

**College of Basic and Applied Sciences — Upper Division Form 2019-2020**  
(Requires 124 total credit hours)

Student name \_\_\_\_\_ Student # \_\_\_\_\_  
 Major Engineering Technology Minor \_\_\_\_\_  
 Concentration Electro-Mechanical Engr Tech E-mail \_\_\_\_\_

**Instructions: For students graduating in Summer 2019 or later. One (1) copy signed by major advisor (and minor advisor if minor is completed) should be filed with the Graduation Analyst in DSB 120 three semesters prior to graduation. An Intent to Graduate form must be submitted with this form.**

General Education	Course	Semester	Grade	Notes	Credit Hours
<b>COMMUNICATION</b> (9 hours)	ENGL 1010				3
	ENGL 1020			Pre: ENGL 1010 with a C- or better	3
	COMM 2200				3
<b>HISTORY</b> (6 hours) Choose two: HIST 2010, HIST 2020, HIST 2030					3
					3
<b>HUMANITIES AND/OR FINE ARTS</b> (9 hours) Choose 1: ENGL 2020, 2030, or HUM 2610. Choose 2 with different prefixes: ANTH 2210, ART 1030 or 1920, DANC 1000, HIST 1010, 1020, 1110, 1120, MUS 1030, PHIL 1030, THEA 1030					3
					3
					3
<b>MATHEMATICS</b> (3 hours) Choose one: MATH 1010, 1530, 1630, 1710, 1720, <b>1730</b> , 1810, 1910	<b>MATH 1730</b>			<b>MATH 1730 is required for major</b>	3 of 4
<b>NATURAL SCIENCES</b> (8 hours) Choose two different subjects: ASTR 1030/1031, BIOL 1030/1031, BIOL 1110/1111, BIOL 2010/2011, BIOL 2020/2021, CHEM 1010/1011, CHEM 1030/1031, <b>CHEM 1110/1111</b> , GEOL 1030/1031, GEOL 1040/1041, PGEO 1030, PHYS 1110, <b>PHYS 2010/2011</b> , PHYS 2110/2111, PSCI 1030/1031, PSCI 1130/1131	<b>CHEM 1110/1111</b>			*see major courses for required sequences/pre-requisites; <b>CHEM 1110/1111 required</b>	4
	<b>PHYS 2010/2011</b>			*see major courses for required sequences/pre-requisites; <b>PHYS 2010/2011 required</b> Pre: MATH 1730 or MATH 1710 C(2.0) or better	4
<b>SOCIAL/BEHAVIORAL SCIENCES</b> (6 hours) Choose two different subjects: AAS 2100, ANTH 2010, ECON 2410, ECON 2420, EMC/JOUR/RIM 1020, GEOG 2000, GS 2010, HLTH 1530/1531, PS 1010 or 1005, PSY 1410, RS 2030, SOC 1010 or 2010, WGST 2100					3
					3
<b>Hours Required</b>					<b>41</b>

Major Courses (2.0 GPA required)	Course	Semester	Grade	Notes	Credit Hours
Engineering Fundamentals	ENGR 1100			Pre: MATH 1730	3
Introduction to Materials Science and Engineering	ENGR 2210			Pre: CHEM 1110/1111	3
Statics	ENGR 2110			Pre: ENGR 1100, MATH 1910: Co: PHYS 2010/2011	3
Technical Project Management and Soft Skills	ENGR 3915			Pre: Junior/Senior	3
Engineering Safety	ENGR 3920				3
Engineering Economy	ENGR 3970			Pre: Junior/Senior	3
CADD I	ET 2310				3
Machine Tool Technology	ET 3210			Pre: ENGR 2210, ET 2310	3
CADD II	ET 3360			Pre: ET 2310	3
Electrical Circuit Analysis I	ET 3601			Pre: ENGR 1100; Co: MATH 1910	3
Electrical Circuit Analysis II	ET 3602			Pre: ET 3601, MATH 1910	3
Digital Circuits Fundamentals	ET 3620			Pre: ET 3601	3
Electronics	ET 3630			Pre: ET 3602	3
Introduction to Microprocessors	ET 3650			Pre: CSCI 1170 C, ET 3620 C	3
Engineering Thermodynamics and Heat Transfer	ET 3810			Pre: ENGR 1100, PHYS 2011, MATH 1910	3

**Major requirements continued on next page**

**Major requirements continued from previous page**

Strength of Materials	ET 3860		Pre: ENGR 2110	3
Programmable Logic Controllers	ET 4600		Pre: ET 3602	3
Instrumentation and Controls	ET 4610		Pre: ET 3620, ET 3630	3
Industrial Electricity	ET 4640		Pre: ET 3602	3
Senior Problems in Engineering Technology	ET 4802		Pre: ET 3650, 3860, 4610, 4860; Dept Permit	3
Fluid Power	ET 4850		Pre: ENGR 1100, ET 3810	3
Robotics	ET 4860		Spring only; Pre: MATH 1910, CSCI 3 hrs	3
<b>Hours Required</b>				<b>66</b>

<b>Supporting and Elective Courses</b>				
<b>Course</b>	<b>Semester</b>	<b>Grade</b>	<b>Notes</b>	<b>Credit Hours</b>
<b>CSCI 1170</b> – Computer Science I			MATH 1730 with a C(2.0) or higher, ACT MATH of 26, or Calculus Placement test with satisfactory score	4
<b>MATH 1530 or PSY 3020</b>			MATH 1530 required for MATH 2110	3
<b>MATH 1730</b> – Algebra and Trigonometry			3 credits counted in General Education; Need C (2.0)	1 of 4
<b>MATH 1910</b> – Calculus I			Pre-req: MATH 1730 with a C(2.0) or higher, ACT MATH of 26, or Calculus Placement test with satisfactory score; must earn a grade of C(2.0) or higher	4
<b>MATH 2110</b> – Data Analysis			Pre: MATH 1530	1
<b>CHEM 1110/1111</b> – General Chemistry I			Credits count in general education	0
<b>PHYS 2010/2011</b> – Non Calculus Based Physics I			Credits count in general education	0
<b>PHYS 2020/2021</b> – Non-Calculus Based Physics II			Pre: PHYS 2010/2011	4
<b>Hours Required</b>				<b>17</b>

<b>Optional Minor – Electro-Mechanical Engineering Technology does NOT require a minor</b>				
<b>Course</b>	<b>Semester</b>	<b>Grade</b>	<b>Notes</b>	<b>Credit Hours</b>
<b>Hours Required</b>				
<b>Signed:</b>				
	<b>Minor Advisor</b>			<b>Date</b>

- 1. Degrees require a minimum of 120 semester hours (12 of the last 18 at MTSU) with a 2.0 GPA, a minimum of 42 upper-division hours (30 at MTSU) with a 2.0 GPA, and a minimum of 60 senior college hours.**
- 2. Learning Support courses count toward the 120-hour requirement and the overall GPA.**

<b>Signed:</b>		
	<b>Major Advisor</b>	<b>Date</b>