GEOSPATIAL ENGINEERING FLOWCHART
Professional Surveying Emphasis
Academic Year 2020-21

Fall Year 1 Spring
MA1160/1161 (C or better)
MA2160 (L) CALCULUS II (4 CREDITS)
F, S, Su
PH1100 (L) PHYSICS I (1 CREDIT)
F, S, Su
CH1150 UNIVERSITY CHEMISTRY (3 CREDITS)
F, S, Su
SU1000 SURVEYING ENG & ORIENTATION (1 CREDIT)
F

Fall Year 2 Spring
MA3160 (L) CALCULUS III (4 CREDITS)
F, S, Su
MA3120 LINEAR ALGEBRA (2 CREDITS)
F, S, Su
CMG 3200 (L) SITE PLANNING & DEVELOPMENT (4 CREDITS)
S

Fall Year 3 Spring
MA3710 STATISTICS (3 CREDITS)
F, S, Su
SU3600 (L) SURVEYING COMP & ADJUSTMENTS (4 CREDITS)
F
FW3540 INTO TO GIS FOR NATR. RES. MGT (4 CREDITS)
S

Fall Year 4 Spring
SU4060 (L) GEODESY (3 CREDITS)
S
SU4140 (L) PHOTOGRAMMETRY (3 CREDITS)
S
SU4180 LAND SUBDIVISION DESIGN (3 CREDITS)
S

COURSES CAN BE TAKEN IN EITHER ORDER IN THE SOPHOMORE YEAR.

NOTE: SEE REVERSE SIDE FOR EXPLANATION OF PROFESSIONAL ELECTIVES, GENERAL EDUCATION AND CO-CURRICULAR COURSES.
Engineering Elective List (3 credits)
CEE3101 Civil Engineering Materials (3 cr) F, S
CEE3332 Fundamentals of Construction (3 cr) F, S
CEE3401 Transportation Engineering (3 cr) F, S
CEE3810 Soil Mechanics (4 cr) F, S
ENG3200 Thermo/Fluids (4 cr) F, S
ENTXXXX Enterprise (Except 3960/4950) (var) F, S
UN3002 Co-op (1-2 cr) F, S, Su

Science Elective List (3 credits)
BL2001 Valuing the Great Lakes (3 cr) F
BL2160 Botany (4 cr) S
CH1153 Chemistry Recitation I (1 cr) F, S, Su
FW2010 Vegetation of North America (4 cr) F
PH1200/2200 Physics II (4 cr – 1 cr lab, 3 cr lecture) F, S, Su
PH1600/1610 Introductory Astronomy & Lab (3 cr – 1 cr lab, 2 cr lecture) F, S, Su
GE3850 Geohydrology (3 cr) S

Surveying Elective List (3 credits)
SU4010 Geospatial Concepts, Technologies, and Data (3 cr) S
SU4011 Cadastre and Land Information Systems (3 cr) F (alt yrs)
SU4012 Geospatial Data Mining and Crowd Sourcing (3 cr) S (alt yrs)
SU4013 Hydrographic Mapping (3 cr) F
SU4142 3D Surveying and Modeling w/ Laser Scanner Data (3 cr) On Demand
SU4996 Special Topics in Geospatial Technologies (var) On Demand
SU4997 Independent Study in Geospatial Technologies (var) On Demand
SU4998 Undergrad Research in Geospatial Technologies (var) On Demand

GENERAL EDUCATION REQUIREMENTS

A. CORE COURSES (12 CREDITS)

1. UN1015 (COMPOSITION)
2. UN1025 (GLOBAL ISSUES) or 3000+ level Modern Language Course
3. CRITICAL AND CREATIVE THINKING
   FA2330, FA2520, FA2720, FA2820, HU2130, HU2324, HU2501, HU2503, HU2538, HU2700, HU2820, HU2910, SS2300
4. SOCIAL RESP. & ETHICAL REASONING
   EC2001, PSY2000, SS2100, SS2200, SS2400, SS2500, SS2501, SS2502, SS2503, SS2504, SS2505, SS2600, SS2610, SS2700

B. HASS COURSES (12 CREDITS) (General Ed Website, left)

1. COMMUNICATION & COMPOSITION: ____________________________
2. HUMANITIES & FINE ARTS: ____________________________
3. SOCIAL & BEHAVIORAL SCIENCE: ____________________________
4. ANY HASS OR HASS RESTRICTED: ____________________________
   • 6 credits must be upper division 3000-4000 level courses
   • No more than 3 credits from the HASS Restricted list can be used to satisfy HASS requirements.
   • Each course can satisfy only one requirement.

C. CO-CURRICULAR ACTIVITIES (3 UNITS)
(General Ed Website, left)

PE/FA/AR/AF_____ PE/FA/AR/AF_____
PE/FA/AR/AF_____ PE/FA/AR/AF_____