

GEOMATICS

SURVEYING & MAPPING SPECIALIZATION

UF COLLEGE OF AGRICULTURAL
AND LIFE SCIENCES

ABOUT.

This Science, Technology, Engineering, and Mathematics (STEM) major addresses spatial data collection, management, and analysis for surveying and mapping. This specialization is accredited by ABET and prepares students for entry into the surveying and mapping profession.

COURSES.

- Geomatics
- Global Positioning Systems
- Geographic Information Systems
- Measurement Science
- Photogrammetry
- Remote Sensing
- Subdivision Design
- Visualization of Spatial Information

CAREERS.

- Digital Mapping
- Global Positioning Systems
- Land Surveying
- Property and Title Law
- Road Design
- Subdivision Planning
- Unmanned Aerial Systems

REQUIRED COURSES.

| | CREDITS |
|--|---------|
| • COP 1000 Programming Logic | 3 |
| • ECO 2013 Principles of Macroeconomics OR ECO 2023 Principles of Microeconomics | 3 |
| • MAC 2311 Calculus and Analytic Geometry I (5 credits) OR MAC 1114 Trigonometry (3 credits) AND MAC 2233C Calculus for Business and Social Sciences (3 credits) | 5-6 |
| • PHY 2053 & PHY 2053L General Physics I and Lab. | 4 |
| • PHY 2054 & PHY 2054L General Physics II and Lab. | 4 |
| • SPC 1608 Public Speaking | 3 |
| • STA 2023 Elementary Statistics | 3 |

OTHER REQUIREMENTS.

- Foreign language requirement
- Minimum 2.0 cumulative GPA at each institution attended
- Obtain an Associate of Arts degree from a public community/state college. Students transferring from private institutions, state universities in Florida or institutions outside of Florida must have at least 60 semester hours of transferable credits. Vocational coursework is not accepted.
- Students must have a minimum **GPA of 2.5 in the required courses, and an overall GPA of 2.0.**

OPTIONAL COURSE TO TAKE AT HCC.

ENC 2210: Technical Writing is required for the UF major and may be completed at the community college, but is not required for admission to the College of Agricultural and Life Sciences.

ADVISORS.

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FOUR YEAR COURSE PLAN

Students MUST complete courses in **bold** before transferring to UF.

FALL SEMESTER

SPRING SEMESTER

Course codes may vary by institution

| COURSE | CREDITS |
|--|-----------|
| • ECO 2013 Principles of Macroeconomics [Core Social Science] | 3 |
| • CGS 1000 Introduction to Computers and Technology | 3 |
| • ENC 1101 English Composition I..... | 3 |
| • MAC 1105 College Algebra | 3 |
| • Biological Science and Lab [State Core Gen Ed]..... | 4 |
| TOTAL CREDITS | 16 |

| COURSE | CREDITS |
|---|-----------|
| • COP 1000 Programming Logic | 3 |
| • MAC 1114 Trigonometry | 3 |
| • ENC 1102 English Composition II | 3 |
| • Behavioral Science [PSY 2012 General Psychology recommended]..... | 3 |
| • Humanities [State Core Gen Ed]..... | 3 |
| TOTAL CREDITS | 15 |

| COURSE | CREDITS |
|---|-----------|
| • PHY 2053 & PHY 2053L [OR equivalent] General Physics I and Lab | 4 |
| • SPC 1608 Public Speaking | 3 |
| • STA 2023 Elementary Statistics | 3 |
| • Humanities Elective..... | 3 |
| • Elective | 3 |
| TOTAL CREDITS | 16 |

| COURSE | CREDITS |
|---|-----------|
| • MAC 2233C Calculus for Business and Social Sciences . | 4 |
| • PHY 2054 & PHY 2054L [OR equivalent] General Physics II and Lab | 4 |
| • ENC 2210 [OR equivalent] Technical Writing | 3 |
| • IDS 2891 Connections [HCC Capstone] | 1 |
| • History Elective [AMH 2020 Modern American History OR POS 2041 American Government recommended].. | 3 |
| TOTAL CREDITS | 15 |

University of Florida

| COURSE | CREDITS |
|---|-----------|
| • GIS 3072C Geographic Information Systems (GIS)..... | 3 |
| • SUR 3103C Geomatics | 3 |
| • SUR 3641 Survey Computations | 3 |
| • SUR 3323 Visualization of Spatial Information | 3 |
| • AEC 3033C Research and Business Writing in Agricultural and Life Sciences [if ENC 2210 Technical Writing is completed, sub for Agricultural or Life Sciences elective*] | 3 |
| TOTAL CREDITS | 15 |

| COURSE | CREDITS |
|--|--------------|
| • SUR 3331C Photogrammetry | 3 |
| • SUR 3520 Measurement Science | 3 |
| • SUR 4501C Foundations of UAS Mapping | 3 |
| • AEB 4123 Agricultural & Natural Resource Law (3 credits) OR BUL 4310 The Legal Environment of Business (4 credits) | 3-4 |
| • AEB 3133 Principles of Agribusiness Management (3 credits) OR MAN 3025 Principles of Management (4 credits) | 3-4 |
| TOTAL CREDITS | 15-17 |

SUMMER SEMESTER

| COURSE | CREDITS |
|--|---------|
| • SUR 4949 Co-op Work Experience | 2 |

| COURSE | CREDITS |
|--|--------------|
| • SUR 4201 Route Geometrics and Design | 3 |
| • SUR 4350C Advanced Photogrammetry | 3 |
| • SUR 4403 Cadastral Principles | 3 |
| • SUR 4530 Geodesy and Geodetic Positioning..... | 3 |
| • SUR 4911 Supervised Research in Geomatics | 1 |
| • FOR 4934 Florida Forest Communities (2 credits) OR FNR 3131C Dendrology/Forest Plants (3 credits) .2-3 | |
| TOTAL CREDITS | 15-16 |

| COURSE | CREDITS |
|---|-----------|
| • SUR 4430 Surveying and Mapping Practice | 3 |
| • SUR 4380 Remote Sensing | 3 |
| • SUR 4463 Subdivision Design..... | 3 |
| • SUR 4912 Senior Project | 1 |
| • Natural Resources Elective* | 3 |
| TOTAL CREDITS | 13 |

*See your UF Academic Advisor for a list of electives offered.