMM 3500 - Production Thermoplastic Processing Credits: 3 hours
• EDMM 4520 - Die Casting Credits: 3 hours
• EDMM 4560 - Process Testing and Measurement Credits: 3 hours
• EDMM 4590 - Mold Design and Construction Credits: 3 hours
• EDMM 4870 - Manufacturing Productivity Techniques Credits: 3 hours
• EDMM 4880 - Applied Process Reengineering Credits: 3 hours
• EDMM 5500 - Advanced Plastics Processing Credits: 3 hours
• IEE 3420 - Ergonomics and Design Credits: 3 hours
• MATH 2720 - Multivariate Calculus and Matrix Algebra Credits: 4 hours
• MATH 3740 - Differential Equations and Linear Algebra Credits: 4 hours
• MSL 1020 - Introduction to the Profession of Arms Credits: 1 hour
• MSL 2020 - Army Doctrine and Team Development Credits: 2 hours
• MSL 3020 - Applied Leadership in Small Unit Operations Credits: 3 hours
• MSL 4020 - Mission Command and the Company Grade Officer Credits: 3 hours

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