**Multidisciplinary Technology**

Purdue Polytechnic Institute Vincennes PIMDT-BS

 120 Credits for graduation

**BLUE** denotes Vincennes location course offering**.**

**Departmental/Program Major Courses (120 credits)**

 **Required Major Courses (42 credits)**

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|  | (3) | IET 11100 Introduction to Manufacturing and Supply Chain Systems |
|  | (3) | IET 21400 Introduction to Supply Chain Management Technology |
|  | (3) | IET 23500 Introduction to Lean and Sustainable Systems |
|  | (3) | TLI 25400 Leading Change in Technology Organizations |
|  | (3) | IET 31600 Statistical Quality Control |
|  | (3) | IET 33400 Economic Analysis for Technology Systems |
|  | (3) | IET 34200 Warehouse and Inventory Management |
|  | (3) | IET 33520 Human Factors for Technology Systems |
|  | (3) | TLI 35600 Global Technology Leadership |
|  | (3) | IET 43530 Operations Planning and Management |
|  | (3) | IET 44275 Global Transportation and Logistics Management |
|  | (3) | TECH 12000 Design Thinking in Technology |
|  | (3) | TECH 32000 Technology and the Organization |
|  | (3) | TECH 33000 Technology and the Global Society |

**Other Departmental /Program Course Requirements (76 credits)**

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| --- | --- | --- |
|  | (3) | MA 15300 – Algebra & Trig I or MA 15555 – Quantitative reasoning (*satisfies* *Quantitative Reasoning* for core)-MATH 102-College Algebra or MATH 103-Math & Its Applications |
|  | (3) | Mathematics/Statistics Selective4 |
|  | (3) | COM 11400 – Fundamentals of Speech Communication**5** (*satisfies* *Oral Communication for core*)- COMM 101-Fundamentals of Public Speaking or COMM 143 Speech |
|  | (3) | English Composition Selective**6** (*satisfies* *Written Communication for core*) -ENGL 101-English Composition I |
|  | (3) | Advanced Communication Selective**7** IET 34300 Technical & Service Selling |
|  | (4) | Lab Science Foundation Selective**8** *(satisfies Science for core)* |
|  | (3) | Science Foundation Selective**9** *(satisfies Science for core)*  |
|  | (3) | Behavioral/Social Sciences Selective**10** *(satisfies Human Cultures Behavioral/Social Science for core)* |
|  | (3) | Humanities Foundation Selective**11** *(satisfies Human Cultures Humanities for core)*  |
|  | (12) | Secondary Focus Area Selective**1** |
|  | (12) | Approved Focus Selective**2** |
|  | (18) | Multidisciplinary Selective**3** |
|  | (6)  | Foundation Selective12 |

**Free Electives13 (2 credits)**

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**University Core Requirements (**[**http://www.purdue.edu/provost/initiatives/curriculum/course.html**](http://www.purdue.edu/provost/initiatives/curriculum/course.html)**)**

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| *Human Cultures Humanities* |  | *€* | **Supplemental info. 11** |  | *Science, Technology & Society Selective* |  | *€* | **TECH 12000** |
| *Human Cultures Behavioral/Social Science* |  | *€* | **Supplemental info. 10** |  | *Written Communication* |  | *€* | **ENGL 10100 (ENGL 10100)** |
| *Information Literacy* |  | *€* | **TECH 12000** |  | *Oral Communication* |  | *€* | **COMM 11400 (SPCH 143 OR SPCH 148)** |
| *Science Selective* |  | *€* | **Supplemental info. 8** |  | *Quantitative Reasoning* |  | *€* | **MA 15300 (MATH 102 OR MATH 103)** |
| *Science Selective* |  | *€* | **Supplemental info. 9** |  |  |  |  |  |

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**The student is ultimately responsible for knowing and completing all degree requirements.**

**myPurduePlan is knowledge source for specific requirements and completion**

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* **Purdue policy states that a student may attempt registration in a course no more than three times. An attempt is defined as all courses displayed on a student transcript having grades of (including, but not limited to) A, B, C, D, E, F, W, WF, I and IF.**
* **120 semester credits required for Bachelor of Science degree.**
* **2.0 Graduation GPA required for Bachelor of Science degree.**
* **NOTE: Students must take 32 credit hours of 30000 or 40000 level classes at Purdue University.**

Purdue Polytechnic, BS degree in Multidisciplinary Technology

Suggested Eight Semester Plan of Study from VU’s AS in Industrial Maintenance

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| --- | --- | --- | --- |
| **Semester 1** | **Cr** | **Semester 2** | **Cr** |
| COM 11400 Fundamentals of Speech CommunicationVU COMM 101, 143 or 148 | 3 | Lab Science Foundation Selective8VU list of approved science courses with lab | 4 |
| MA 15300 or MA 15555VU MATH 102, Algebra or MATH 103, Math & Its Applications | 3 | Mathematics/Statistics Foundation Selective4 | 3 |
| Secondary Focus Area Course1VU CIMT 125/125L Introduction to Robotics and Automation/Introduction to Robotics and Automation Lab | 3 | English Composition Selective6VU ENGL 101 | 3 |
| Humanities Foundation Selective11 | 3 | Multidisciplinary Selective3VU CIMT 160/160L Fluid Power Systems/Fluid Power Systems Lab |  2 |
| Secondary Focus Area Course1VU CIMT 140/140L Mechanical Drives/Mechanical Drives Lab | 3 | Secondary Focus Area Course1VU CIMT 150/150L Electronic and Electrical Applications for Manufacturing/Electronic and Electrical Applications for Manufacturing Lab  | 3 |
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| TOTAL | 15 | TOTAL | 15 |
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| **Semester 3** | **Cr** | **Semester 4** | **Cr** |
| Science Foundation Selective9 | 3 | Free Elective13VU WELD 160 General Welding | 2 |
| Focus Area Selective2VU CIMT 200 Programmable Logic Controllers | 3 | Multidisciplinary Selective3VU CIMT 100 Electronics for Automation | 3 |
| Secondary Focus Area Course1VU CIMT 175/175L Mechatronics/Mechatronics Lab | 3 | Behavioral/Social Sciences Selective10 | 3 |
| Multidisciplinary Selective3VU CIMT 204/204L Troubleshooting Automated Systems/Troubleshooting Automated Systems Lab | 2 | Multidisciplinary Selective3VU CIMT 100L Electronics for Automation Lab | 3 |
| Multidisciplinary Selective3VU CIMT 250/250L Robotics Applications and Servicing/Robotics Applications and Servicing Lab | 3 | Multidisciplinary Selective3VU CIMT 200L Programmable Logic Controllers Lab | 3 |
| Multidisciplinary Selective3VU CIMT 206/206L Motors and Motor Control/Motors and Motor Control Lab | 2 |  |  |
| TOTAL | 16 | TOTAL | 14 |
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| **Semester 5** | **Cr** | **Semester 6** | **Cr** |
| TECH 12000 Design Thinking in Technology | 3 | TECH 32000 Tech and the Organization ONLINE | 3 |
| IET 11100 Introduction to Manufacturing and Supply Chain Systems | 3 | Advanced Communication Selective7IET 34300 Technical & Service Selling | 3 |
| IET 21400 Introduction to Supply Chain Mgmt. | 3 | IET 34200 Warehouse and Inventory Management | 3 |
| IET 23500 Introduction to Lean and Sustainable Systems | 3 | Focus Area Selective2IET 33620 Total Productive Maintenance | 3 |
| Foundation Selective12  | 3 | IET 33520 Human Factors for Technology Systems | 3 |
| TOTAL | 15 | TOTAL | 15 |
|  |  |  |  |
| **Semester 7** | **Cr** | **Semester 8** | **Cr** |
| IET 33400 Economic Analysis for Technology Systems | 3 | TLI 35600 Global Technology Leadership | 3 |
| IET 31600 Statistical Quality Control | 3 | IET 44275 Global Transportation and Logistics Management | 3 |
| Focus Area Selective2IET 43540 Facilities Planning and Material Handling | 3 | TECH 33000 Tech and the Global Society ONLINE | 3 |
| IET 43530 Operations Planning and Management | 3 | Focus Area Selective2IET 43640 Lean Six Sigma | 3 |
| Foundation Selective12  | 3 | TLI 25400 Leading Change in Technology Organizations | 3 |
| TOTAL | 15 | TOTAL | 15 |

**MDT Supplemental Information**

All prerequisites must be met

Blue denotes course that all Vincennes AS degree courses will transfer to Purdue meeting core

Red denotes Vincennes Industrial Maintenance AS degree courses for transfer to Purdue

**1Secondary Focus Area Courses (12 credits)**

(3) UND 1XXXX/1XXXX Intro to Robotics & Automation/Intro to Robotics & Auto. Lab – (3) VU CIMT 125/ 125L Introduction to Robotics and Automation/Introduction to Robotics and Automation Lab

(3) UND 1XXXX/1XXXX Mechanical Drives/Mechanical Drives Lab – (3) VU CIMT 140/ 140L Mechanical Drives/Mechanical Drives Lab

(3) UND 1XXXX/1XXXX Electronic &Elect Appl-Mfg/ Electronic &Elect App Mfg. Lab – (3) VU CIMT 150/ 150L Electronic and Electrical Applications for Manufacturing/Electronic and Electrical Applications for Manuf. Lab

(3) UND 1XXXX/1XXXX Mechatronics/Mechatronics Lab – (3) VU CIMT 175/ 175L Mechatronics/Mechatronics Lab

**2 Focus Area Selective Courses (12 credits)**

(3) TLI 21300 – Project Management

(3) IET 31300 – Technology Innovation and Integration: Bar Codes to Biometrics

(3) IET 33620 - Total Productive Maintenance

(3) IET 34250 – Purchasing and Contract Management

(3) UND 2XXXX Programmable Logic Controllers – (3) VU CIMT 200 Programmable Logic Controllers

(3) IET 41400 Financial Analysis for Technology Systems

(3) IET 43640 Lean Six Sigma

(3) IET 43540 Facilities Planning and Material Handling

**3Multidisciplinary Selective Courses (18 credits)**

(3) UND 2XXXX/2XXXX Robotics Applications Servicing/Robotics Appl. Serv. Lab – (3) VU CIMT 250/ 250L Robotics Applications and Servicing/Robotics Applications and Servicing Lab

(3) UND 2XXXX Programmable Logic Controllers Lab – (3) VU CIMT 200L Programmable Logic Controllers Lab

(2) UND 2XXXX/2XXXX Troubleshooting Auto Systems/Troubleshooting Auto Syst. Lab – (2) VU CIMT 204/ 204L Troubleshooting Automated Systems/Troubleshooting Automated Systems Lab

(2) UND 2XXXX/2XXXX Motors & Motor Control/ Motors & Motor Control Lab – (2) VU CIMT 206/ 206L Motors and Motor Control/ Motors and Motor Control Lab

(3) UND 1XXXX Electronics for Automation I – (3) VU CIMT 100 Electronics for Automation

(3) UND 1XXXX Electronics for Automation I Lab– (3) VU CIMT 100 Electronics for Automation Lab

(2) UND 1XXXX/1XXXX Fluid Power Systems/Fluid Power Systems Lab – (2) VU CIMT 160/160L Fluid Power Systems/Fluid Power Systems Lab

**4Mathematics/Statistics Selective (3 credits)**

MATH 104 Trigonometry (MA 15400 Algebra & Trigonometry II)

MATH 110 Statistics (STAT 30100 Elem Stat Meth)

MATH 115 Survey of Calculus I (MA 16010 Applied Calculus I)

**5Oral Communication Selective *(satisfies Oral Communication for core, 3 credits)***

COMM 101 – Fundamentals of Public Speaking or COMM 143 – Speech (COM 11400 Fundamentals of Speech) or

COMM 148 – Interpersonal Communication (COM 21200 Interpersonal Communication)

**6 English Composition Selective (*satisfies Written Communication for core, 3 credits*)**

ENGL 101 English Composition 1 (ENGL 10100 English Composition I)

**7Advanced Communication Selective (3 credits)**

IET 34300 Technical & Service Selling

**8Lab Science Foundation Selective** ***(satisfies Science for core, 4 credits)***

PSCI 101 Physical Science (PHYS 1XXXX Physical Sciences)

GEOS 100 Earth Science (EAPS 10000 Planet Earth/EAPS 19100 Intro Topics Earth Atm.)

BIOL 101/101L Plant & Animal Biology/Plant & Animal Biology Lab (BIOL 1XXXX/1XXXX Plant & Animal Biology/Plant & Animal Biology Lab)

BIOL 105/105L Principles of Biology 1/Principles of Biology Lab (BIOL 1XXXX/1XXXX Principles of Biology/Biology Lab)

BIOL 107/107L Essentials of Human Anatomy & Physiology/Human Anatomy & Physiology Lab (BIOL 1XXXX/1XXXX Essentials of Human Anatomy & Physiology/Human Anatomy & Physiology Lab)

BIOL 111/111L Anatomy & Physiology I/Anatomy & Physiology I Lab (BIOL 1XXXX/1XXXX Anatomy & Physiology I/Anat. & Phys. I Lab)

CHEM 100/100L Elementary Chemistry/Elementary Chemistry Lab (CHM 1XXXX/1XXXX Elementary Chemistry/Elementary Chem Lab)

CHEM 103/103L Introduction to Chemistry (CHM 1XXXX/1XXXX Intro to Chemistry/Intro to Chem Lab)

CHEM 104 Consumer Science (CHM 1XXXX Consumer Science)

CHEM 105/105L General Chemistry I/General Chemistry I Lab (CHM 1XXXX General Chemistry I/General Chemistry I Lab)

PHYT 101 Technical Physics (PHYS 21400 The Nature of Physics)

PHYS 105/105L General Physics I/General Physics Lab (PHYS 1XXXX/PHYS 1XXXX General Physics I/General Physics Lab I)

**9Science Foundation Selective *(satisfies Science for core, 3 credits)***

GEOS 105 Geography of Indiana (EAPS 1XXXX Geography of Indiana)

FACS 206 Fundamentals of Nutrition (NUTR 30300 Essentials of Nutrition)

AGRI 103 Fundamentals of Horticulture (HORT 10200 Fundamentals of Horticulture)

GEOS 204 Oceanography (EAPS 10400 Oceanography)

GEOS 207 World Geography (EAPS 2XXXX World Geography

GEOS 221 introduction to Weather and Climate (EAPS 2XXXX Intro to Weather and Climate)

**10Behavioral/Social Science Foundational Selective *(satisfies Human Cultures Behavioral/Social Science for core, 3 credits)***

PSYC 101 Introduction to Psychology (PSY 12000 Elementary Psychology)

PSYC 142 General Psychology (PSY 12000 Elementary Psychology)

SOCL 151 Principles of Sociology (SOC 10000 Introductory Sociology)

SOCL 154 Cultural Anthropology (ANTH 10000 Introductory Anthropology)

ECON 100 Elements of Economics (ECON 21000 Principles of Economics)

ECON 201 Microeconomics (ECON 25100 Microeconomics)

ECON 202 Macroeconomics (ECON 25200 Macroeconomics)

POLS 111 American National Government (POL 10100 American Government)

POLS 211 Intro to World Politics (POL 13000 Intro to International Relations)

SOCL 252 Social Problems (SOC 22000 Social Problems)

**11Humanities Foundational Selective *(satisfies Human Cultures Humanities for core, 3 credits)***

ARTT 110 Art Appreciation (AD 25500 Art Appreciation)

ARTT 116 Drawing I (AD 11300 Basic Drawing)

ARTT 130 Art History I (AD 22700 History of Art to 1400)

ARTT 131 Art History II (AD 22700 History of Art since 1400)

ARTT 213 Ceramics I (AD 24200 Ceramics I)

ARTT 215 Sculpture I (AD 27500 Beginning Sculpture)

FACS 156 Marriage and the Family (CDFS 1XXXX Marriage and the Family)

GRM 101 German 1 (GER 10100 German Level I/GER 1XXXX German Level I)

PHIL 111 Intro to Philosophy (PHIL 11000 Intro to Philosophy)

PHIL 212 Intro to Ethics (PHIL 11100 Ethics)

SPAN 101 Spanish 1 (SPAN 10100 Spanish Level I/SPAN 1XXXX Spanish Level I)

THEA 100 Theatre Appreciation (THTR 20100 Theatre Appreciation)

HIST 139 American History I (HIST 15100 American History to 1877)

HIST 140 American History II (HIST 15200 US Since 1877)

LITR 227 Intro to World Fiction (ENGL 23800 Intro to Fiction)

**12Foundation Selective (6 credits)**

**If all of the AS-Transfer courses aren’t met as shown here, (http://catalog.vinu.edu/preview\_program.php?catoid=23&poid=15324#universitycorecourselists), then students may need**

**additional courses as a Purdue student. If all the Foundation requirements are met, then these Foundation Selectives will convert to Free Electives.**

**13Free Electives (2 credits)**