

Undergraduate Major Map

Catalog Year 2021
College / School Arts, Sciences & Education
Major Geosciences - BS
Track / Concentration Atmospheric Sciences
Career Path Four Year Freshman

| Fall Term 2021 The major map should be used as a general guide. Please make sure to meet regularly with your academic advisor and use your Panther Degree Audit to track your requirements. Also make sure to refer to the Major Map Endnotes for more specific information. Math placement is based on your Math Placement Score and classes are to be selected in consultation with an advisor. Pre-Calculus math sequence is , MAC1105 and MAC1147 | | | | | Term Hours: 13 Cum GPA: 2 |
|--|-----------------|--------------------------|--------------|---|--|
| Course Group | Course Required | Course Description | Credit Hours | Course Notes | |
| General Chemistry I & II | CHM 1045 | Gen Chemistry I | 3 | Also satisfies UCC Natural Science Group One lab. Corequisite: CHM1045L. | |
| General Chemistry I & II | CHM 1045L | Gen Chem Lab I | 1 | Also satisfies UCC Natural Science Group One lab. Corequisite: CHM1045. | |
| UCC Communication | ENC 1101 | Writing and Rhetoric I | 3 | | |
| UCC First Year Experience | SLS 1501 | First Year Exper | 1 | | |
| Calculus I & II | MAC 2311 | Calculus I | 4 | Prerequisites: MAC1147 or appropriate Math placement. Also satisfies UCC Mathematics Group One course | |
| First Year Seminar | ISC 1056 | First Year Sem Earth Env | 1 | | |

| Spring Term 2022 | | | | | Term Hours: 14 Cum GPA: 2 |
|--------------------------|-----------------|-------------------------|--------------|--|--|
| Course Group | Course Required | Course Description | Credit Hours | Course Notes | |
| General Chemistry I & II | CHM 1046 | Gen Chemistry II | 3 | Corequisite: CHM1046L. Prerequisite: CHM1045 with lab | |
| General Chemistry I & II | CHM 1046L | Gen Chem Lab II | 1 | Corequisite: CHM1046 | |
| UCC Communication | ENC 1102 | Writing and Rhetoric II | 3 | Prerequisite: ENC1101 | |
| Calculus I & II | MAC 2312 | Calculus II | 4 | Also satisfies UCC Mathematics Group Two course. Prerequisite: MAC2311. | |
| UCC Humanities Group One | | | 3 | May satisfy Gordon Rule with Writing (GRW) and/or Global Learning (GL) Requirement. Please speak with your advisor | |

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| Summer Term 2022 By end of Summer 1, student should have at least 30 credits. May use electives to satisfy Global Learning (GL) or Gordon Rule with Writing (GRW) requirements. Please speak with your advisor. Use this semester to catch up on coursework and satisfy some or all of the 9 credits summer requirement. | | | | Term Hours: 3 Cum GPA: 2 |
|--|-----------------|--------------------|--------------|--|
| Course Group | Course Required | Course Description | Credit Hours | Course Notes |
| UCC Social Science Group One | | | 3 | May satisfy Gordon Rule with Writing (GRW) and/or Global Learning (GL) requirement. Please speak with your advisor. (8) POS 2041 or AMH 2020 recommended if Civic Literacy requirement is not met. |

| Fall Term 2022 | | | | Term Hours: 12 Cum GPA: 2 |
|---|-----------------|----------------------|--------------|--|
| Course Group | Course Required | Course Description | Credit Hours | Course Notes |
| Physics I | PHY 2048 | Physics W/Calculus I | 4 | Pre/Co-requisite: MAC2311. Could also take PHY2053, Physics w/o Calc I. *** PHY2048/2049: Physics with Calculus is strongly recommended for students in the Atmospheric Sciences Major |
| Physics I | PHY 2048L | General Phys Lab I | 1 | Pre/Co-requisite: PHY2048/2053 |
| UCC Humanities - Group Two | | | 3 | May satisfy Gordon Rule with Writing (GRW) and/or Global Learning (GL) Requirement. Please speak with your advisor |
| Atmospheric Science Track - Additional Math | MAC 2313 | Multivariable Calc | 4 | Prerequisite: MAC2312 |

| Spring Term 2023 | | | | Term Hours: 12 Cum GPA: 2 |
|---|-----------------|----------------------|--------------|--|
| Course Group | Course Required | Course Description | Credit Hours | Course Notes |
| Physics II | PHY 2049 | Physics W/Calc II | 4 | Also satisfies UCC Natural Science Group Two course. Prerequisites: PHY2048, MAC2312. Could also take PHY2054, Physics w/o Calc II (Pre-req; PHY2053). ** PHY2048/2049: Physics with Calculus is strongly recommended for students in the Atmospheric Sciences Major |
| Physics II | PHY 2049L | General Phys Lab II | 1 | Also satisfies UCC Natural Science Group Two course. Pre/Co-requisite: PHY2049/2054 |
| Atmospheric Science Track - Additional Math | MAP 2302 | Differential Equat | 3 | Prerequisite: MAC2312 |
| Geosciences Lower Division | GLY 1010 | Physical Geology | 3 | Also satisfies UCC Natural Science Group Two course. Or can take ESC1000 or GLY3039. |
| Geosciences Lower Division | GLY 1010L | Physical Geology Lab | 1 | Also satisfies UCC Natural Science Group Two course. Or can take ESC1000L or GLY3039L with its corresponding lecture. |

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| Summer Term 2023 Use this semester to catch up on coursework and/or satisfy the 9 credits summer requirement (if needed) | | | | Term Hours: 6 Cum GPA: 2 |
|--|-----------------|--------------------|--------------|--|
| Course Group | Course Required | Course Description | Credit Hours | Course Notes |
| UCC Arts | | | 3 | May satisfy Gordon Rule with Writing (GRW) and/or Global Learning (GL) requirement. Please speak with your advisor |
| UCC Social Science Group Two | | | 3 | May satisfy Gordon Rule with Writing (GRW) and/or Global Learning (GL) Requirement. Please speak with your advisor |

| Fall Term 2023 May use electives to satisfy Global Learning (GL) or Gordon Rule with Writing (GRW) Requirements. Please speak with your advisor | | | | Term Hours: 15 Cum GPA: 2 |
|---|-----------------|-----------------------|--------------|---|
| Course Group | Course Required | Course Description | Credit Hours | Course Notes |
| Geosciences Required | OCP 3002 | Physical Oceanography | 3 | Prerequisites: CHM1045 and (PHY2048 or PHY2053) |
| Geosciences Electives | MET 4532 | Hurricanes | 3 | Or can take other List 4 course. |
| General Electives | | | 3 | |
| General Electives | | | 3 | 3000-4000 Level Electives |
| Geosciences Required | MET 3003 | General Meteorology | 3 | Prerequisite: PHY2048 or PHY2053. |

| Spring Term 2024 May use electives to satisfy Global Learning (GL) or Gordon Rule with Writing (GRW) Requirements. Please speak with your advisor | | | | Term Hours: 15 Cum GPA: 2 |
|---|-----------------|----------------------|--------------|--|
| Course Group | Course Required | Course Description | Credit Hours | Course Notes |
| Remote Sensing and Instrumentation Courses | MET 4400 | Met Instrumentation | 3 | Course from List 2: Remote Sensing and Instrumentation Courses: MET4400 or MET4410 |
| Geosciences Required | GLY 3112 | Earth thru Time | 3 | Prerequisites: GLY1010 or GLY3039 |
| Major Specific Courses | MET 4420 | Physical Meteorology | 3 | Prerequisites: PHY2048, PHY2049, and MET3003 |
| General Electives | | | 3 | |
| Geosciences Required | GLY 4822 | Intro Hydrogeology | 3 | Prerequisites: (GLY1010 or GLY3039), (PHY2048 or PHY2053), CHM1045, MAC2311 |

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| Summer Term 2024 Use this semester to catch up on coursework and/or satisfy the 9 credits summer requirement (if needed) | | | | Term Hours: 1 Cum GPA: 2 |
|--|-----------------|--------------------|--------------|---|
| Course Group | Course Required | Course Description | Credit Hours | Course Notes |
| General Electives | | | 1 | Research Credit or Internship recommended |

| Fall Term 2024 Please speak with your advisor about applying for graduation. May use electives to satisfy Global Learning (GL) or Gordon Rule with Writing (GRW) Requirements. Please speak with your advisor | | | | Term Hours: 15 Cum GPA: 2 |
|--|-----------------|-----------------------|--------------|--|
| Course Group | Course Required | Course Description | Credit Hours | Course Notes |
| Major Specific Courses | MET 4301 | Dynamic Meteorology I | 3 | Prerequisite: PHY2048 |
| Major Specific Courses | MET 4102 | Physical Climatology | 3 | Prerequisites: PHY2054 or PHY2049. |
| Additional Weather Forecasting | MET 4300 | Severe Weather | 3 | Prerequisite: MET3003. Or can take two semesters of MET4520L; only offered Spring terms. |
| General Electives | | | 3 | 3000-4000 Level Electives |
| General Electives | | | 3 | |

| Spring Term 2025 May use electives to satisfy Global Learning (GL) or Gordon Rule with Writing (GRW) requirements. Please speak with your advisor. May use electives to satisfy the Elective Outside the Major requirement (if needed) | | | | Term Hours: 14 Cum GPA: 2 |
|---|-----------------|--------------------------|--------------|--|
| Course Group | Course Required | Course Description | Credit Hours | Course Notes |
| Senior Seminar | ISC 4935 | Senior Seminar in E&E | 1 | |
| Major Specific Courses | MET 4302 | Dynamic Meteorology II | 3 | Prerequisites: PHY2048, PHY2049, MET4301 |
| Major Specific Courses | MET 3502 | Synoptic Meteorology | 3 | Prerequisite: MET3003 |
| Major Specific Courses | MET 3502L | Synoptic Meteorology Lab | 1 | Corequisite: MET3502 |
| General Electives | | | 3 | 3000-4000 Level Electives |
| General Electives | | | 3 | |

| | | | | |
|--|--|--|--|-------------------|
| Summer Term 2025 Use this semester to catch up on coursework and/or satisfy the 9 credits summer requirement (if needed) | | | | Cum GPA: 2 |
|--|--|--|--|-------------------|

Undergraduate Major Map

General Requirements

Critical Indicator is the minimum grade indicated in specific courses to demonstrate proficiency and progress in major. Earning less than the minimum grade is a trigger for a conversation with advisor

GENERAL UNIVERSITY REQUIREMENTS See your Panther Degree Audit (PDA) for a real-time update on your academic career progress and additional information on University and major requirements at <http://my.fiu.edu>.

(1) UCC: Students must meet the University Core Curriculum (UCC) requirements. For a full list of UCC courses, see <http://undergrad.fiu.edu/advising/curriculum.html> or speak with your advisor. UCC courses must be taken for a letter grade and may not be taken at other institutions without permission from the Dean of Undergraduate Education.

(2) Global Learning: Freshmen entering FIU Summer B 2010 or later must take at least two Global Learning (GL) designated courses at FIU. See <http://goglobal.fiu.edu>. Courses must be: - 1 GL foundation course (from the University Core Curriculum), which must be taken within the first 60 credits.- 1 GL discipline-specific course (3000/4000 level)

(3) Summer Hours Requirement: All students entering FIU or any university within the State University System (SUS) of Florida with fewer than 60 credit hours are required to earn at least nine credit hours prior to graduation by attending one or more summer terms at a university in the SUS.

(4) Gordon Rule: All Gordon Rule courses (i.e., English Composition, Humanities with Writing, and Quantitative Reasoning) must be completed with a minimum grade of "C." This requirement must be fulfilled within the first 60 credits.

(5) Foreign Language Requirement for Graduation (FLENT/FLEX): A student who did not complete two years of the same foreign language in high school or at a post-secondary institution must successfully complete 8-10 credit hours of instruction in one foreign language prior to graduation. Exceptions include appropriate CLEP, AP, IB, TOEFL, or transfer credit. Contact your advisor for more information.

(6) Postsecondary Civic Literacy (CL): Students must demonstrate understanding of American Civics via completed course work or test credit. Consult with an advisor to determine the best option for satisfying this requirement.

(7) Summer Enrollment. Students transferring to FIU with less than 60 credits are required to earn at least 9 credits during one or more summer terms at FIU or any other university in the State University System of Florida. Courses may be completed in person or online

Grades: Students must earn a grade of "C" or higher in all courses required for the major. A grade of "C-" or lower is not acceptable in any required course.

College of Arts, Sciences & Education:Upper Division Credit Requirement

Requires completion of 45 credits upper division (3000 and 4000 level). We recommend checking your degree audit and coordinating with your assigned advisor.

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This document only lists SELECTED requirements.

See your Panther Degree Audit for a full list of CASE and major requirements at <http://my.fiu.edu>.

Major specific requirements

1. ISC 1056 First Year Seminar (1 unit)
2. Geoscience Essentials (12 units)
3. Atmospheric Major Specific Courses (16 units)
4. Remote Sensing and Instrument (3 units)
5. Weather Forecasting (2-3 units)
6. Geosciences electives (6 units)
7. ISC 4935 Senior Seminar (1 unit)