

Note: Courses are 3 cr. unless noted.

<b>Programming</b>	<b>Engineering Mechanics and Materials</b>
CS 1064 Intro to Programming in Python. <i>Pre: none</i>	ESM 3054 (MSE 3054) Mech Behavior of Materials. <i>Pre: 2204, (MSE 2034 or MSE 2044 or MSE 3094 or AOE 3094 or 3684)</i>
CS 1044 Intro to Programming in C. <i>Pre: none. Not for students planning to major or minor in CS.</i>	ESM 2304 Dynamics. <i>Pre: (ESM 2104 or 2114), (MATH 2224 or MATH 2224H or MATH 2204 or MATH 2204H). Co: MATH 2214</i>
CS 2064 Intermediate Programming in Python. <i>Pre: CS 1064</i>	AOE 4054 (ESM 4444) Stability of Structures. <i>Pre: 2024 or 3024 or CEE 3404</i>
<b>Public Policy and Planning</b>	<b>MSE 2034 Elements of Materials Engineering. Pre: CHEM 1035. Co: PHYS 2305</b>
SPIA 2244 (GEOG 2244) Sustainable Urbanization. <i>Pre: none, Fee required.</i>	MSE 4304: Metals and Alloys. <i>Pre: MSE 2034 or MSE 2044. (Enrollment is on a space-available basis during drop add)</i>
SPIA 2314 (HNFE 2314) Active Transportation for a Healthy, Sustainable Planet. <i>Pre: none</i>	SBIO 2124 Structure and Properties of Sustainable Biomaterials. <i>Pre: BIOL 1005, CHEM 1035</i>
SPIA 2554 Collaborative Policy-Making & Planning. <i>Pre: none</i>	SBIO 3324 Green Building Systems. <i>Pre: none</i>
SPIA 3554 Transdisciplinary Problem Solving for Social Issues. <i>Pre: none</i>	SBIO 4314 (CEM 4314) (CNST 4314): Design of Wood Structures. <i>Pre: 3314 or CEE 3404</i>
SPIA 3704 Urban Contention and Mobilization. <i>Pre: none</i>	SBIO 4714 Performance of Sustainable Biomaterials in Buildings. <i>Pre: 2124</i>
SPIA 4454 Future of Cities.	ISE 3204 Manufacturing Processes. <i>Pre: ENGE 1216 or ENGE 1414 (Enrollment is on a space-available basis during drop add)</i>
SPIA 4464 Data and The Art of Policy-Making and Planning. <i>Pre: none</i>	<b>Statistics and Math</b>
UAP 3014 Urban Policy and Planning. <i>Pre: UAP 1024</i>	MATH 3414 (CS 3414): Numerical Methods. <i>Pre: (CS 1044 or CS 1705 or CS 1114 or CS 1124), MATH 2406H or (CMDA 2005, CMDA 2006) or (MATH 2214 or MATH 2214H), (MATH 2204 or MATH 2204H)</i>
UAP 3024 Urban and Regional Analysis. <i>Pre: none</i>	MATH 4564 Operational Methods for Engineers. <i>Pre: (MATH 2214 or 2214H) or MATH 2406H or CMDA 2006</i>
UAP 3224 Policy Implementation. <i>Pre: 3014, STAT 3604 (Contact UAP Undergrad. Advisor during drop add to enroll)</i>	STAT 4604 Statistics for Engineers. <i>Pre: MATH 1206 or MATH 1226</i>
<b>Real Estate</b>	<b>Science</b>
AAEC 4754 Real Estate Law. <i>Pre: Junior standing</i>	BIOL 1105 Principles of Biology. <i>Pre: none</i>
UAP 2004 (REAL 2004) Principles of Real Estate. <i>Pre: none</i>	CHEM 1036 General Chemistry. <i>Pre: CHEM 1035 or CHEM 1055 or CHEM 1055H</i>
<b>Sustainability, Environment, Climate Change</b>	PHYS 2306 Foundations of Physics (4cr). <i>Pre: (MATH 1206 or MATH 1206H or MATH 1226), PHYS 2305</i>
AAEC 3314 Environmental Law. <i>Pre: none</i>	GEOS 3014. Environmental Geosciences.
BSE 3324 - Small Watershed Hydrology. <i>Pre: PHYS 2305</i>	GEOS 3304 (CSES 3304) (GEOG 3304) Geomorphology. <i>Pre: GEOG 1104 or GEOS 1004 or GEOS 2104 or GEOS 2024.</i>
CEM 3074 Global Design and Construction for Sustainable Development. <i>Pre: Junior Standing</i>	GEOS 4634: Environmental Geochemistry. <i>Pre: MATH 1225, CHEM 1035.</i>
FREC 2124 Forests, Society and Climate. <i>Pre: none</i>	GEOS 4824 Engineering Geology. <i>Pre: (GEOS 1004 or GEOS 2024 or GEOS 2104), (PHYS 2305 or PHYS 2205), (CHEM 1035 or CHEM 1015), (MATH 1225 or MATH 1025)</i>
FREC 4464 (WATR 4464) (AAEC 4464) Water Resources Policy & Economics. <i>Pre: AAEC 1005 or ECON 2005</i>	<b>GIS</b>
FREC 4784 Wetland Hydrology and Biogeochemistry. <i>Pre: none</i>	GEOG 2084 Principles of GIS. <i>Pre: None</i>
ENGR 3124 Green Engineering. <i>Pre: (CHEM 1034 or CHEM 1074), (ENGE 2216 or ENGE 1104 or ENGE 1114), PHYS 2306. Restricted to those in Green Engineering Minor until drop/add.</i>	<b>Business, Management and Economics</b>
ENGR 4134 Engineering Life Cycle Assessment. <i>Pre: ENGR 3124.</i>	AAEC 2104 Personal Financial Planning. <i>Pre: none</i>
MINE 2114 Energy and Raw Materials: Geopolitics and Sustainable Development. <i>Pre: none</i>	AAEC 3324 Environment and Sustainable Development Economics. <i>Pre: AAEC 1005 (MIN grade of P) or AAEC 1006 (MIN grade of P) or ECON 2005 (MIN grade of P)</i>
SBIO 2504 Circular Economy Analytics for Sustainable Systems. <i>Pre: MATH 1025 or MATH 1225 or MATH 1524 or MATH 1535 or MATH 1525</i>	ECON 2006 Principles of Economics. <i>Pre: ECON 2005</i>
UAP 3354 Introduction to Environmental Policy and Planning. <i>Pre: none</i>	ISE 4304 Global Issues in Industrial Management. <i>Pre: none (Enrollment is on a space-available basis during drop add)</i>
UAP 4374 Land Use and Environment. Planning and Policy. <i>Pre: Junior standing</i>	