MEDICINE HAT COLLEGE

Name: _____
ID#: _____
Date Created: _____
Date Revised: _____

PROGRAM PLANNING GUIDE 2026-2027
Power Engineering Technology <u>Diploma</u>

The purpose of this program-planning guide is to help students track their progress within their chosen program. The information in this planning guide is accurate at the time of printing and is subject to change without notice. It is the students' responsibility to ensure the accuracy of their program and course choice. Students should use the program-planning guide dated the year in which they began the program. This guide should be used in conjunction with the official version of the Medicine Hat College Calendar, and calendars of appropriate transfer institutions, which are the final authorities regarding program requirements.

Year One

BLOCK ONE: September – November		
COURSE	**DATE**	**GRADE**
PLAC 111 Work Practicum **[3]** *(pr)* ***Prerequisite:*** *PLAB 116 & POWE 161 & POWE 162 & POWE 163 or permission of the Dean AND must possess valid First Aid with CPR and WHMIS*		
PLAB 116 First Lab **[4]** *(lab)* ***Prerequisite:*** *Acceptance into the Power Engineering Technology Program*		
POWE 161 Introductory Mechanics & Thermodynamics, Legislation and Safety **[4]** *(lec)* ***Prerequisite:*** *Acceptance into the Power Engineering Technology Program*		
POWE 162 Introductory Electricity and Instrumentation, Materials, Welding and Safety **[4]** *(lec)* ***Prerequisite:*** *Acceptance into the Power Engineering Technology Program*		
POWE 163 Introductions to Boilers, Environment, and Communication **[4]** *(lec)* ***Prerequisite:*** *Acceptance into the Power Engineering Technology Program*		
BLOCK TWO: December – February		
COURSE	**DATE**	**GRADE**
PLAB 117 Second Lab **[4]** *(lab)* ***Prerequisite:*** *PLAB 116*		
POWE 166 Lubrication, Pumps, Compressor, Boiler Safety and Operation **[4]** *(lec)* ***Prerequisite:*** *Acceptance into the Power Engineering Technology Program*		
POWE 167 Maintenance, Water Treatment, Prime Movers / Engines and Auxiliary Building Systems **[4]** *(lec)* ***Prerequisite:*** *Acceptance into the Power Engineering Technology Program*		
POWE 168 Refrigeration & Air Conditioning and Types of Plants **[4]** *(lec)* ***Prerequisite:*** *Acceptance into the Power Engineering Technology Program*		
BLOCK THREE: February – May		
COURSE	**DATE**	**GRADE**
PLAB 118 Third Lab **[4]** *(lab)* ***Prerequisite:*** *PLAB 117 & ABSA Fourth Class Certificate of Competency (or other regulatory body equivalent certificate)*		
POWE 151 Intermediate Mechanics & Thermodynamics **[4]** *(lec)* ***Prerequisite:*** *POWE 161*		
POWE 152 Metallurgy **[3]** *(lec)* ***Prerequisite:*** *POWE 162*		

POWE 153 Codes & Drawings **[3]** *(lec)* ***Prerequisite:*** *Acceptance into the Power Engineering Technology Program*		
POWE 154 Intermediate Electricity & Instrumentation **[4]** *(lec)* ***Prerequisite:*** *POWE 162*		

Year Two

BLOCK FOUR: September – December		
COURSE	**DATE**	**GRADE**
PLAB 219 Fourth Lab **[4]** *(lab)* ***Prerequisite:*** *PLAB 118 or PLAB 201 (in special circumstances ONLY) & ABSA Fourth Class Certificate of Competency (or other regulatory body equivalent certificate)*		
POWE 260 Intermediate Boilers **[4]** *(lec)* ***Prerequisite:*** *POWE 143 or POWE 163, and POWE 166*		
POWE 261 Intermediate Prime Movers **[4]** *(lec)* ***Prerequisite:*** *POWE 146 or POWE 167, and POWE 166*		
POWE 262 Water Treatment & Special Equipment **[4]** *(lec)* ***Prerequisite:*** *POWE 143 or POWE 167, and POWE 166 and POWE 168*		
BLOCK FIVE: January – April		
COURSE	**DATE**	**GRADE**
POWE 265 Advanced Boilers **[3]** *(lec)* ***Prerequisite:*** *POWE 260*		
POWE 266 Advanced Pumps & Water Treatment **[3]** *(lec)* ***Prerequisite:*** *POWE 261 and POWE 262*		
POWE 270 Advanced Codes **[3]** *(lec)* ***Prerequisite:*** *POWE 153*		
POWE 271 Plant Installation & Management **[3]** *(lec)* ***Prerequisite:*** *Acceptance into the Power Engineering Technology Program*		
POWE 272 Advanced Mechanics **[4]** *(lec)* ***Prerequisite:*** *POWE 151*		
POWE 280 Advanced Thermodynamics **[4]** *(lec)* ***Prerequisite:*** *POWE 151*		
POWE 281 Advanced Metallurgy **[4]** *(lec)* ***Prerequisite:*** *POWE 152*		
POWE 282 Power Engineering Report **[3]** ***Prerequisite:*** *PLAB 219 and must have a 4th class Power Engineering Ticket*		

Continuation Requirements:

- Prerequisite grades must be C- or higher.

Program progression requirements:

- Students must have their ABSA 4th Class Certificate of Competency (or equivalent) to continue into Year 2 (Block 4).

Graduation Requirements:

- Obtain a minimum grade of C- in all POWE and PLAB courses.
- Achieve mandatory 100% attendance in all lab courses (PLAB).

Time Limit for Program Completion:

- Students are allowed up to five years to complete the diploma route.

Program Notes:

- PLAC 111 (84-hour unpaid industrial work placement) is scheduled for the last two weeks of Block One of Year One. Students are responsible for cost of obtaining safety certification in Standard First Aid with CPR and WHMIS ***before*** being eligible for PLAC 111 (Work Practicum). Copies of these safety certificates must be on file with the PLAC 111 instructor by the date stated in the course outline.
- Current ABSA regulations:
    - 4th Class Power Engineering Certificate of Competency after successful completion of Blocks 1 and 2; and passing the ABSA exams.
    - 3rd Class Power Engineering Certificate of Competency after successful completion of Blocks 3 and 4; passing the ABSA exams; and completing ABSA regulated work experience.
    - Students are required to **independently** find three months of "Steam Time", complete the two-year college program, and pass the ABSA 3rd class exams before a 3rd class certificate is awarded.
    - 2nd class ABSA exams can be written after being awarded 3rd class certificate.