



**Bachelor of Science (B.S.) Degree: Mechanical & Manufacturing Engineering Program of Study**  
**Effective Fall 2021**

**FRESHMAN SEMESTER FALL**

Course			Cr
ENGL	1010	Freshman English I	3
MATH	1910	Calculus I	4
CHEM	1110	General Chemistry I	3
CHEM	1111	General Chemistry I Lab	1
ENGR	1020	Freshman Engr Seminar	1
ENGR	1151	Computer Engr Graphics	1
UNIV	1000	Service to Leadership	1
			<b>14</b>

**FRESHMAN SEMESTER SPRING**

Course			Cr
ENGL	1020	Freshman English II	3
MATH	1920	Calculus II	4
PHYS	2110	Calculus Based Physics I	3
PHYS	2111	Calculus Based Physics I Lab	1
ENGR	2240	Matlab Based Prog for Engr	3
COMM	2200	Public Speaking	3
			<b>17</b>

**SOPHOMORE SEMESTER FALL**

Course			Cr
MATH	2110	Calculus III	4
HIST*		History	3
ENGR	2110	Engineering Mechanics I (Statics)	3
PHYS	2120	Calculus Based Physics II	3
PHYS	2121	Calculus Based Physics II Lab	1
ENGR	2010	Thermodynamics	3
			<b>17</b>

**SOPHOMORE SEMESTER SPRING**

Course			Cr
MATH	3120	Ordinary Differential Eq	3
ENGR	2000	Circuits I	3
ENGR	2001	Circuits I Lab	1
ENGR	2120	Engineering Mechanics II (Dynamics)	3
ENGR	2130	Mechanics of Materials	3
ENGR	2131	Mechanics of Materials Lab	1
Hum.**		Hum Elective	3
			<b>17</b>

**JUNIOR SEMESTER FALL**

Course			Cr
ENGR	3200	Introduction to Design	3
ENGR	3300	Material Science	2
ENGR	3400	Numerical Analysis	3
MEEN	3210	Mechanism Design	3
MEEN	3511	Measurements and Instrumentation Lab	1
CVEN	3100	Fluid Mechanics	3
ENGL**		English Literature	3
			<b>18</b>

**JUNIOR SEMESTER SPRING**

Course			Cr
Math/Sci		Math/Science elective	3
MEEN	3100	Material Processing	3
MEEN	3220	Design of Machine Elements	3
MEEN	3250	Computer Aided Design	3
MEEN	3521	Manufacturing Processes Lab	1
Tech**		Tech Elective	3
			<b>16</b>

**SENIOR SEMESTER FALL**

Course			Cr
HIST*		History	3
MEEN	4011	Mechatronics Laboratory	1
MEEN	4150	Heat Transfer	3
MEEN	4230	Machine Design	3
ENGR	4201	FE Review	0
ENGR	4500	Capstone Design Project I	1
ENGR	4900	Professional Development	1
Soc.**		Social Science Elective	3
			<b>15</b>

**SENIOR SEMESTER SPRING**

Course			Cr
MEEN	4021	Thermal Fluid Systems Lab	1
MEEN	4250	Thermal Fluid Systems Design	3
ENGR	4510	Capstone Design Project II	1
Design**		Design Elective	3
Soc.**		Social Science Elective	3
Hum.**		Humanities Elective	3
			<b>14</b>

\*History: Six hours required

- HIST 2010 (3) American History I
- HIST 2020 (3) American History II
- HIST 2030 (3) History of Tennessee State University
- HIST 2050 (3) World History I
- HIST 2060 (3) World History II
- HIST 2700 (3) African American Experience

\*\*Course to be chosen from a list of approved courses