TRINE UNIVERSITY

Siena Heights Transfer Guide to BS - Mechatronics & Robotics Engineering

79 hours total eligible for transfer. Only 41 hours left to complete 120 hours of program requirements.

TRINE UNIVERSITY BACHELOR OF SCIENCE IN MECHATRONICS & ROBOTICS ENGINEERING (129 HRS)				
Siena Heights University BS - General Engineering				79
Trine University BS - Mechatronics & Robotics Engineering				41
			Total Credits	129
General Education Requirements – 41 hours			**Transfer Institution Information**	
Communication – 9 hrs.		**Credits**	**Siena Heights Univ**	**Credits**
ENG 133	Technical Communication	3		
HUM 203	Humanities Seminar	3		
SP 203	Effective Speaking	3	TSD 101	3
Humanities and Social Science – 9 hrs.				
	Social Science	3	SOCIAL SCIENCE	3
	Social Science or Humanities Elective	3	FINE & PERFORMING ARTS	3
	Humanities Elective	3	PHILOSOPHY or RELIGIOUS STUDIES	3
Mathematics and Science – 23 hrs.				
MA 134	Calculus I	4	MAT 181	4
MA 164	Calculus II	4	MAT 182	4
MA 213	Calculus III	3	MAT 292	3
CH 104	General Chemistry I	4	CHE 141	4
PH 224	University Physics I	4	PHY 161	4
PH 234	University Physics II	4	PHY 162	4
Additional Requirements - 16 hrs.				
GE 101	Introduction to Engineering	1		
CS 1113	Intro to Object-Oriented Program	3	ENR 140	3
EGR 143	Engineering Graphics	3	ENR 104	3
MA 233	Differential Equations	3	MAT 282	3
MA 313	Introduction to Linear Algebra	3	MAT 345	3
MA 393	Probability & Statistics	3	ENR 348	3
Engineering Science - 14 hrs.				
ES 213	Statics	3	ENR 150	3
ES 223	Dynamics	3	ENR 260	3
ES 233	Engineering Materials	3	ENR 331	3
ES 243	Solid Mechanics	3	ENR 250	3
ES 382	Engineering Economics	3		
Electrical/Computer Engineering Core Requirements – 15 hrs.				
ECE 261	Digital Systems Lab	1		
ECE 263	Digital Systems	3		
ECE 271	Microcontrollers Lab	1		
ECE 273	Microcontrollers	3		
ECE 211	Circuits Lab	1		
ECE 213	Circuits Analysis	3	ENR 270	3
ECE 343	Analog Signals	3		
Mechanical Engineering Core Requirements – 8 hrs.				
MAE 202	Mechanical Engineering Analysis	2	ENR 202 (junior standing)	2
MAE 241	Manufacturing Processes & Equipment Lab	1		
MAE 242	Manufacturing Processes & Equipment	2		
MAE 353	Machine Component Design	3		
Mechatronics/Robotics Core Requirements – 23 hrs.				
MRE 262	Robotics Lab & Intro Programmable Logic Controllers	2		
MRE 313	Fluid Power Systems & Design	3		
MRE 323	Robotics Kinematics & Kinetics	3		
MRE 403	Machine Communications	3		
MRE 463	Advanced Mechatronics	3		
MRE 4023	System Dynamics & Controls	3		
MRE 4053	Mechatronics & Robotics Engineering Design I	3		
MRE 4063	Mechatronics & Robotics Engineering Design II	3		
Engineering Electives – 6 hrs.				
May include CO or any approved 300+ level ASEC course.				
	Engineering Elective	3	ENR 391	3
CO 453		3		
CO 452		2		
CO 451		1		
	300 Level or Higher ASEC Course - ES 313	3	ENR 220	3
Electives – 6 hrs.				
	Elective	3	ENG 101	3
	Elective	3	ENG 102	3
	TOTAL	**129**		**79**

Transfer Policy

- Official transcripts and scores sent to Trine University.
- A grade of “C” or higher earned.

Mechatronics & Robotics Engineering