**Mech and Aero - Joint (MAAJ)**

**Mechanical and Aerospace Engineering (Joint) (MAAJ) Courses**

- **MAAJ 5001 [0.5 credit] (MCG 5101)**
  - Theory of Elasticity

- **MAAJ 5002 [0.5 credit] (MCG 5102)**
  - Advanced Stress Analysis

- **MAAJ 5003 [0.5 credit] (MCG5103)**
  - Theory Perfectly Plastic Solid

- **MAAJ 5004 [0.5 credit] (MCG 5104)**
  - Theory of Plates and Shells

- **MAAJ 5005 [0.5 credit] (MCG 5105)**
  - Continuum Mechanics

- **MAAJ 5006 [0.5 credit] (MCG 5106)**
  - Advanced Topics in Elasticity

- **MAAJ 5007 [0.5 credit] (MCG 5107)**
  - Adv. Dynamics w/Applications

- **MAAJ 5008 [0.5 credit] (MCG 5108)**
  - Finite Element Analysis

- **MAAJ 5009 [0.5 credit] (MCG 5109)**
  - Topics:Finite Element Analysis

- **MAAJ 5050 [0.5 credit]**
  - Fundamentals of Fluid Dynamics
  - Also listed as MECH 5000.

- **MAAJ 5059 [0.5 credit]**
  - Environmental Fluid Mechanics
  - Includes: Experiential Learning Activity
  - Also listed as MECH 5009.

- **MAAJ 5100 [0.5 credit] (MCG 5110)**
  - Micromechanics of Solids

- **MAAJ 5101 [0.5 credit] (MCG 5111)**
  - Gas Dynamics

- **MAAJ 5104 [0.5 credit] (MCG 5114)**
  - Analy and Des: Pressure Vessels

- **MAAJ 5105 [0.5 credit] (MCG 5115)**
  - Non-Linear Optimization

- **MAAJ 5107 [0.5 credit] (MCG 5117)**
  - Intro to Composite Materials
  - Includes: Experiential Learning Activity

- **MAAJ 5108 [0.5 credit] (MCG 5118)**
  - Introduction to Plasticity

- **MAAJ 5109 [0.5 credit] (MCG 5119)**
  - Fracture Mechanics

- **MAAJ 5151 [0.5 credit]**
  - Dynamics and Aerodynamics of Flight
  - Includes: Experiential Learning Activity
  - Also listed as MECH 5101.

- **MAAJ 5155 [0.5 credit]**
  - Orbital Mechanics and Space Control
  - Includes: Experiential Learning Activity
  - Also listed as MECH 5105.

- **MAAJ 5206 [0.5 credit] (MCG 5126)**
  - Deformation of Materials

- **MAAJ 5209 [0.5 credit] (MCG 5129)**
  - Hot Working of Metals

- **MAAJ 5254 [0.5 credit]**
  - Fundamentals of Combustion
  - Also listed as MECH 5204.

- **MAAJ 5255 [0.5 credit]**
  - Building Performance Simulation
  - Includes: Experiential Learning Activity
  - Also listed as MECH 5205.

- **MAAJ 5301 [0.5 credit] (MCG 5131)**
  - Heat Transfer by Conduction

- **MAAJ 5302 [0.5 credit] (MCG 5132)**
  - Heat Transfer by Convection

- **MAAJ 5303 [0.5 credit] (MCG 5133)**
  - Heat Transfer by Radiation

- **MAAJ 5304 [0.5 credit] (MCG 5134)**
  - Heat Transfer w/Phase Change

- **MAAJ 5306 [0.5 credit] (MCG 5136)**
  - Fluid Mech and Heat Transfer

- **MAAJ 5307 [0.5 credit] (MCG 5137)**
  - Solid Mechanics and Materials

- **MAAJ 5308 [0.5 credit] (MCG 5138)**
  - Topics in Mech Engineering

- **MAAJ 5352 [0.5 credit]**
  - Instrumentation Techniques
  - Also listed as MECH 5302.

- **MAAJ 5354 [0.5 credit]**
  - Computational Fluid Dynamics of Compressible Flow
  - Also listed as MECH 5304.

- **MAAJ 5356 [0.5 credit] (MCG 5306)**
  - Theory of Subsonic Flows

- **MAAJ 5357 [0.5 credit] (MCG 5307)**
  - Theory of Supersonic Flows
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<td>MAAJ 5401</td>
<td>Statistical Thermodynamics</td>
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<td>MAAJ 5408</td>
<td>Theorie d'Ecoulement Visqueux</td>
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<td>MAAJ 5409</td>
<td>Theorie de Turbulence</td>
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<td>MAAJ 5451</td>
<td>Turbomachinery</td>
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<td>MAAJ 5452</td>
<td>Superalloys and Ceramic-Metal Matrix Composites</td>
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<td>MAAJ 5459</td>
<td>Two-Phase Flow and Heat Transfer</td>
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<td>MAAJ 5500</td>
<td>Mecanique de Fluides</td>
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<td>MAAJ 5506</td>
<td>Measurement of Fluid Mech</td>
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<td>MAAJ 5507</td>
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<td>MAAJ 5608</td>
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<td>MAAJ 5652</td>
<td>Failure Prevention</td>
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<td>Metallic Phases and Transformations</td>
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<tr>
<td>MAAJ 5800</td>
<td>Fibre Composite Materials II</td>
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MAAJ 5801 [0.5 credit] (MCG 5181)
Advanced Vibrations

MAAJ 5802 [0.5 credit] (MCG 5182)
Theory of Elastic Instability

MAAJ 5804 [0.5 credit] (MCG 5184)
Mechatronics

MAAJ 5805 [0.5 credit] (MCG 5185)
Multivariate Digital Control

MAAJ 5806 [0.5 credit] (MCG 5186)
Non-Linear Disc Dyn and Control

MAAJ 5850 [0.5 credit]
Special Topics in Mechanical and Aerospace Engineering
Also listed as MECH 5800.

MAAJ 5851 [0.5 credit] (MCG 5380)
Safety and Risk Assessment of Nuclear Power

MAAJ 5852 [0.5 credit]
Special Topics in Mechanical and Aerospace Engineering
Also listed as MECH 5802.

MAAJ 5853 [0.5 credit]
Special Topics in Mechanical and Aerospace Engineering
Also listed as MECH 5803.

MAAJ 5854 [0.5 credit]
Special Topics in Mechanical and Aerospace Engineering
Also listed as MECH 5804.

MAAJ 5855 [0.5 credit]
Special Topics in Mechanical and Aerospace Engineering
Also listed as MECH 5805.

MAAJ 5857 [0.5 credit]
Special Topics in Mechanical and Aerospace Engineering
Also listed as MECH 5807.

MAAJ 5858 [0.5 credit]
Special Topics in Mechanical and Aerospace Engineering
Also listed as MECH 5808.

MAAJ 5901 [0.5 credit] (MCG 5191)
Combustion in Premixed Systems

MAAJ 5902 [0.5 credit] (MCG 5192)
Combustion in Diffusion System

Summer session: some of the courses listed in this Calendar are offered during the summer. Hours and scheduling for summer session courses will differ significantly from those reported in the fall/winter Calendar. To determine the scheduling and hours for summer session classes, consult the class schedule at central.carleton.ca

Not all courses listed are offered in a given year. For an up-to-date statement of course offerings for the current session and to determine the term of offering, consult the class schedule at central.carleton.ca.