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| Student Name (First Last):       Staff Initials:       Date:       |
| Bachelor of Applied Science in Mechanical Engineering Technology & Automation |
| BAS-META  |
| **Admissions Date:** Fall quarter or by instructor permission. |  |  |  |  |  |  |
| **Instructor: jason.sawatzki@cptc.edu and carl wenngren@cptc.edu****Program Counselor:** taylor.mcgovern@cptc.edu  |
| **Admissions:** Successful completion of MEC 120, MEC 201 and MEC 202 or completion of approved Applied Associate degree, AAS-T, Direct Transfer Associate degree or equivalent with 2.3 GPA. See college website for complete application requirements: https://www.cptc.edu/programs/basmeta **Graduation Requirements:** Students must earn aminimum grade of 2.3 GPA in all coursework to successfully complete the degree. |
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| **General Education Distribution Requirements (from the Associate Degree and BASMETA)** |
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| **Discipline** | **Lower Division** | **Upper Division General Education Courses** |
| 10 Credits Communication |  ***ENGL& 101 English Comp. (5cr):***      **ENGL& 235 Tech Writing (5cr):**       |  |
| 20 Credits Quantitative | ***MATH& 141 Pre-Calculus I (5cr):***      **MATH& 142 Pre-Calculus II (5cr):**      **MATH& 151 Calculus I (5cr):**      **MATH& 152 Calculus II (5cr):**       |  |
| 10 Credits Humanities | **College level Humanities (5cr):**        | **PHIL 310 Professional Ethics (5cr):**  *(Pre-requisite: ENGL& 101)*        |
| 10 Credits Social Science | ***PSYC& 100 Psychology (5cr):***       | **PSYC 311 Ind. & Org. Psych (5cr):** *(Pre-requisite: PSYC& 100)*       |
| 12 Credits Science  | **PHYS& 221 Eng. Physics I (6cr):**      **PHYS& 222 Eng. Physics II (6cr):**       |  |
| 5 Additional General Education Credits | ***Any college Level General Education course (5cr):***       |  |

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| **Humanities:** Any common course numbered 100+ level in *Art, ASL, Humanities, Music, and Communications* |

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| **BAS-META Program Courses** |
| **Quarter 1 - Fall** | **Credits** |  |  |
| MATH& 142 Pre-Calculus II, Functional Trigonometry *(Pre-requisite: Math& 141)*  | 5 |  |       |
| MEC 310 Environmentally Sustainable Manufacturing | 5 |  |       |
| MEC 330 Programming for Industry 4.0 | 5 |  |       |
| **Quarter 2 - Winter** | **Credits** |  |  |
| MATH& 151 Calculus I *(Pre-requisite: Math& 142)*  | 5 |  |       |
| MEC 300 The Industrial Internet of Things | 5 |  |       |
| MEC 320 Fixtures and Workflow | 5 |  |       |
|   |
| **Quarter 3 - Spring** | **Credits** |  |  |
| MATH& 152 Calculus II *(Pre-requisite: Math& 151)*  | 5 |  |       |
| ENGL& 235 Technical Writing | 5 |  |       |
| Mechatronics Technical Elective (Chosen from the list below) | 5 |  |       |
| **Quarter 4 - Fall** | **Credits** |  |  |
| PHYS& 221 Engineering Physics I  | 6 |  |       |
| PSYC 311DIV Industrial & Organizational Psychology *(Pre-requisite: PSYC&100)* | 5 |  |       |
| Mechatronics Technical Elective (Chosen from the list below) | 5 |  |       |
| **Quarter 5 - Winter** | **Credits** |  |  |
| PHYS& 222 Engineering Physics II  | 6 |  |       |
| PHIL 310 DIV Professional Ethics  | 5 |  |       |
| MEC 450 Mechatronics Project Management Preparation and Planning | 2 |  |       |
| Mechatronics Technical Elective (Chosen from the list below) | 5 |  |       |
| **Quarter 6 - Spring** | **Credits** |  |  |
| General Humanities Academic Elective | 5 |  |       |
| MEC 490 Project Management  | 5 |  |       |
| Mechatronics Technical Elective (Chosen from the list below) | 5 |  |       |
| *Total General Education Courses* | *47* |  |  |
| *Total Program Courses* | *47* |  |  |
| ***Total Credits for BAS-META Degree Completion***  | ***94\**** |  |  |
| *\* Total credits for the degree do not include lower-level general education courses (if needed).* |  |  |  |
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| **Electives** | **Credits** |  |  |
| MEC 361 Process Control. | 5 |  |       |
| MEC 362 Advanced Sensors and Actuators | 5 |  |       |
| MEC 363 AI and Data Analytics  | 5 |  |       |
| MEC 381 Automation Evaluation and Implementation  | 5 |  |       |
| MEC 382 Machine Vision  | 5 |  |       |
| MEC 383 Dynamics of Machinery and Kinematics  | 5 |  |       |
| MEC 402 Robotic Integration | 5 |  |       |
| MEC 403 Simulation, Emulation and Digital Twins  | 5 |  |       |
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| Quarterly Self Planning Grid |
| **Quarter 1** | **Quarter 2** | **Quarter 3** | **Quarter 4** |
|  |  |  |  |
| Class:                 | Class:                 | Class:                 | Class:                 |
| Class:                 | Class:                 | Class:                 | Class:                 |
| Class:                 | Class:                 | Class:                 | Class:                 |
| Class:                 | Class:                 | Class:                 | Class:                 |
| **Quarter 5** | **Quarter 6** | **Quarter 7** | **Quarter 8** |
|  |  |  |  |
| Class:                 | Class:                 | Class:                 | Class:                 |
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| Class:                 | Class:                 | Class:                 | Class:                 |
| Class:                 | Class:                 | Class:                 | Class:                 |

***\*Please check in periodically with Advising and Counseling regarding any potential changes to program course requirements***