

# NORTH CENTRAL STATE COLLEGE

## Mechanical Engineering Technology Applied Baccalaureate Degree 2019-2020

<b>FALL</b>				<b>YEAR ONE</b>
Complete	Course Number	Course Title	Prerequisites	Credits
	ENGL 1010	English Composition I	WRIT0090 and READ0080 *	3
	ENGR 1010	Introduction to Engineering		2
	MATH 1110	College Algebra	MATH0086 *	4
	MECT 1150	Fundamentals of Engineering Design		2
	MFGT 1110	Manufacturing Processes		3
<b>Semester Credit Hours</b>				<b>14</b>

<b>SPRING</b>				<b>YEAR ONE</b>
Complete	Course Number	Course Title	Prerequisites	Credits
	CHEM 1030	Chemistry	MATH0074 or MATH0086 or STAT0086 (minimum grade of C-)	3
	ENRD 2150	Computer Aided Design I		3
	MATH 1130	Trigonometry	MATH1110 (minimum grade of C-)	4
	MECT 1750	Hydraulics and Pneumatics		3
	MECT 1910	Design Project I		1
	PHYS 1110	General Physics I	MATH1051c (minimum grade of C-)	4
<b>Semester Credit Hours</b>				<b>18</b>

<b>FALL</b>				<b>YEAR TWO</b>
Complete	Course Number	Course Title	Prerequisites	Credits
	MATH 1150	Calculus I	MATH 1130 or MATH 1051 (minimum grade of C-)	5
	MECT 2230	Engineering Materials		3
	MECT 2330	Statics	MATH1050, PHYS1110c	3
	MECT 2910	Design Project II		1
	PHYS 1130	General Physics II	PHYS 1110 (minimum grade of C-), MATH1051	4
<b>Semester Credit Hours</b>				<b>16</b>

<b>SPRING</b>				<b>YEAR TWO</b>
Complete	Course Number	Course Title	Prerequisites	Credits
	ENGR 2010	Engineering Programming/Intro to PLC and Robotic		3
	ENGR 2850	Engineering Economics & Organization	MATH1110	3
	MATH 1151	Calculus II	MATH1151 (minimum grade of C-)	5
	MECT 2440	Strength of Materials	MECT2330	3
	MECT 2950	Design Project III	MECT1750, MECT2440c	1
	PSYC 1010	Introduction to Psychology		3
<b>Semester Credit Hours</b>				<b>18</b>

c = Can be concurrent    m = Must be concurrent

## Baccalaureate in Mechanical Engineering Technology Curriculum Worksheet

FALL				YEAR THREE
Complete	Course Number	Course Title	Prerequisites	Credits
	ELET 3010	Fundamentals of Electricity	MATH1051	3
	ENGL 1030	English Composition II	ENGL1010	3
	MECT 3010	Applied Dynamics	MECT2330, MATH1150	3
	MECT 3030	Technical Thermodynamics	MATH1151	4
	MECT 3910	Design Project IV		1
	MFGT 1640	Computer Aided Manufacturing	MFGT1110	2
<b>Semester Credit Hours</b>				<b>16</b>

SPRING				YEAR THREE
Complete	Course Number	Course Title	Prerequisites	Credits
	ENGR 3030	Measurement & Instrumentation		3
	MECT 3050	Mechanical Design I	MECT3010, MECT2240	3
	MECT 3070	Applied Thermodynamics	MECT3030, MATH1150	4
	MECT 3950	Design Project V		1
	PHIL 1010	Western Philosophy		3
<b>Semester Credit Hours</b>				<b>14</b>

FALL				YEAR FOUR
Complete	Course Number	Course Title	Prerequisites	Credits
	MECT 4010	Applied Fluid Mechanics	MATH1151, MECT1750	4
	MECT 4050	Mechanical Design II	MECT3050, MECT2230	3
	MECT 4910	Design Project VI		1
	PHIL 1110	Ethics		3
	SOCY 1010	Introduction to Sociology		3
<b>Semester Credit Hours</b>				<b>14</b>

SPRING				YEAR FOUR
Complete	Course Number	Course Title	Prerequisites	Credits
	ENGR 4010	Advanced PLC and Robotics		3
	ENGR 4050	Senior Technology Capstone	Senior Standing, MECT4050	3
	ENGR 4210	Experiments and Applied Statistics		3
	SOCY 2010	Cultural Diversity and Racism		3
<b>Semester Credit Hours</b>				<b>12</b>
<b>TOTAL SEMESTER HOURS</b>				<b>122</b>

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\* Successful completion of a developmental reading, writing, and mathematics prerequisite requires a grade of C- or above in the course. Developmental reading, writing, and mathematics course prerequisites can also be attained through placement testing. See the [14-092 Standardized Testing Cutoff Scores](#) chart for specific tests and test scores.

\*\* Mandatory Math Placement - All incoming students will be required to provide ACT scores or take a placement test and based on their scores, students will be placed in appropriate mathematics courses. Successful completion (C- or better) of any math course is required in order to advance to the next higher level math course.

~ Prior to graduation, all students entering after Summer 2008, must receive credit for MATH 0074 Introduction to Algebra, or any math course above MATH 0074 or an ACCUPLACER Elementary Algebra  $\geq 58$  and College Level Math  $\geq 20$  or COMPASS Algebra  $\geq 31$ , or ACT Math  $\geq 21$ .

^ Placement in WRIT 0090 or higher; students placed in READ 0080 cannot enroll in HUMA1010 until they have completed their reading course.

The College strongly recommends that students be covered by hospitalization insurance, which can be purchased through a private carrier. To obtain a brochure regarding insurance, contact the Student Success Center. (Rm 103 Kee Hall) or call toll free 888-755-4899, ext. 4761 or locally 419-755-4761.

**Beginning Academic Year 14/15 FYEX 0050 SUCCESS!** is required for all students new to North Central State College. Placement in the course is determined at the time of study skills assessment testing.