**CURRICULUM COMMITTEE MEETING**

**December 1, 2017**

**Present:** Mary Cornelio, Pam Buck, Gail Roy, Dave Raymond, Dwight Clayton, Michelle Collins, Jan Grieco, Shannon Cook, Betsy Harris, Bill Egeler, Jon Blanchard, Heidi Carter, JR Kierstead, AJ Gagnon, Maureen Connell, Eileen McDougal, Nancy Gagnon, President Crowley and Dottie Martin

**Absent:** Tammy Nelson, Bob Collins and Nancy Cowett

The following curriculum changes were approved by the NMCC Curriculum Committee at the **December 1, 2017** meeting.

**TRADE TECH**

**Automotive Collision Repair AAS**

**Program Revision**

**Effective Fall 2018 C L CR**

**First Semester Change:** Add COL103 College Success 1 0 1

**Second Semester Change:** Delete General Education Elective 1 0 1

**Automotive Technology AAS**

**Program Revision**

**Effective Fall 2018**

**First Semester Change:** Add COL103 College Success 1 0 1

**Third Semester Change:** Delete General Education Elective 1 0 1

**Building Construction Technology AAS**

**New Course: DRR2xx Architectural Drafting** 1 Class Hour/3 Lab Hours 2 Credits

**Effective Fall 2018**

**Graded Course: Yes Major Course Designation: Yes**

**Course Description:** This course is a basic residential design and develop course. Students will learn the proper use of basic cad, drawing techniques, and graphic presentation of wood frame construction details. Students will be able to understand the drawings required for a set of building plans. Students will be introduced to CAD software. They will develop, design and draft various assignments including the student’s final residential project.

**New Course: SUR214 Construction Surveying** 1 Class Hour/3 Lab Hours 2 Credits

**Effective Fall 2018**

**Graded Course: Yes Major Course Designation: Yes**

**Course Description:** This is an introductory course into the basic requirements of construction survey techniques. The emphasis is on proper use of equipment, layout of horizontal angles, determining distance, elevation and slops, layout, and the preparation of site plans from field data. Students will also increase their skills in the preparation and interpretation of civil engineering drawings including site, grading and utility plans. Students who successfully complete the course can expect to gain skills necessary to become entry-level survey party technicians working for engineers, contractors, architects and surveyors. Prerequisite: MAT119 Applied Mathematics

**Program Revision:**

**Effective Fall 2018 C L CR**

**First Semester Change:** Add COL103 College Success 1 0 1

 Add SAE117 Occupational Safety 1 0 1

 Delete SAE119 Construction Safety 3 0 3

**Second Semester Change:** Delete General Education Elective 1 0 1

**Third Semester Change:** Add DRR2xx Arch Drafting 1 3 2

Add SUR2xx Construction Surveying 1 3 2

Delete DRR212 Arch Drafting I 2 3 3

 Delete SUR213 Construction Surveying 2 2 3

**Building Construction Technology Certificate**

**Program Revision:**

**Effective Fall 2018**

**First Semester Change:** Add SAE117 Occupational Safety 1 0 1

 Delete SAE119 Construction Safety 3 0 3

**Computer & Networking Technology AAS**

**New Course: COE228 Security+ Certification**  2 Class Hour/2 Lab Hours 3 Credits

**Effective Fall 2018**

**Graded Course: Yes Major Course Designation: Yes**

**Course Description:** Teaches students the skills and knowledge necessary to understand core concepts of computer security. Explained are key security concepts, including understanding encryption technologies, securing communications and applications, and responding to incidents. The course helps prepare students for the Security+ Certification exam administered by the Computing Technology Industry Association (CompTIA). The Security+ Certification exam is considered as part of the final grade for the course. The cost of the exam is approximately $197 (2016 academic pricing).

**Program Revision:**

**Effective Fall 2018**

**First Semester Change:** Add COL103 College Success 1 0 1

**Fourth Semester Change:** Add COE2xx Security+ Certification 2 2 3

Delete General Education Elective 1 0 1

 Delete Elective 2 0 2

**Diesel Hydraulics Technology AAS**

**Program Revision:**

**Effective Fall 2018**

**First Semester Change:** Add COL103 College Success 1 0 1

 Move WEI101 Intro to Welding to

 Semester 2 2 2 3

**Second Semester Change:** Delete General Education Elective 1 0 1

 Move WEI133 Electric Welding to

 Semester 3 2 2 3

**DIESEL HYDRAULICS TECHNOLOGY CERTIFICATE**

**Program Revision:**

**Effective Fall 2018**

**First Semester Change:** Add SAE121 Industrial Safety 3 0 3

 Move WEI101 Intro to Welding to

 Semester 2 2 2 3

**Second Semester Change:** Delete WEI133 Electric Welding 2 2 3

**Electrical Construction & Maintenance AAS**

**Program Revision:**

**Effective Fall 2018 C L CR**

**First Semester Change:** Add COL103 College Success 1 0 1

**Second Semester Change:** Delete SAE119 Construction Safety 3 0 3

**Third Semester Change:** Delete General Education Elective 1 0 1

**Plumbing & Heating AAS**

**New Course: PLH101 Plumbing Technology**  3 Class Hour/0 Lab Hours 3 Credits

**Effective Fall 2018**

**Graded Course: Yes Major Course Designation: Yes**

**Course Description:** This course will introduce the student to the fundamental principles of plumbing technology. The course stresses quality plumbing installations along with the basic knowledge of how plumbing systems function with relationship to the Maine State Plumbing Code. The course begins with safety, fundamentals of plumbing drainage, venting of the plumbing system, potable water pipe installation, subsurface drainage systems, pipe and fitting identification and several other basic principles of the art of plumbing. Areas to be covered include: hand and power tool safety, pipe and fitting identification, common methods of pipe fitting assembly such as copper, IPS, PEX, and PVC systems, drain waste and vent system fundamentals and sizing, potable water fundamentals, fixture installation and plumbing service.

**New Course: PLH126 Water Pumps and Water Treatment**  1 Class Hour/2 Lab Hours 2 Credits

**Effective Fall 2018**

**Graded Course: Yes Major Course Designation: Yes**

**Course Description:** This course will introduce students to fundamentals of residential water pumps and water treatment. Review of well types, the hydrological cycle, basic operation of jet and submersible pumps, tank and pump accessories, troubleshooting and a review of Maine laws that apply to installation of water pumps will be the major focus of the water pump portions of this course.

**Program Revision:**

**Effective Fall 2018**

**First Semester Change:** Add COL103 College Success 1 0 1

 Add PLH101 Plumbing Technology 3 0 3

 Delete PLH108 Plumbing Technology 2 0 2

 Delete PLH115 Water Pump Basics 1 0 1

**Second Semester Change:** Add PLH126 Water Pump & Water Treatment 1 2 2

 Delete PLH128 Solar Thermal 1 2 2

 Delete General Education Elective 1 0 1

**Third Semester Change:** Delete ELE117 Heating & Cooling Controls 2 3 3

**Plumbing Certificate**

**Program Revision: C L CR**

**Effective Fall 2018**

**First Semester Change:** Add PLH101 Plumbing Technology 3 0 3

 Delete PLH108 Plumbing Technology 2 0 2

 Delete PLH115 Water Pump Basics 1 0 1

**Second Semester Change:** Add PLH126 Water Pump & Water Treatment 1 2 2

 Delete PLH128 Solar Thermal 1 2 2

**Heating Certificate**

**Program Revision:**

**Effective Fall 2018**

**First Semester Change:** Delete ELE117 Heating & Cooling Controls 2 3 3

**Precision Machining Technology AAS**

**New Course: PMM235 Multi-Axis Milling**  1 Class Hour/3 Lab Hours 2 Credits

**Effective Fall 2018**

**Graded Course: Yes Major Course Designation: Yes**

**Course Description:** This intermediate Edgecam training course provides insight into effectively using the software for multi-axis CNC milling. This course is geared to users who want to gain a deeper understanding of creating toolpath for multiple setups, multiple parts and rotary axis applications. By learning through hands—on exercises, students will learn software functions for changing work coordinate systems within a program, 4th and 5th axis indexing, using multiple setups within a single part, and machining multiple parts. The course provides the Edgecam user with the software knowledge needed for multi-plane rotary axis and multiple part milling applications.

**Program Revision:**

**Effective Fall 2018**

**First Semester Change:** Add COL103 College Success 1 0 1

 Move SAE117 Occupational Safety to

 Semester 2 1 0 1

**Second Semester Change:** Delete General Education Elective 1 0 1

**Third Semester Change:** Move PHY150 Physics to Semester 4 3 2 4

**Fourth Semester Change:** Add PMM235 Multi-Axis Milling 1 3 2

 Move COM221 Tech Communications to

 Semester 3 3 0 3

 Move Humanities Elective to Semester 3 3 0 3

**Water Treatment Technology AAS (New program/curriculum sheets attached)**

**New Course: WTT103 Intro to Water Treatment Technology** 3 Class Hour/0 Lab Hours 3 Credits

**Effective Fall 2018**

**Graded Course: Yes Major Course Designation: Yes**

**Course Description:** This course is designed to teach students the skills they need to succeed in the WTT program and at NMCC. It will provide an overview of how to access classroom lectures, assignments and NMCC resources using the latest online technologies and the NMCC Portal Interface. It will provide an introduction into using computer software programs used to complete homework assignments as well as introduce how these programs are used by professionals in the WTT industry. This course will also introduce students to fundamental mathematical and scientific concepts essential to understanding the water and wastewater industry. It will prepare students to succeed in WTT211 Water Treatment II, WTT113 Water Plant Operation and WTT201 Water Distribution Systems.

**New Course: WTT113 Water Plant Operation** 3 Class Hour/0 Lab Hours 3 Credits

**Effective Fall 2018**

**Graded Course: Yes Major Course Designation: Yes**

**Course Description:** This course is designed to introduce students to the fundamentals required to understand the regulatory requirements and the day-to-day operational processes used by Water Treatment Plants. It will also provide an introduction into various physical and chemical processes used within the industry. This class will introduce the student to documentary and record keeping procedures as well as utilizing computer software and analysis techniques. A brief introduction into the interface between plant operation and water distribution systems is provided. This course will prepare students for the Maine Department of Health and Human Services Water Plant Operator Exam Levels I and II and the Water Distribution Exam Levels I and II.

**New Course: WTT211 Water Treatment II**  3 Class Hour/2 Lab Hours 4 Credits

**Effective Fall 2018**

**Graded Course: Yes Major Course Designation: Yes**

**Course Description:** This course is designed to reinforce an understanding of the regulatory requirements and day-to-day operational processes used by most Water Treatment Plants. It will strengthen the understanding of mathematical and scientific principles required to understand the biologic, chemical and physical processes used in Water Treatment Plants with a review of those processes. The student will review documentary and record keeping procedures as well as utilizing computer software and analysis techniques used in the industry. A brief of the interface between treatment plant operation and water collection systems. This course will prepare students for the Maine Department of Environmental Protection Water Plant Operator Exam Levels I and II and the Water Collection Exam Levels I and II.

**New Course: WTT221 Wastewater Treatment II**  3 Class Hour/2 Lab Hours 4 Credits

**Effective Fall 2018**

**Graded Course: Yes Major Course Designation: Yes**

**Course Description:** This course is designed to reinforce an understanding of the regulatory requirements and day-to-day operational processes used by most Wastewater Treatment plants. It will strengthen the understanding of mathematical and scientific principles required to understand the biologic, chemical and physical processes used in Wastewater Treatment Plants with a review of those processes. The student will review documentary and recordkeeping procedures as well as utilizing computer software and analysis techniques used in the industry. A brief of the interface between treatment plant operation and wastewater collection systems. This course will prepare students for the Maine Department of Environmental Protection Wastewater Plant Operator Exam Levels I and II and the Wastewater Collection Exam Levels I and II.

**New Course: WTT120 Treatment Plant Safety**  3 Class Hour/0 Lab Hours 3 Credits

**Effective Fall 2018**

**Graded Course: Yes Major Course Designation: Yes**

**Course Description:** This course is designed to reinforce the commitment of students to the necessity of Safety Requirements within the Water and Wastewater Treatment Industry. It includes discussion of the hazards from the biological, chemical and physical processes used by the Water/Wastewater Treatment Industries. This course will assist in the preparation for the Maine Department of Health and Human Services Water Plant Operator, Water Distribution Examinations Levels I and II as well as the Maine Department of Environmental Protection Wastewater Collection System and Wastewater Plant Operator Examinations Levels I and II.

**New Course: WTT124 Wastewater Plant Operation**  3 Class Hour/0 Lab Hours 3 Credits

**Effective Fall 2018**

**Graded Course: Yes Major Course Designation: Yes**

**Course Description:** This course is designed to introduce students to the fundamentals required to understand the regulatory requirements and the day-to-day operational processes used by Water Treatment Plants. It will also provide an introduction into various physical and chemical processes used within the industry. This class will introduce the student to documentary and record keeping procedures as well as utilizing computer software and analysis techniques. A brief introduction into the interface between plant operation and wastewater collection systems. This course will prepare students for the Maine Department of Environmental Protection Wastewater

Exam Levels I and II.

**Wind Power Technology Certificate**

**Program Revision: C L CR**

**Effective Fall 2018**

**First Semester Change:** Add COL103 College Success 1 0 1

**BUSINESS TECHNOLOGY**

**Accounting AAS**

**Program Revision: C L CR**

**Effective Fall 2018**

**Second Semester Change:** Move Humanities Elective to Semester 4 3 0 3

**Third Semester Change:** Delete ACC242 Accounting Info Systems II 3 0 3

 Move ECO213 Macroeconomics to Semester 2 3 0 3

**EMERGENCY MEDICAL SERVICES**

**Course Name Changes**

**Effective Fall 2018**

* **EMS122** Change from Intermediate Clinical Externship I **to** AEMT Clinical Externship I
* **EMS126** Change from Intermediate Clinical Externship II to AEMT Clinical Externship II
* **EMS130** Change from EMT-Intermediate Skills Seminar to AEMT Skills Seminar