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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. | | | | | | | | | | | | | |
|  | | | | | | | | | |  |  |  |
| **General Education Distribution Requirements (from the Associate Degree and BASMETA)** | | | | | | | | | | | | | |
| |  |  |  | | --- | --- | --- | | **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):*** |  |  |  | | --- | | **Humanities:** Any common course numbered 100+ level in *Art, ASL, Humanities, Music, and Communications* | | | | | | | | | | | | | | |
|  | | | | | | | | | |  |  |  |
| **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).* | | | | | | | | | |  |  |  |
|  | | | | | | | | | |  |  |  |
| **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 |  |  |
|  | | | | | | | | | |  |  |  |
| Quarterly Self Planning Grid | | | | | | | | | | | | | |
| **Quarter 1** | **Quarter 2** | **Quarter 3** | | | | | | | **Quarter 4** | | | | |
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| **Quarter 5** | **Quarter 6** | **Quarter 7** | | | | | | | **Quarter 8** | | | | |
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| Class: | Class: | Class: | | | | | | | Class: | | | | |

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