

**College of Basic and Applied Sciences
Upper Division Form 2020-2021 Catalog**

Student name _____	Student # _____
Major AEROSPACE	Minors Mathematics & Engineering Technology
Concentration TECHNOLOGY	E-mail _____

Instructions: For students graduating in Summer 2020 or later. *One (1) copy signed by major and minor advisors should be filed in DSB 120 three semesters before anticipated graduation. An Intent to Graduate form must also be filed in DSB 120 at the time of Upper Division Form submission.*

General Education	Course	Semester	Grade	Notes	Credit Hours
COMMUNICATION (9 hours)	ENGL 1010				3
	ENGL 1020			Preq ENGL 1010 with C- or better	3
	COMM 2200				3
HISTORY (6 hours) Choose two: HIST 2010, HIST 2020, HIST 2030					3
					3
HUMANITIES AND/OR FINE ARTS (9 hours) Choose one: ENGL 2020, 2030 or HUM 2610. Choose two with different subjects: ANTH 2210, ART 1030, or 1920, DANC 1000, HIST 1010, 1020, 1110 or 1120, MUS 1030, PHIL 1030, THEA 1030				Preq ENGL 1010 & 1020	3
					3
					3
MATHEMATICS (3 hours) Choose one: MATH 1010, 1530, 1630, 1710, 1720, 1730, 1810, 1910				Program requires MATH 1910; Must be completed with a C (2.0) or better Preq MATH 1730 with C or better or Math ACT sub score of 26 or higher	3
NATURAL SCIENCES (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, CHEM 1110/1111 , GEOL 1030/1031, GEOL 1040/1041, PGEO 1030, PHYS 1110, PHYS 2010/2011, PHYS 2110/2111 , PSCI 1030/1031, PSCI 1130/1131				Program requires CHEM 1110/1111 Must be completed with a C (2.0) or better	4
				Program requires PHYS 2110/2111 Must be completed with a C or better Preq MATH 1910 with C (2.0) or better	4
SOCIAL/BEHAVIORAL SCIENCES (6 hours) Choose two different subjects: AAS 2100, ANTH 2010, ECON 2410, ECON 2420, GEOG 2000, GS 2010, HLTH 1530/1531, PS 1010 or PS 1005, PSY 1410, RS 2030, SOC 1010 or 2010, WGST 2100, EMC/JOUR/RIM 1020					3
					3
Hours Required					41

Major Courses - Grade of C (2.0) or better required in each major course	Course	Semester	Grade	Notes	Credit Hours
Introduction to Aerospace	AERO 1010				3
Theory of Flight	AERO 1020				3
Aerospace Materials	AERO 3020			Preq AERO 1010, 1020 and MATH 1810	3
Propulsions Fundamentals	AERO 3030			Preq AERO 1010, 1020	3
Aviation Safety	AERO 3170			Preq AERO 1020	3
Fundamentals of Aerodynamics	AERO 3440			Preq MATH 1910; PHYS 2110/2111	3
Aerospace Senior Capstone lab	AERO 4040			Preq AERO 1010, 1020 Pr/Creq: AERO 3020, 3030	1
Problems in Aerospace	AERO 4071				3
Aerospace Vehicle Systems	AERO 4310			Spring only	3
Aircraft Performance	AERO 4440			Preq AERO 3440	3
Hours Required					28

Supporting Courses					
Supporting Courses	Course	Semester	Grade	Notes	Credit Hours
General Chemistry I	CHEM 1010/1011			Credits can count in general education; Must be completed with a C (2.0) or better	0-4
Calculus-Based Physics I and University Physics Laboratory I	PHYS 2110/2111			Pre: MATH 1910 with a C (2.0) or higher, Credits can count in general education; Must be completed with a C (2.0) or better	0-4
Calculus I	MATH 1910			Credits can count in general education; Must be completed with a C (2.0) or better	1-4
Calculus-Based Physics II and University Physics Laboratory II	PHYS 2120/2121			Preq PHYS 2111; MATH 1920 with a C or better	4
Computer Science I	CSCI 1170			MATH 1730 or 1810 with a C (2.0) or higher, ACT MATH of 26, or Calculus Placement test with satisfactory score	4
Computer Science II	CSCI 2170			CSCI 1170 and eligibility for MATH 1910	4
Electrical Circuit Analysis I	ENGR 2130			Preq: ENGR 1100, MATH 1910, PHYS 2121	3
Hours Required					16

Mathematics Minor – All courses must be completed with a 'C' (2.0) or better.					
Minor Courses (2.0 GPA required)	Course	Semester	Grade	Notes	Credit Hours
Calculus I	MATH 1910			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; 3 credits can count in general education	0-4
Calculus II	MATH 1920			Pre-req: MATH 1910 with a C(2.0) or higher	4
Linear Algebra	MATH 2010			Preq MATH 1910 with a C(2.0) or higher	3
Calculus III	MATH 3110			Pre: MATH 1920 with a C(2.0) or higher	4
Differential Equations I	MATH 3120			Preq MATH 1920 with a C(2.0) or higher	3
Hours Required					14

Engineering Technology Minor					
Minor Courses (2.0 GPA required)	Course	Semester	Grade	Notes	Credit Hours
Engineering Fundamentals	ENGR 1100			Preq MATH 1730 or Math ACT subscore 26	3
Engineering Thermodynamics	ET 3810			Spring/Summer only Preq ENGR 1100, MATH 1910 and PHYS 2110/2111	3
Statics	ENGR 2110			Preq ENGR 1100 & MATH 1910; Coreq PHYS 2110/2111	3
Dynamics	ENGR 2120			Preq ENGR 2110, MATH 1920	3
Strength of Materials	ET 3860			Preq ENGR 2110; Can take ENGR 3560 Preq ENGR 1210 or ET 1210 or ENGR 2210 and ENGR 2110 or ET 3830 and MATH 1920	3
Vibration	ET 4830			Fall/Spring only; Preq ENGR 2120 Can take ENGR 3590 Preq ENGR 2120 or ET 3840 and CSCI 1170	3
Fluid Power	ET 4850			Preq ENGR 1100, ET 3810 Can take ENGR 3550 Preq ENGR 2120 or ET 3840 and MATH 3110	3
Hours Required					21

1. Degrees require a minimum of 120 semester hours completed with a cumulative and major GPA of 2.0 or higher. Minimum of 36 upper-division hours (3000/4000 level) and a minimum of 50 senior college hours (earned at four-year University) also required.
2. A minimum of 12 credits must be earned at the 3000/4000 level in each major

Signed:		
	Major Advisor	Date