

POWER PLANT TECHNOLOGY ASSOCIATE OF APPLIED SCIENCE DEGREE *PROGRAM PLACED ON MORATORIUM*

Moratorium = City College is not currently taking students into this program.

Montana has numerous power plants and hydroelectric power generating plants.

Previously, training in Power Plant Technology was only provided by the industry.

Now, City College at MSU Billings offers an Associate of Applied Science degree in this area. Students learn technical, electrical laws, basic systems of a power plant, mechanical and safety systems during this four-semester program offering. Equipment operations and power plant control are also discussed in detail. Power plant simulators give students a realistic feel for actual power plant control room activities. A hazardous materials technician level 3 certificate is awarded as part of the safety training.

Graduates will be prepared for entry level apprenticeship training and qualification at nuclear, fossil fuel, and other types of electrical power generating facilities. Within any power plant, there are several different entry-level opportunities including Operations, Mechanical Maintenance, Electrical Maintenance, and Instrumentation and Control Technicians. See our website at www.msbillings.edu/careers for graduate data.

Power Plant is a spring start program only. The program has been approved as a pre-apprenticeship program with the International Brotherhood of Electrical Workers (IBEW). See an advisor for more information

Upon successful completion of this program a student will be able to:

- Explain the purpose and operation of major equipment and systems used in power plants.
- Read P&ID'S and logic diagrams used in power plants.
- Outline steps needed to place major power plant systems into service.

Before a student can be accepted into the Power Plant Technology Program, competency in Math and English must be demonstrated. This may be done by:

- Receiving a passing score on the Compass Placement Test that indicates adequate preparation to enroll in WRIT 122 and M 114
- Transfer of appropriate credits
- Current ACT/SAT scores in the required range showing readiness to take WRIT 122 and M 114

If none of the above criteria are met, a student must complete the necessary prerequisite English and math classes identified in this catalog (WRIT 104 and/or M 065 and M 111). Check with the Advising Center to determine how you can meet these requirements.

| Code | Title | Credits |
|-------------------------|--------------------------------|---------|
| Required Courses | | |
| BGEN 105B | Introduction to Business | 3 |
| CAPP 120 | Introduction to Computers | 3 |
| COMX 106 | Comm in a Dynamic Workplace | 3 |
| COMX 111 | Intro to Public Speaking | 3 |
| M 114 | Extended Technical Mathematics | 3 |
| PPT 101 | Fund of Process Technology | 4 |
| PPT 102 | Fund of Process Technology Lab | 1 |

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|-------------|--------------------------------|---|
| PPT 120 | Environ Awareness | 2 |
| PPT 130 | Process Diagrams for Proc Tech | 2 |
| PPT 135 | Instrument & Control Systems | 4 |
| PPT 136 | Instrument & Controls Lab | 1 |
| PPT 151 | Process Plant Safety I | 2 |
| PPT 161 | Process Plant Safety II | 2 |
| PPT 175 | Process Plant Sciences | 4 |
| PPT 176 | Process Plant Sciences Lab | 1 |
| PPT 207 | Boilers, Access & Basic Oprtns | 3 |
| PWRP 201 | Power Plant Equip & Oprtns | 3 |
| PWRP 203 | Energy Sources & Conversion | 3 |
| PWRP 210 | Turbines, Accessories & Bsc Op | 3 |
| PWRP 214 | Power Generation | 4 |
| PWRP 216 | Elect Systm Cmpnts & Prtctns | 3 |
| PWRP 218 | Adv Plant Oprtns & Trblshtng | 4 |
| PWRP 296 | Internship/Cooperative Educ | 2 |
| TRID 160 | Hazrdz Mtrl Tech Gen Trng | 3 |
| TRID 185 | Intro Industrial Power Systems | 2 |
| TRID 186 | Intro Indstrl Pwr Systms Lab | 1 |
| WRIT 122 | Intro to Business Writing | 3 |
| or WRIT 121 | Intro to Technical Writing | |

Total Minimum Credits 72

Students should check the course descriptions for required prerequisites.

Suggested Plan of Study

| Code | Title | Credits |
|------------------------|--------------------------------|-----------|
| First Semester | | |
| CAPP 120 | Introduction to Computers | 3 |
| M 114 | Extended Technical Mathematics | 3 |
| PPT 101 | Fund of Process Technology | 4 |
| PPT 102 | Fund of Process Technology Lab | 1 |
| PPT 130 | Process Diagrams for Proc Tech | 2 |
| PPT 151 | Process Plant Safety I | 2 |
| TRID 185 | Intro Industrial Power Systems | 2 |
| TRID 186 | Intro Indstrl Pwr Systms Lab | 1 |
| Total | | 18 |
| Second Semester | | |
| WRIT 122 | Intro to Business Writing | 3 |
| or WRIT 121 | Intro to Technical Writing | |
| COMX 111 | Intro to Public Speaking | 3 |
| PPT 120 | Environ Awareness | 2 |
| PPT 135 | Instrument & Control Systems | 4 |
| PPT 136 | Instrument & Controls Lab | 1 |
| PPT 161 | Process Plant Safety II | 2 |
| PPT 175 | Process Plant Sciences | 4 |
| PPT 176 | Process Plant Sciences Lab | 1 |
| Total | | 20 |
| Third Semester | | |
| COMX 106 | Comm in a Dynamic Workplace | 3 |
| BGEN 105B | Introduction to Business | 3 |
| PPT 207 | Boilers, Access & Basic Oprtns | 3 |

2 *Power Plant Technology Associate of Applied Science Degree *Program placed on moratorium**

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|-----------------|--------------------------------|----|
| PWRP 201 | Power Plant Equip & Oprtns | 3 |
| PWRP 203 | Energy Sources & Conversion | 3 |
| TRID 160 | Hazrdz Mtrl Tech Gen Trng | 3 |
| Total | | 18 |
| Fourth Semester | | |
| PWRP 210 | Turbines, Accessories & Bsc Op | 3 |
| PWRP 214 | Power Generation | 4 |
| PWRP 216 | Elect System Cmpnts & Prtctns | 3 |
| PWRP 218 | Adv Plant Oprtns & Trblshtng | 4 |
| PWRP 296 | Internship/Cooperative Educ | 2 |
| Total | | 16 |