**Purdue Northwest Curriculum Document Coversheet**

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| **Document No:**  (According to [Instruction](http://faculty.pnw.edu/blog/curriculum-document-approval-procedures/)s[[1]](#footnote-1)) | COT 18-13 NEW COURSE MCET 38200 | **Approval by Faculty Senate:**  (Leave Blank) | 11-9-18 |
| **Proposed Effective Date** | January 1, 2019 | **Date Reviewed by Senate Curriculum**  **Committee:**  (Leave blank) | 12-13-18 |
| **Submitting Department:**  (Name of both Dept & College/School ) | Engineering Technology COT | **Name(s) of Library Staff Consulted:**  (NA if not required) |  |
| **Date Reviewed by Department** | November 20, 2018 |  |  |
| **Submission Date:**  (Date sent to College/School Curr Comm after Dept Review) | November 26, 2018 | **Will New Library**  **Resources Used?** | **Yes** **No**  Double-click to check Yes / No. |
| **Date Reviewed by College/School Curriculum Committee** | November 27, 2018 | **Form 40 Needed?**  (Double-click one box.)  Registrar will complete Form 40 **after** Senate approval of document. | x **Yes** New courses or any course change, check **YES**  **No** For **all other** curriculum matters, check **NO**. |
| **Contact Person(s):**  (Name & Title) | Maged Mikhail Assistant Professor |  |  |

Unless marked “Leave blank” all parts of this form must be filled in **before** sending to Secretary of the Faculty Senate.

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| **Task (check all that apply and fill out sections appropriate for each change).**  Program/Concentration Change or New Program/Concentration Proposal: Complete Section I, III, & IV  Minor Change or New Minor Proposal: Complete Section I (delete sections III & IV)  Certificate Change or New Certificate Proposal: Complete Section I (delete sections III & IV)  Course Change or New Course Proposal: Complete Section II (delete sections III & IV) |
| **Program name**. Mechatronics Engineering Technology |
| **Degree name(s).** (If applicable.) |

## Section I: This section is for changes in programs, minors and certificates

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| **List the major changes in each program of study, minor or certificate.**  N/A |
| **Impact on Students.** (State “N/A” if proposal will not greatly affect students.)  N/A |
| **Impact on University Resources.** (State “N/A” if proposal will not require new resources, faculty or funds.)  N/A |
| **Impact on other Academic Units.** (State “N/A” if proposal will not affect other units.)(Include name of person in affected area discussed with)  N/A |

## Section II: This section is for changes in courses only

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| **Subject.** (Brief description of proposed change, addition or deletion.)  This is an elective course for ET students to take towards robotics concentration. Students will earn a certificate in tool handling and operations from Fanuc Inc. |
| **Justification.** (Briefly list main reasons for proposed change, addition or deletion.)  This course will enhance ET students with the knowledge and skills that are required for working and programming industrial robots. |

Use the **Current** and **Proposed** spaces below for course changes only. Otherwise, mark “N/A”

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| **Current:** (Course changes: include entire present catalog information. Leave blank if new course) | | **Proposed:** (Course changes: include entire new catalog information.)  MCET 38200 (2-3-3) Programming Industrial Robots  Background on industrial robot system, safety, types of robots, mechanics and control, electronic system components, concepts of a work-cell system, geometry, path control, automation sensors hardware /software and programming. Learn and apply robot simulation software. Hands-on experience programming and manipulating the industrial robots in step-by-step and production modes.  Prerequisite(s): ECET 26200 OR MET38200 |
| **Is this course also:** | **General Education** | **Currently Designated ExL (see** [**instructions[[2]](#footnote-2)**](http://faculty.pnw.edu/blog/curriculum-document-approval-procedures/)**)** |

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| **Course Objectives / Learning Outcomes.** (New courses only. List main outcomes. If lengthy, attach separate page.)   1. Discuss industrial robotic safety procedures. 2. Explain different frames that uses robotic arm. 3. Describe different inputs and outputs and how to configure them 4. Understand and apply various program instructions and macro commands. 5. Be able to modify the program in different levels. 6. Explain how to setup a robot for production using teaching pendant. 7. Describe how to manipulate files: copy and delete programs, backup all or specific types of files to a specific device. Learn how to load program from the backup device and how to do an image backup and restore 8. Demonstrate proficiency simulating operation of the robot via Robot simulation software. 9. Demonstrate proficiency manipulating robotic arm and successfully complete the assigned tasks. |
| **Impact on Students.** (State “N/A” if proposal will not greatly affect students.) N/A |
| **Impact on University Resources.** (State “N/A” if proposal will not require new resources, faculty or funds.) N/A |
| **Impact on other Academic Units.** (State “N/A” if proposal will not affect other units.) (Include name of person in affected area this was discussed with.) N/A |

(Boxes will expand and spill over onto next page to accommodate your typing.)

1. <http://faculty.pnw.edu/blog/curriculum-document-approval-procedures/> [↑](#footnote-ref-1)
2. <http://faculty.pnw.edu/blog/curriculum-document-approval-procedures/> [↑](#footnote-ref-2)