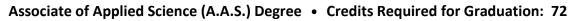
## **Robotics** • Part-time Hybrid E-Degree

### Semester Course Outline • 2024 – 2025

31 Months (6 Semesters, 2 Summer Sessions) • Revised: 2/2/24





#### First Fall Semester (August – December)

Course Number	Course Title	Clock Hours	Credit
EST 116	DC/AC Electronics	112	4
EST 267	Rework, Repair, and Surface Mount Soldering	56	2
RBTC 210	Mechanical Systems A	28	1
RBTC 212	Mechanical Systems B	28	1
	Total	224	8

#### First Spring Semester (January – May)

Course Number	Course Title	Clock Hours	Credit
EST 121	Digital Systems A	84	3
EST 123	Digital Systems B	28	1
RBTC 175	Basic Motor Controls	84	3
RBTC 207	Fluid Power	56	2
	Total	252	9

#### First Summer Session (May – July)

Course Number	Course Title	Clock Hours	Credit
RBTC 200	Mechanical Design and 3-D Modeling A	56	2
RBTC 203	Mechanical Design and 3-D Modeling B	28	1
Selected Mather	natics Course (Choose one)		
MATH 100 – App	olied General Math	45	3
MATH 101 – Inte	ermediate Algebra		
MATH 114 – Coll	ege Algebra *		
Selected Social S	cience Course (Choose one)		
ECON 105 – Lead	dership in the Global Workplace	45	3
ECON 201 – Prin	ciples of Microeconomics I *		
ECON 202 – Prin	ciples of Macroeconomics II *		
SOC 100 – Introd	luction to Sociology *		
	Total	174	9

# Robotics • Part-time Hybrid E-Degree • Page 2 Semester Course Outline • 2024 – 2025 • Revised: 2/2/24



#### Second Fall Semester (August – December)

Course Number	Course Title	Clock Hours	Credit
EST 246	Circuit Board Design	84	3
EST 247	Microcontrollers	84	3
RBTC 205	Programmable Logic Controllers	84	3
	Total	252	9

#### Second Spring Semester (January – May)

Course Number	Course Title	Clock Hours	Credit
EST 115	Electronic Systems	112	4
EST 219	3D Printer Build	84	3
RBTC 227	Robot Operations and Programming	84	3
	Total	280	10

#### Second Summer Session (May – July)

Course Number	Course Title	Clock Hours	Credit
CSC 102	Windows Applications for Technicians	45	3
Selected Behavior	oral Science Course (Choose one)		
PSYC 100 – Psych	nology of Human Relations	45	3
PSYC 101 – Gene	eral Psychology *		
Selected Commu	inications Course (Choose one)		
CMST 101 – Four	ndations of Communication * (CSS 100 – Career Search Strategies .5 credit)	45	3
COMM 101 – Co	mmunications and Career Strategies		
ENGL 101 – Com	position * (CSS 100 – Career Search Strategies .5 credit)		
	Total	135	9

## Robotics • Part-time Hybrid E-Degree • Page 3 Semester Course Outline • 2024 – 2025 • Revised: 2/2/24



#### Third Fall Semester (August – December)

Course Number	Course Title	Clock Hours	Credit
RBTC 219	PLC Integration	84	3
RBTC 238	Advanced Robot Operation	84	3
WLD 232	Welding Process	56	2
	Total	224	8

#### Third Spring Semester (January – May)

Course Number	Course Title	Clock Hours	Credit
PM 228	Introduction to Precision Machining	112	4
RBTC 202	Robotic Engineering	168	6
	Total	280	10

Note: Labs will be on campus and scheduled in order to best accommodate all enrolled students.

**Elective Courses:** Students can take any Electronics course as an elective that is not listed on the current semester outline. Anatomy 142 and Chemistry 106/106L can also be taken as elective courses.

With the instructor's approval, SCT 100 – Solar Car Team may be substituted for up to 6 credits of course work or taken as an additional elective.

• Students will select a course in each of the areas listed to meet general education requirements. Courses marked with an asterisk (\*) can be transferred directly to the university system and may be substituted for recommended courses on the outline. Students should speak with an advisor before doing so.

Students who select to take transferable communications course CMST 101 or ENGL 101, must also register for CSS 100 – Career Search Strategies for .5 credit. This curriculum is required for all Lake Area Tech graduates and is included in the COMM 101 course but is separate from the university system.