

Marine Sciences (BS): Physics (17MARSCBS-17MARSCPHY)

Critical Path Courses – Identify using the code (CP) which courses are considered critical path courses which represent specific major requirements that are predictive of student success in a given program/plan. Place the (CP) next to the credit hours for the course.

Freshman Year

| Fall Semester | Credit | Spring Semester | Credit |
|---|--------|--|--------|
| MA 141 Calculus I ^{1,A} | 4 CP | CH 101 Chemistry- Molecular Sci ^{1,B} | 3 |
| MEA 100 Earth System Science ^{2,G,J} | 4 | CH 102 General Chemistry Lab ^{3,B} | 1 |
| COS 100 Science of Change ^{G,4} | 2 | ENG 101 Academic Writing & Research ^{1,H} | 4 |
| PY 201 University Physics I ^{1,5} | 4 CP | MA 241 Calculus II ^{1,A} | 4 CP |
| | | PY 202 University Physics II ^{1,5} | 4 CP |
| | 14 | | 16 |

Sophomore Year

| Fall Semester | Credit | Spring Semester | Credit |
|--|--------|--|--------|
| MA 242 Calculus III ³ | 4 | CH 201 Chemistry – Quant Sci ^{1,B} | 3 |
| MEA 200 Intro to Oceanography ² | 3 CP | CH 202 Quant Chemistry Lab ³ | 1 |
| MEA 210 Oceanography Lab ² | 1 | Computer Science Option ^{3,6} | 3 |
| PY 203 University Physics III ^{1,5} | 4 | MA 341 Applied Differential Eqns I ³ | 3 |
| GEP Social Sciences Reqt. ^D | 3 | MEA 250 Intro to Coastal Environments ² | 3 |
| | | PY 411 Mechanics ² | 3 |
| | 15 | | 16 |

Junior Year

| Fall Semester | Credit | Spring Semester | Credit |
|---|--------|--|--------|
| GEP Humanities Req ^t . ^C | 3 | MEA 462 Obser Method & Data Analysis ² | 3 |
| MA 401 Applied Differential Eqns II ³ | 3 | MEA 467 Marine Meteorology ² | 3 |
| MEA 460 Physical Oceanography ² | 3 | MEA 495 Junior Seminar | 1 |
| HES_*** Health & Exercise Studies Course ^E | 1 | PY 413 Thermal Physics ² | 3 |
| PY 411 Mechanics ² | 3 | ST 370 Prob & Stat for Engineers ³ | 3 |
| | | GEP Addtl. Breadth Req ^t . ^F | 3 |
| | 13 | | 16 |

Summer

| Summer Session | Credit |
|--|--------|
| MEA 459 Coastal Processes ² | 5 |

Senior Year

| Fall Semester | Credit | Spring Semester | Credit |
|---|--------|---|--------|
| Advanced Writing Elective ⁸ | 3 | MEA 464 Ocean Circulations Sys ² | 3 |
| GEP Social Sciences Req ^t . ^D | 3 | PY 415 Electromagnetism II ² | 3 |
| HES_*** Health & Exercise Studies Course ^E 1 | 1 | GEP Humanities Requirement ^C | 3 |
| MEA 463 Fluid Physics ² | 3 | Technical Elective ^{2,7} | 3 |
| PY 414 Electromagnetism I ² | 3 | | |
| | 13 | | 12 |

Major/Program Footnotes

1. Grade of C- or higher required in CH 101, 201; ENG 101; MA 141, 241; PY 201, 202, 203.
2. No more than one D will be accepted in MEA core courses and concentration courses.
3. No more than one D will be accepted in other basic math or science courses
4. COS 100 is for new freshmen only. Transfer students will need to select a course from the GEP Interdisciplinary Perspectives course list.
5. Students may substitute PY 205 for PY 201, PY 208 for PY 202, and PY 407 for PY 203. However, they must take the lab section of PY 203 if they elect to take PY 407.
6. CSC 111, CSC 112, CSC 113, CSC 116 or PY 251.
7. Technical Electives are courses at the 300 level or above in physical, mathematical, or biological sciences and in engineering.
8. Advanced Writing Elective must be selected from ENG 331, ENG 332, and ENG 333. It satisfies the Communication in the Major Co-Requisite.

* General Education Program (GEP) requirements and GEP Footnotes

To complete the requirements for graduation and the General Education Program, the following category credit hours and co-requisites must be satisfied. University approved GEP course lists for each of the following categories can be found at <http://oucc.dasa.ncsu.edu/general-education-program/>.

A. Mathematical Sciences (6 credit hours; one course with MA or ST prefix)

*Choose from the University approved GEP Mathematical Sciences course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: **MA 141, MA 241***

B. Natural Sciences (7 credit hours; include one laboratory course or course with a lab)

*Choose from the University approved GEP Natural Sciences course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: **CH 101, CH 102, CH 201***

C. Humanities (6 credit hours selected from two different disciplines/course prefixes)

Choose from the University approved GEP Humanities course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: none

D. Social Sciences (6 credit hours selected from two different disciplines/course prefixes)

Choose from the University approved GEP Social Sciences course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: none

E. Health & Exercise Studies (2 credit hours; at least one 100-level Fitness and Wellness Course)

Choose from the University approved GEP Health & Exercise Studies course list.

F. Additional Breadth (3 credit hours to be selected from the following checked University approved GEP course lists)

X Humanities/Social Sciences/Visual and Performing Arts

G. Interdisciplinary Perspectives (5-6 credit hours)

*Choose from the University approved GEP Interdisciplinary Perspectives course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: **COS 100, MEA 100***

H. Introduction to Writing (4 credit hours satisfied by completing ENG 101 with a C- or better)

The following **Co-Requisites** must be satisfied to complete the General Education Program requirements

I. U.S. Diversity (USD)

Choose from the University approved GEP U.S. Diversity course list or choose a course identified on the approved GEP course lists as meeting the U.S. Diversity (USD) co-requisite. The following course(s) completed as part of the Major requirements may fulfill this requirement: none

J. Global Knowledge (GK)

*Choose from the University approved GEP Global Knowledge course list or choose a course identified on the approved GEP course lists as meeting the Global Knowledge (GK) co-requisite. The following course(s) completed as part of the Major requirements may fulfill this requirement: **MEA 100***

K. Foreign Language proficiency Proficiency at the FL_102 level is required for graduation.