

# 2024–25 Mechatronics Engineering Academic Map

## Department of Engineering Technology

### Middle Tennessee State University • Murfreesboro



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about the new  
True Blue Core (TBC).

An academic map is a suggested four-year schedule of courses based on degree requirements in the undergraduate catalog. This sample schedule serves as a general guideline to help build a full schedule each term. Milestones, courses, and special requirements necessary for timely progress to complete a major are designated to keep you on track to graduate in four years. **Missing milestones could delay your program.**

This map is not a substitute for academic advisement—contact your advisor if you have any questions about scheduling or about your degree requirements. Also see the current undergraduate catalog ([catalog.mtsu.edu](http://catalog.mtsu.edu)) for a complete list of requirements and electives. Note: Requirements are continually under revision, and there is no guarantee they will not be changed or revoked; contact the department and/or program area for current information.

## Suggested Fall/Spring Four-Year Schedule

FRESHMAN FALL			FRESHMAN SPRING		
Course	Hours	Milestones/Notes	Course	Hours	Milestones/Notes
ENGR 1100	3	Prereq: MATH 1730 with C or better	ENGR 2100	3	
MATH 1910	4	TBC; Major; Take MATH 1730 first if weak background in Math. May take MATH 1910 with accep. Math ACT (26).	MATH 1920	4	Prereq: MATH 1910 with C or better
CHEM 1110/1111	4	TBC; Major	Information Literacy	3	TBC
Written Communication	3	TBC	PHYS 2110/2111	4	TBC; Major; Prereq: MATH 1910 with C or better
Creativity and Cultural Expression	3	TBC; one must come from Discovery	Human Society and Social Relationships	3	TBC; one must come from Discovery
<b>SUBTOTAL</b>	<b>17</b>		<b>SUBTOTAL</b>	<b>17</b>	
SOPHOMORE FALL			SOPHOMORE SPRING		
ENGR 2110	3	Prereq: MATH 1910; ENGR 1100 with C or better; PHYS 2110/2111	ENGR 2120	3	Prereq: ENGR 2110; MATH 1920
ENGR 2210	3	Prereq: CHEM 1110	ENGR 2130	3	Prereq: ENGR 1100, MATH 1910, PHYS 2120/2121
MATH 3110	4	Prereq: MATH 1920 with C or better	MATH 3120	3	Prereq: MATH 1920 with C or better
History and Civic Learning	3	TBC; one must come from Discovery	Creativity and Cultural Expression Literature	3	TBC
PHYS 2120/2121	4	Prereq: PHYS 2110 with C or better	CSCI 1170	4	Prereq: MATH 1730 with C or better
<b>SUBTOTAL</b>	<b>17</b>		<b>SUBTOTAL</b>	<b>16</b>	
JUNIOR FALL			JUNIOR SPRING		
ENGR 3510	3	Prereq: ENGR 2130, MATH 3120	ENGR 3970	3	Prereq: Jr. standing
ENGR 3560	3	Prereq: ENGR 2210, ENGR 2110, MATH 1920	ENGR 3530	3	Prereq: ENGR 3510; may be taken concurrently
ENGR 3550	3	Prereq: ENGR 2120, MATH 3110	ENGR 3590	3	Prereq: ENGR 2120, CSCI 1170
ENGR 3915	3	Jr./Sr. standing	MATH 2010, MATH 2050, MATH 3180, MATH 3260, MATH 4200, or MATH 4230	3	
ENGR 3520	3	Prereq: ENGR 2130, CSCI 1170	ENGR 4501	3	Prereq: POD
Non-Written Communication	3	TBC			
<b>SUBTOTAL</b>	<b>18</b>		<b>SUBTOTAL</b>	<b>15</b>	
SENIOR FALL			SENIOR SPRING		
ENGR 4500	1	Sr. standing	ENGR 4530	3	Prereq: ENGR 3540
ENGR 4510	3	Prereq: ENGR 3520, ENGR 3530	ENGR 4590	3	Prereq: ENGR 4580, 3000 level
ENGR 3540	3	Prereqs: MATH 3120; ENGR 3520; ENGR 3530 (may be taken concurrently)	ENGR 4520	3	Prereq: ENGR 3510
ENGR 4580	3	Prereq: ENGR 3550, ENGR 3590	History and Civic Learning	3	TBC; one must come from Discovery
Human Society and Social Relationships	3	TBC; one must come from Discovery	Creativity and Cultural Expression	3	TBC; one must come from Discovery
<b>SUBTOTAL</b>	<b>13</b>		<b>SUBTOTAL</b>	<b>15</b>	
<b>TOTAL HOURS IN PROGRAM: 128</b>					

# Mechatronics Engineering Suggested Fall/Spring/Summer Four-Year Schedule

You may choose to attend a summer term to reduce your load during fall or spring terms but still stay on track to graduate in four years. Refer to [www.mtsu.edu/financial-aid/scholarships](http://www.mtsu.edu/financial-aid/scholarships) for information regarding use of the Lottery Scholarship for the summer term.

**NOTE: Learning Support courses will alter the sequences on this map.**

FRESHMAN FALL			FRESHMAN SPRING		
Course	Hours	Milestones/Notes	Course	Hours	Milestones/Notes
ENGR 1100	3	Prereq: MATH 1730 with C or better	ENGR 2100	3	
MATH 1910	4	TBC; Major; Take MATH 1730 first if weak background in Math. May take MATH 1910 with acceptable Math ACT score (26).	MATH 1920	4	Prereq: MATH 1910 with C or better
CHEM 1110/1111	4	TBC; Major	Human Society and Social Relationships	3	TBC; one must come from Discovery
Written Communication	3	TBC	PHYS 2110/2111	4	TBC; Major; Prereq: MATH 1910 with C or better
<b>SUBTOTAL</b>	<b>14</b>		<b>SUBTOTAL</b>	<b>14</b>	
FRESHMAN SUMMER					
PHYS 2120/2121	4	Prereq: PHYS 2110 with C or better	Information Literacy	3	TBC
<b>SUBTOTAL</b>	<b>4</b>		<b>SUBTOTAL</b>	<b>3</b>	
SOPHOMORE FALL			SOPHOMORE SPRING		
ENGR 2110	3	Prereq: MATH 1910; ENGR 1100 with C or better; PHYS 2110/2111	ENGR 2120	3	Prereq: ENGR 2110; MATH 1920
ENGR 2210	3	Prereq: CHEM 1110	ENGR 2130	3	Prereq: ENGR 1100, MATH 1910, PHYS 2120/2121
MATH 3110	4	Prereq: MATH 1920 with C or better	MATH 3120	3	Prereq: MATH 1920 with C or better
Creativity and Cultural Expression Literature	3	TBC	CSCI 1170	4	Prereq: MATH 1730 with C or better
<b>SUBTOTAL</b>	<b>13</b>		<b>SUBTOTAL</b>	<b>13</b>	
SOPHOMORE SUMMER					
Creativity and Cultural Expression	3	TBC; one must come from Discovery	Human Society and Social Relationships	3	TBC; one must come from Discovery
<b>SUBTOTAL</b>	<b>3</b>		<b>SUBTOTAL</b>	<b>3</b>	
JUNIOR FALL			JUNIOR SPRING		
ENGR 3510	3	Prereq: ENGR 2130, MATH 3120	ENGR 3970	3	Prereq: Jr. standing
ENGR 3560	3	Prereq: ENGR 2210, ENGR 2110, MATH 1920	ENGR 3530	3	Prereq: ENGR 3510; may be taken concurrently
ENGR 3550	3	Prereq: ENGR 2120, MATH 3110	ENGR 3590	3	Prereq: ENGR 2120, CSCI 1170
ENGR 3915	3	Jr./Sr. standing	MATH 2010, MATH 2050, MATH 3180, MATH 3260, MATH 4200, or MATH 4230	3	
ENGR 3520	3	Prereq: ENGR 2130, CSCI 1170	ENGR 4501	3	Prereq: POD
<b>SUBTOTAL</b>	<b>15</b>		<b>SUBTOTAL</b>	<b>15</b>	
JUNIOR SUMMER					
Non-Written Communication	3	TBC	History and Civic Learning	3	TBC; one must come from Discovery
<b>SUBTOTAL</b>	<b>3</b>		<b>SUBTOTAL</b>	<b>3</b>	
SENIOR FALL			SENIOR SPRING		
ENGR 4500	1	Sr. standing	ENGR 4530	3	Prereq: ENGR 3540
ENGR 4510	3	Prereq: ENGR 3520, ENGR 3530	ENGR 4590	3	Prereq: ENGR 4580, 3000 level
ENGR 3540	3	Prereqs: MATH 3120; ENGR 3520; ENGR 3530 (may be taken concurrently)	ENGR 4520	3	Prereq: ENGR 3510
ENGR 4580	3	Prereq: ENGR 3550, ENGR 3590	History and Civic Learning	3	TBC; one must come from Discovery
Creativity and Cultural Expression	3	TBC; one must come from Discovery			
<b>SUBTOTAL</b>	<b>13</b>		<b>SUBTOTAL</b>	<b>12</b>	
<b>TOTAL HOURS IN PROGRAM: 128</b>					