Course progression map for 2021 commencing students

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E6001 Master of Advanced Engineering

Specialisation – Additive manufacturing

Entry level 2 program

<table>
<thead>
<tr>
<th>YEAR 1 Semester 1</th>
<th>ENG5001 Advanced engineering data analysis</th>
<th>MTE5887 Additive manufacturing of polymeric and functional materials</th>
<th>MEC5891 Design for additive manufacturing</th>
<th>Enhancement unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>YEAR 1 Semester 2</td>
<td>ENG5002 Engineering entrepreneurship Or ENG5008 Work integrated learning</td>
<td>MTE5886 Additive manufacturing of metallic materials</td>
<td>MEC5881 Engineering systems performance analysis</td>
<td>ENG5005 Research methods</td>
</tr>
</tbody>
</table>

Enhancement units

- ACF5903 Accounting for business
- BTF5910 Corporate sustainability regulation
- CHE5882 Biomass and biorefineries
- CHE5883 Nanostructured membranes for separation and energy production
- ECE5886 Smart grids
- ECF5963 Economics
- ENG5100 Professional engineer in organisation and society
- MEC5882 Instrumentation, sensing and monitoring
- MGF5600 Managing innovation
- MGF5011 Commercialisation
- MGF5020 Business ethics in a global environment
- MKF5955 Marketing management - Theory and practice
- MTE5883 Environmental durability and protection of metals and engineering materials
- MTE5885 Biomaterials and biomechanics

The unit listings are subject to updates
Course progression map for 2021 commencing students

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E6001 Master of Advanced Engineering

Specialisation – Chemical engineering

Entry level 2 program

<table>
<thead>
<tr>
<th>YEAR 1</th>
<th>Semester 1</th>
<th>ENG5001</th>
<th>Advanced engineering data analysis</th>
<th>CHE5881</th>
<th>Advanced reaction engineering</th>
<th>CHE5884</th>
<th>Process modelling and optimisation</th>
<th>Enhancement unit</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>YEAR 1</th>
<th>Semester 2</th>
<th>ENG5002</th>
<th>Engineering entrepreneurship</th>
<th>CHE5882</th>
<th>Biomass and biorefineries</th>
<th>CHE5883</th>
<th>Nanostructured membranes for separation and energy production</th>
<th>ENG5005 Research methods</th>
</tr>
</thead>
</table>

Enhancement units

- ACF5903 Accounting for business
- BTF5910 Corporate sustainability regulation
- ECE5886 Smart grids
- ECF5963 Economics
- ENG5100 Professional engineer in organisation and society
- MEC5881 Engineering systems performance analysis
- MEC5882 Instrumentation, sensing and monitoring
- MGF5600 Managing innovation
- MGF5011 Commercialisation
- MGF5020 Business ethics in a global environment
- MKF5955 Marketing management - Theory and practice
- MTE5883 Environmental durability and protection of metals and engineering materials
- MTE5885 Biomaterials and biomechanics
- MTE5886 Additive manufacturing of metallic materials
- MTE5887 Additive manufacturing of polymeric and functional materials

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Course progression map for 2021 commencing students

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E6001 Master of Advanced Engineering
Specialisation – Civil engineering (Infrastructure systems)

Entry level 2 program

<table>
<thead>
<tr>
<th>YEAR 1 Semester 1</th>
<th>ENG5001 Advanced engineering data analysis</th>
<th>CIV5885 Infrastructure dynamics</th>
<th>CIV5886 Infrastructure geomechanics</th>
<th>Enhancement unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>YEAR 1 Semester 2</td>
<td>ENG5002 Engineering entrepreneurship Or ENG5008 Work integrated learning</td>
<td>CIV5887 Infrastructure rehabilitation and monitoring</td>
<td>CIV5888 Advanced computational methods</td>
<td>ENG5005 Research methods</td>
</tr>
</tbody>
</table>

Enhancement units

- ACF5903 Accounting for business
- BTF5910 Corporate sustainability regulation
- CHE5882 Biomass and biorefineries
- CHE5883 Nanostructured membranes for separation and energy production
- CIV5301 Advanced traffic engineering
- CIV5302 Traffic engineering and management
- CIV5305 Travel demand modelling
- CIV5310 Infrastructure project and policy evaluation
- CIV5313 Asset management
- CIV5314 Planning urban mobility futures
- CIV5315 Applied transport economics
- CIV5316 Fundamentals of urban public transport
- CIV5322 Project risk management
- CIV5881 Ground water hydraulics
- CIV5882 Flood hydraulics and hydrology
- CIV5883 Surface water hydrology
- CIV5884 Water sensitive stormwater design
- CIV5889 Infrastructure information management
- ECE5886 Smart grids
- ECF5883 Economics
- ENG5100 Professional engineer in organisation and society
- MEC5881 Engineering systems performance analysis
- MEC5882 Instrumentation, sensing and monitoring
- MGF5600 Managing innovation
- MGF5011 Commercialisation
- MGF5020 Business ethics in a global environment
- MKF5955 Marketing management - Theory and practice
- MTE5883 Environmental durability and protection of metals and engineering materials
- MTE5885 Biomaterials and biomechanics
- MTE5886 Additive manufacturing of metallic materials
- MTE5887 Additive manufacturing of polymeric and functional materials

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Course progression map for 2021 commencing students

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E6001 Master of Advanced Engineering

Specialisation – Civil engineering (Transport)

Entry level 2 program

<table>
<thead>
<tr>
<th>YEAR 1</th>
<th>Semester 1</th>
<th>ENGS001 Advanced engineering data analysis</th>
<th>CIVS002 Traffic engineering and management</th>
<th>CIVS004 Intelligent transport</th>
<th>Enhancement unit</th>
</tr>
</thead>
</table>

| YEAR 1 | Semester 2 | ENGS002 Engineering entrepreneurship Or ENGS008 Work integrated learning | CIVS001 Advanced traffic engineering | CIVS014 Planning urban mobility futures | ENGS005 Research methods |

Enhancement units

- ACF5903 Accounting for business
- BTF5910 Corporate sustainability regulation
- CHE5882 Biomass and biorefineries
- CHE5883 Nanostructured membranes for separation and energy production
- CIVS005 Travel demand modelling
- CIVS010 Infrastructure project and policy evaluation
- CIVS013 Asset management
- CIVS015 Applied transport economics
- CIVS016 Fundamentals of urban public transport
- CIVS023 Project risk management
- CIVS081 Ground water hydraulics
- CIVS082 Flood hydraulics and hydrology
- CIVS083 Surface water hydrology
- CIVS084 Water sensitive stormwater design
- CIVS085 Infrastructure dynamics
- CIVS086 Infrastructure geomechanics
- CIVS087 Infrastructure rehabilitation and monitoring
- CIVS088 Advanced computational methods
- CIVS089 Infrastructure information management
- ECF5886 Smart grids
- ECF5883 Economics
- ENGS010 Professional engineer in organisation and society
- MEC5881 Engineering systems performance analysis
- MEC5882 Instrumentation, sensing and monitoring
- MGS5000 Managing innovation
- MGS5001 Commercialisation
- MGS5055 Business ethics in a global environment
- MNG5965 Marketing management - Theory and practice
- MTE5883 Environmental durability and protection of metals and engineering materials
- MTE5885 Biomaterials and biomechanics
- MTE5886 Additive manufacturing of metallic materials
- MTE5887 Additive manufacturing of polymeric and functional materials

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E6001 Master of Advanced Engineering

Specialisation – Civil engineering (Water)

Entry level 2 program

<table>
<thead>
<tr>
<th>YEAR 1</th>
<th>Semester 1</th>
<th>ENG5001 Advanced engineering data analysis</th>
<th>CIV5881 Ground water hydraulics</th>
<th>CIV5884 Water sensitive stormwater design</th>
<th>Enhancement unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>YEAR 1</td>
<td>Semester 2</td>
<td>ENG5002 Engineering entrepreneurship Or ENG5008 Work integrated learning</td>
<td>CIV5883 Surface water hydrology</td>
<td>CIV5882 Flood hydraulics and hydrology</td>
<td>ENG5005 Research methods</td>
</tr>
</tbody>
</table>

Enhancement units

- ACF5903 Accounting for business
- BTF5910 Corporate sustainability regulation
- CHE5882 Biomass and biorefineries
- CHE5883 Nanostructured membranes for separation and energy production
- CIV5301 Advanced traffic engineering
- CIV5302 Traffic engineering and management
- CIV5305 Travel demand modelling
- CIV5310 Infrastructure project and policy evaluation
- CIV5313 Asset management
- CIV5314 Planning urban mobility futures
- CIV5315 Applied transport economics
- CIV5316 Fundamentals of urban public transport
- CIV5323 Project risk management
- CIV5885 Infrastructure dynamics
- CIV5886 Infrastructure geomechanics
- CIV5887 Infrastructure rehabilitation and monitoring
- CIV5888 Advanced computational methods
- CIV5890 Infrastructure information management
- ECE5886 Smart grids
- ECF5953 Economics
- ENG5100 Professional engineer in organisation and society
- MEC5881 Engineering systems performance analysis
- MEC5882 Instrumentation, sensing and monitoring
- MGF5600 Managing innovation
- MGF5011 Commercialisation
- MGF5029 Business ethics in a global environment
- MKF5665 Marketing management - Theory and practice
- MTE5883 Environmental durability and protection of metals and engineering materials
- MTE5885 Biomaterials and biomechanics
- MTE5886 Additive manufacturing of metallic materials
- MTE5887 Additive manufacturing of polymeric and functional materials

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E6001 Master of Advanced Engineering
Specialisation – Electrical engineering

Entry level 2 program

<table>
<thead>
<tr>
<th>YEAR 1 Semester 1</th>
<th>ENG5001 Advanced engineering data analysis</th>
<th>ECE5881 Real-time system design</th>
<th>ECE5883 Advanced signal processing</th>
<th>Enhancement unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>YEAR 1 Semester 2</td>
<td>ENG5002 Engineering entrepreneurship Or ENG5008 Work integrated learning</td>
<td>ECE5882 Advanced electronics design</td>
<td>ECE5884 Wireless communications</td>
<td>ENG5005 Research methods</td>
</tr>
</tbody>
</table>

Enhancement units

- ACF5903 Accounting for business
- BTF5910 Corporate sustainability regulation
- CHE5862 Biomass and biorefineries
- CHE5883 Nanostructured membranes for separation and energy production
- ECE5886 Smart grids
- ECF5963 Economics
- ENG5100 Professional engineer in organisation and society
- MEC5881 Engineering systems performance analysis
- MEC5882 Instrumentation, sensing and monitoring
- MGF5600 Managing innovation
- MG5011 Commercialisation
- MG5020 Business ethics in a global environment
- MKF5955 Marketing management - Theory and practice
- MTE5883 Environmental durability and protection of metals and engineering materials
- MTE5885 Biomaterials and biomechanics
- MTE5886 Additive manufacturing of metallic materials
- MTE5887 Additive manufacturing of polymeric and functional materials

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E6001 Master of Advanced Engineering
Specialisation – Materials engineering

Entry level 2 program

<table>
<thead>
<tr>
<th>YEAR 1</th>
<th>ENGG001 Advanced engineering data analysis</th>
<th>MTE5882 Advanced polymeric materials</th>
<th>MTE5884 Materials for energy technologies</th>
<th>Enhancement unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>YEAR 1</td>
<td>ENGG002 Engineering entrepreneurship</td>
<td>MTE5881 Applied crystallography in advanced materials characterisation</td>
<td>MTE5883 Environmental durability and protection of metals and engineering materials</td>
<td>ENG5005 Research methods</td>
</tr>
<tr>
<td>Semester 2</td>
<td>Or ENGG008 Work integrated learning</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Enhancement units

- ACF5903 Accounting for business
- BTF5910 Corporate sustainability regulation
- CHE5882 Biomass and biorefineries
- CHE5883 Nanostructured membranes for separation and energy production
- ECE5886 Smart grids
- ECF5953 Economics
- ENGG5100 Professional engineer in organisation and society
- MEC5881 Engineering systems performance analysis
- MEC5882 Instrumentation, sensing and monitoring
- MEC5891 Design for additive manufacturing
- MGF5600 Managing innovation
- MGF5011 Commercialisation
- MGF5020 Business ethics in a global environment
- MKF5955 Marketing management - Theory and practice
- MTE5885 Biomaterials and biomechanics
- MTE5886 Additive manufacturing of metallic materials
- MTE5887 Additive manufacturing of polymeric and functional materials

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E6001 Master of Advanced Engineering

Specialisation – Mechanical engineering

Entry level 2 program

<table>
<thead>
<tr>
<th>YEAR 1 Semester 1</th>
<th>ENG5001 Advanced engineering data analysis</th>
<th>MEC5882 Instrumentation, sensing and monitoring</th>
<th>MEC5883 Mechanical systems design</th>
<th>Enhancement unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>YEAR 1 Semester 2</td>
<td>ENG5002 Engineering entrepreneurship Or ENG5008 Work integrated learning</td>
<td>MEC5881 Engineering systems performance analysis</td>
<td>MEC5884 Sustainable engineering systems</td>
<td>ENG5005 Research methods</td>
</tr>
</tbody>
</table>

Enhancement units

- ACF5903 Accounting for business
- BTF5910 Corporate sustainability regulation
- CHE5882 Biomass and biorefineries
- CHE5883 Nanostructured membranes for separation and energy production
- ECE5886 Smart grids
- ECF5903 Economics
- ENG5100 Professional engineer in organisation and society
- MEC5891 Design for additive manufacturing
- MGF5600 Managing innovation
- MGF5011 Commercialisation
- MGF5020 Business ethics in a global environment
- MKF5955 Marketing management - Theory and practice
- MTE5883 Environmental durability and protection of metals and engineering materials
- MTE5885 Biomaterials and biomechanics
- MTE5886 Additive manufacturing of metallic materials
- MTE5887 Additive manufacturing of polymeric and functional materials

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E6001 Master of Advanced Engineering
Specialisation – Renewable and sustainable energy engineering

Entry level 2 program

<table>
<thead>
<tr>
<th>Year 1 Semester 1</th>
<th>ENG5001 Advanced engineering data analysis</th>
<th>MEC5885 Energy efficiency and sustainability engineering</th>
<th>MTE5884 Advanced photovoltaics and energy storage</th>
<th>Enhancement unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1 Semester 2</td>
<td>ENG5002 Engineering entrepreneurship Or ENG5008 Work integrated learning</td>
<td>ECE5886 Smart grids</td>
<td>MEC5888 Renewable energy systems</td>
<td>ENG5005 Research methods</td>
</tr>
</tbody>
</table>

Enhancement units

- ACF5903 Accounting for business
- BTF5910 Corporate sustainability regulation
- CHE5882 Biomass and biorefineries
- CHE5883 Nanostructured membranes for separation and energy production
- ECF5953 Economics
- ENG5100 Professional engineer in organisation and society
- MEC5881 Engineering systems performance analysis
- MEC5882 Instrumentation, sensing and monitoring
- MGF5600 Managing innovation
- MGF5011 Commercialisation
- MGF5020 Business ethics in a global environment
- MKF5955 Marketing management - Theory and practice
- MTE5883 Environmental durability and protection of metals and engineering materials
- MTE5885 Biomaterials and biomechanics
- MTE5886 Additive manufacturing of metallic materials
- MTE5887 Additive manufacturing of polymeric and functional materials