

**Automation Engineering**  
**typical four-year plan for “calculus-ready” first-year student**  
**92-94 program credits (127 - 129 overall credits minimum)**  
**“even fall” start**

Important Note: Not every course will necessarily be offered as shown below – upper level courses are usually offered on an alternate year schedule. This is an example only. You must stay in contact with AE program advisors about current and upcoming courses for planning purposes.

Semester I – Fall 2024, 2026, 2028				Semester II – Spring 2025, 2027, 2029			
WRT	188	First Year College Writing	3	COM M	111	Intr. to Public Speak.	3
XC Q1		USP Culture/Quest 1	3	XS Q2		USP Society/Quest 2	3
MATH	171	Calculus I	5	MATH	172	Calculus II	4
EGR	105	Engineering Fund.	3	EGR	201	Statics	3
EGR	110	Engineering Graphics	3	EGR	242	Programming for engineers	3
		<b>Total:</b>	<b>17</b>			<b>Total:</b>	<b>16</b>

Semester III – Fall 2025, 2027, 2029				Semester IV – Spring 2026, 2028, 2030			
PHYS	191	University Physics I	5	PHYS	192	University Physics II	5
EGR	202	Dynamics	3	EGR	131	Electrical Circuits II	4
EGR	203	Mechanics of Materials	4	EGR	232	Semiconductor devices	3
EGR	130	Electrical Circuits I	4	EGR	320	Motors and Drives	4
		<b>Total:</b>	<b>16</b>			<b>Total:</b>	<b>16</b>

Semester V – Fall 2026, 2028, 2030				Semester VI – Spring 2027.2029. 2031			
XS GC		USP Society/Global Citizen	3	MATH	371	Differential Equations	3
WRT	288	Connect: Adv. Writing	3	XC		USP Culture	3
MATH	301	Statistics	3	XS Q3		USP Society/Quest 3	3
EGR	240	Logic & control devices	4	EGR	221	Machine components	3
EGR	325	Signals & Systems	3	EGR	390	Industrial Robotics / Mechatronics	3
				EGR	NEW	Control Systems	3
		<b>Total:</b>	<b>16</b>			<b>Total:</b>	<b>18</b>

Semester VII – Fall 2027.2029. 2031				Semester VIII – Spring 2028, 2030, 2032			
XC ES		USP Ethnic Studies	3	ENG		Literature	3
EGR	342	Measurements Control and Data Acquisition	3	HIST		History	3
EGR	330	Thermodynamics	3	EGR		Major Elective	3
EGR	NEW	Kinematics and Dynamics of Machinery	3	EGR	NEW	Automation Systems Design	3
EGR	360	Project management	3	EGR	400	Capstone/Internship	3
		<b>Total:</b>	<b>15</b>			<b>Total:</b>	<b>15</b>

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EGR	110	Engineering Graphics	3	EGR	242	Programming for engineers	3
		<b>Total:</b>	<b>17</b>			<b>Total:</b>	<b>16</b>

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PHYS	191	University Physics I	5	PHYS	192	University Physics II	5
EGR	202	Dynamics	3	EGR	131	Electrical Circuits II	4
EGR	203	Mechanics of Materials	4	EGR	232	Semiconductor devices	3
EGR	130	Electrical Circuits I	4	EGR	320	Motors and Drives	4
		<b>Total:</b>	<b>16</b>			<b>Total:</b>	<b>16</b>

Semester V – Fall 2027, 2029, 2031				Semester VI – Spring 2028.2030. 2032			
XS GC		USP Society/Global Citizen	3	MATH	371	Differential Equations	3
WRT	288	Connect: Adv. Writing	3	XC		USP Culture	3
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Semester VII – Fall 2028.2030. 2032				Semester VIII – Spring 2029, 2031, 2033			
XC ES		USP Ethnic Studies	3	ENG		Literature	3
EGR	342	Measurements Control and Data Acquisition	3	HIST		History	3
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EGR	325	Signals & Systems	3	EGR	NEW	Control Systems	3
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		<b>Total:</b>	<b>15</b>			<b>Total:</b>	<b>15</b>

**Automation Engineering**  
**typical four-year plan for “algebra-ready” first-year student**  
**97-99 program credits (132 - 134 overall credits minimum)**  
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XC Q1		USP Culture/Quest 1	3	XS Q2		USP Society/Quest 2	3
XS GC		USP Society/Global Citizen	3	XC		USP Culture	3
MATH	104	College Algebra	3	MATH	106	Trigonometry	2
EGR	105	Engineering Fund.	3	EGR	201	Statics	3
EGR	110	Engineering Graphics	3	EGR	242	Programming for engineers	3
		<b>Total:</b>	<b>18</b>			<b>Total:</b>	<b>17</b>

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EGR	240	Logic & control devices	4	EGR	320	Motors and Drives	4
EGR	325	Signals & Systems	3	EGR	390	Industrial Robotics / Mechatronics	3
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