

Engineering offers six majors comprised of seven courses (42u) as follows:

● **Electronics**

ENGN Code	Course	Prerequisites	Corequisites
1221 or 1218	Electromechanical Technologies or Introduction to Electronics	None	
2211 or 2218	Electronic Circuits and Devices or Electronic Systems & Design	ENGN1221 or 1218	
2224 or 3227	Semiconductors or Analogue Electronics	None for 2224; ENGN2211 for 3227	
3213	Digital Systems and Microprocessors	ENGN2211 or 12u of COMP (B-group)	
3223	Control Systems	ENGN2223 or MATH2305	
<i>and any two of:</i>			
4507	Microelectronic & Photonic Technology (S1 2010)	ENGN2224	
4625	Power Electronics (S2 2010)	ENGN2211	ENGN3227
4545	Radiofrequency Engineering (S1 2009)	ENGN2223 or 2228	

● **Manufacturing**

ENGN Code	Course	Prerequisites	Corequisites
1215 or 1217	Introduction to Materials or Introduction to Mechanics	None	
2214 or 2217	Mechanics of Materials or Mechanical Systems & Design	ENGN1221 or 1217	
2221	Systems Dynamics	MATH1014	
3212	Manufacturing Technologies	ENGN1215 and 2225	
3222	Manufacturing Systems	ENGN3212 and 2226	
4601	Engineering Materials (S1 2009)	ENGN2214	
4627	Robotics (S2 2009)	ENGN2221	

● **Materials and Mechanical**

ENGN Code	Course	Prerequisites	Corequisites
1215 or 1217	Introduction to Materials or Introduction to Mechanics	None	
2214 or 2217	Mechanics of Materials or Mechanical Systems & Design	ENGN1221 or 1217	
2221	Systems Dynamics	MATH1014	
2222	Thermal Energy Systems	PHYS1101 or 1001	
3224	Energy Systems Engineering	ENGN2222	
<i>and any two of:</i>			
4511	Composite Materials (S1 2010)	ENGN2214	
4601	Engineering Materials (S1 2009)	ENGN2214	
4615	Finite Element Analysis (S2 2010)	ENGN2214	

- **Mechatronics**

ENGN Code	Course	Prerequisites	Corequisites
1221 or 1218	Electromechanical Technologies or Introduction to Electronics	None	
2211 or 2218	Electronic Circuits & Devices or Electronic Systems & Design	ENGN1221 or 1218	
2221	Systems Dynamics	MATH1014	
3213	Digital Systems and Microprocessors	ENGN2211 or 12u of COMP (B-group)	
3223	Control Systems	ENGN2223 or MATH2305	
4528	Computer Vision (<i>S1 2010</i>)	ENGN2226	
4627	Robotics (<i>S2 2009</i>)	ENGN2221	

- **Sustainable Energy**

ENGN Code	Course	Prerequisites	Corequisites
1221 or 1218	Electromechanical Technologies or Introduction to Electronics	None	
2211 or 2218	Electronic Circuits & Devices or Electronic Systems & Design	ENGN1221 or 1218	
2222	Thermal Energy Systems	PHYS1101 or 1001	
2224	Semiconductors	None	
3224	Energy Systems Engineering	ENGN2222	
4516	Energy Resources and Renewable Technologies (<i>S2 2009</i>)	ENGN3211	
4524	Solar Energy Technology (<i>S1 2010</i>)	ENGN2224	ENGN3224

- **Telecommunications**

ENGN Code	Course	Prerequisites	Corequisites
1221 or 1218	Electromechanical Technologies or Introduction to Electronics	None	
2211 or 2218	Electronic Circuits & Devices or Electronic Systems & Design	ENGN1221 or 1218	
2228	Signal Processing	ENGN2211 and 2226	
3213	Digital Systems and Microprocessors	ENGN2211 or 12u of COMP (B-group)	
3226	Digital Communications	ENGN2211 and 226	
<i>and any two of:</i>			
4513	Fibre Optics Communications Systems (<i>S1 2009 and S1 2010</i>)	PHYS1201	
4536	Wireless Communications (<i>S2 2010</i>)	ENGN2228	ENGN3226
4545	Radiofrequency Engineering (<i>S1 2009</i>)	ENGN2223 or 2228	