

Department of Mechanical Engineering

Request for Pathway Certificate

Students, who complete 6 units in one of the Pathways listed, can request a Pathway Certificate from the Dept. of Mechanical Engineering. The Pathway will not appear on the Student's transcript. A Student may apply for a maximum of two Pathways, the Pathways may share up to 3 units of courses.

Advanced Materials

- MECH 472: Introduction to Electron Microscopy
- MECH 473: Ferrous and Non-Ferrous Metals
- MECH 481: Biomaterials and Tissue Engineering
- Topic, Thesis, or Project courses**

Biomedical Engineering

- MECH 448: Introduction to Musculoskeletal Biomechanics
- MECH 452: Microfluidics for Biomedical and Energy Applications
- MECH 472: Introduction to Electron Microscopy
- MECH 481: Biomaterials and Tissue Engineering
- MECH 483: Mechanics and Energy conversion for Living Cells
- Topic, Thesis, or Project courses**

Computer Aided Engineering and Advanced Manufacturing

- MECH 410: Computer-Aided Design and Engineering
- MECH 420: Finite Element Applications
- MECH 460: Computer-Aided Manufacturing
- MECH 466: Microelectromechanical Systems
- MECH 495: Computational Fluid Dynamics and Heat Transfer
- MECH 497: Green Vehicle Technology Project
- Topic, Thesis, or Project courses**

Energy Systems

- MECH 431: Advanced Fluid Mechanics
- MECH 442: Heating, Ventilation, and Air Conditioning Systems
- MECH 443: Advanced Thermodynamics
- MECH 444: Wind Power Systems
- MECH 445: Cryogenic Engineering
- MECH 446: Introduction to Ocean Engineering
- MECH 447: Energy Systems
- MECH 449: Fuel Cell Technology
- MECH 452: Microfluidics for Biomedical and Energy Applications
- MECH 459: Fundamentals of Hybrid Electric Vehicles
- MECH 493: Design of Thermo-Fluid Systems
- MECH 494: Thermofluids and Introduction to Mass Transfer
- MECH 497: Green Vehicle Technology Project
- Topic, Thesis, or Project courses*See next page.*

Mechatronics

- MECH 421: Mechanical Vibrations
- MECH 430: Robotics
- MECH 455: Instrumentation
- MECH 458: Mechatronics
- MECH 459: Fundamentals of Hybrid Electric Vehicles
- MECH 485: Mechanism and Manipulator Synthesis
- Topic, Thesis, or Project courses**

Thermo-Fluids and Aerodynamics

- MECH 431: Advanced Fluid Mechanics
- MECH 442: Heating, Ventilation, and Air Conditioning Systems
- MECH 443: Advanced Thermodynamics
- MECH 444: Wind Power Systems
- MECH 446: Introduction to Ocean Engineering
- MECH 447: Energy Systems
- MECH 475: Aircraft Design
- MECH 492: Transport Phenomena
- MECH 493: Design of Thermo-Fluid Systems
- MECH 494: Thermofluids and Introduction to Mass Transfer
- MECH 495: Computational Fluid Dynamics and Heat Transfer
- Topic, Thesis, or Project courses**

**Topic, Thesis, or Project courses*
MECH 450A-F: Special Topics
MECH 498: Honours Thesis
MECH 499: Technical Project

***Students taking MECH 450A-F, MECH 498, and MECH 499 are required to request confirmation from the Undergrad Secretary that the topic applies to the specific pathway (mech.sec@uvic.ca).*

Department of Mechanical Engineering

Request for Pathway Certificate

Student Name: _____

Date: _____

UVic Email: _____

Student #: V00 _____

Pathway 1

Advanced Materials

Energy Systems

Biomedical Engineering

Thermo-Fluids and Aerodynamics

Computer Aided Engineering and Advanced Manufacturing

Mechatronics

Course #: _____ Course #: _____

Course #: _____ Course #: _____

Special Topic, Thesis, or Project title(s) (if applicable):

Pathway 2

Advanced Materials

Energy Systems

Biomedical Engineering

Thermo-Fluids and Aerodynamics

Computer Aided Engineering and Advanced Manufacturing

Mechatronics

Course #: _____ Course #: _____

Course #: _____ Course #: _____

Special Topic, Thesis, or Project title(s) (if applicable):

Student Signature: _____ Date: _____

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Student has applied for Graduation: Yes No

Student has completed all listed courses: Yes No

Special Topic, Thesis, or Project courses have been approved for the specified Pathway(s): Yes No

Notes:

Undergraduate Director Signature:

Date: