

# **Unofficial Degree Planning Worksheet**

# *Catalog Year: 2019-2020*

# BS in MARINE SCIENCE - BIOLOGY

| This worksheet is designed to help you plan and track your progress toward your degree. It lists all the graduation requirements. For full course descriptions, please refer to the current undergraduate [Catalog](http://www.ut.edu/catalog). | Course Taken or Transferred In | Semester Taken or Course Remaining |
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| UNIVERSITY GRADUATION REQUIREMENTS |
| [ ] Students must earn 124 hours to be eligible for graduation.[ ] Students must maintain an overall GPA of a 2.0 to be eligible for graduation.[ ] Students must complete 31 of the last 35 hours in residency at UT. |
| BACCALAUREATE EXPERIENCE REQUIREMENTS***Courses used for Baccalaureate Experience may not be used in the major (unless otherwise stated in the catalog).*** |
| Two-Year Learning Community |
| BAC 100 (0cr) – Digital Skills |  |  |
| BAC/HON 101/102 (2cr) – First-Year Seminar (two semester sequence)BAC 103 (1cr) – Transfer Student Seminar (one semester course) *- Optional*BAC 104 (1cr) – Veteran Student Seminar (one semester course) |  |  |
| AWR 101 (4cr) – Writing and Inquiry* *Domestic Students may be required to take AWR 100 based on English Placement.*
* *International Students may be required to take AWR 110 before AWR 101 or AWR 111 in conjunction with AWR 101 based on English Placement.*
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| AWR 201 (4cr) – Writing and Research *Recommended to take in the second year* |  |  |
| Mathematics (4cr) – MAT 260 – Calculus I **– FULLFILLED BY MAJOR** |  |  |
| Natural Science – NS (6 Credits) – FULLILLED BY MAJOR***Must be lecture course, not a lab.*** |
| Biological Science (3cr) – BIO 198 – General Biology I |  |  |
| Chemical or Physical Science (3cr) – CHE 152 – General Chemistry I |  |  |
| Humanities – HFA (11 Credits) |
| * *Must have at least two different disciplines represented.*
* *May only apply up to 4 credits of Studio/Performance courses.*

*Courses to fulfill this requirement may be found in the following disciplines: animation, dance, english/literature, film, foreign languages, linguistics, music, new media, philosophy, religion, speech and theatre, plus those art, communication, writing and women’s and gender studies courses so designated in the Course Descriptions section of the catalog.* |  |  |
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| Social Science – SS (11 Credits) |
| * *Must have at least two different disciplines represented.*

*Courses to fulfill this requirement may be found in the following disciplines:* *economics, geography, history, political science, psychology, sociology, and urban studies, plus those communication, criminology, law justice and advocacy, and women’s and gender studies courses so designated in the Course Descriptions section of the catalog.* |  |  |
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| Art/Aesthetic – A (3 Credits)***Can come from anywhere in the curriculum.*** |
| *Art/aesthetic courses are devoted primarily to the development of skills in human expression for the purpose of engaging the aesthetic sense, or courses devoted primarily to the development of students’ critical appreciation of aesthetics. Courses can be found in multiple disciplines, see Course Search or Catalog to find courses.* |  |  |
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| Non-Western and International/Global Awareness – NW/IG (9 Credits)***Can come from anywhere in the curriculum.*** |
| Non-Western (3cr) *Deal in either a direct or comparative way with political, social, or cultural issues within the context of non-Western or Third World concerns.* |  |  |
| International/Global Awareness (3cr)*Deal in a direct or comparative way with political, social, cultural or economic issues impacting the international and/or global arena.* |  |  |
| Non-Western or International/Global Awareness (3cr) |  |  |
| Writing Intensive – W (9 Credits)***Can come from anywhere in the curriculum.*** |
| *Courses in addition to AWR 101 and AWR 201 that emphasize writing as a process of learning and communicating. Some credits may be waived for transfer students, please refer to the Catalog for more information.* |  |  |
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| MAJOR REQUIREMENTS (76-81 Credits) |
| Core Courses (25-29 Credits) |
| Biology Lower Core (16-20 Credits): |
| CHE 152 (3cr) – General Chemistry I***Pre-Req:*** *MAT 160****Pre/Co-Req:*** *CHE 153L (with grade of C or better)* |  |  |
| CHE 153L (1cr) – General Chemistry I Laboratory***Pre/Co-Req:*** *CHE 152 (with grade of C or better)* |  |  |
| CHE 154 (3cr) – General Chemistry II***Pre-Req:*** *CHE 152 and CHE 153L (both with a grade of C or better)****Pre/Co-Req:*** *CHE 155L (with grade of C or better) and MAT 170* |  |  |
| CHE 155L (1cr) – General Chemistry II Laboratory***Pre-Req:*** *CHE 152 and CHE 153L (both with a grade of C or better)****Pre/Co-Req:*** *CHE 154 (with grade of C or better)* |  |  |
| BIO 198 (3cr) – General Biology I***Pre/Co-Req:*** *CHE 152 and CHE 153L****Co-Req:*** *BIO 198L* |  |  |
| BIO 198L (1cr) – General Biology I Laboratory***Pre/Co-Req:*** *CHE 152 and CHE 153L****Co-Req:*** *BIO 198* |  |  |
| BIO 199 (3cr) – General Biology II***Pre-Req:*** *BIO 198 and BIO 198L (both with a grade of C or better)****Co-Req:*** *BIO 199L* |  |  |
| BIO 199L (1cr) – General Biology II Laboratory***Pre-Req:*** *BIO 198 and BIO 198L (both with a grade of C or better)****Co-Req:*** *BIO 199* |  |  |

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| MAT 170 (4cr) – Precalculus (*May be waived if student is placed directly into MAT 260 Calculus I.)****Pre-Req:*** *MAT 160 or equivalent* |  |  |
| Upper Core (9 Credits) |
| BIO 200 (4cr) – General Genetics***Pre-Req:*** *Biology Lower Core.* ***Co-Req:*** *BIO 200L***OR**BIO 201 (4cr) – Molecular Genetics***Pre-Req:*** *Biology Lower Core.* ***Co-Req:*** *BIO 201L* |  |  |
| MAT 260 (4cr) – Calculus I***Pre-Req:*** *MAT 170 with a grade of “C” or higher, or equivalent*  |  |  |
| BIO 410 (1cr) – Senior Seminar***Pre-Req:*** *Senior standing in biology or marine science***OR**BIO 420 (1cr) – Recent Discoveries in Biology***Pre-Req:*** *Students must have completed the Biology lower-core and either General Genetics or Molecular Genetics and have a minimum GPA of 3.0 and have senior status or permission of instructor.* |  |  |
| BIO 411 (0cr) – Biology Outcomes Capstone***Pre-Req:*** *Senior standing in all majors offered through the Department of Biology. Must be taken during graduation semester.* |  |  |
| Collateral Courses (16 Credits) |
| CHE 232 (3cr) – Organic Chemistry I***Pre-Req:*** *CHE 154 and CHE 155L (both with a grade of “C” or better)* ***Pre/Co-Req:*** *CHE 233L (with a grade of “C” or better* |  |  |
| CHE 233L (1cr) – Organic Chemistry I Laboratory***Pre/Co-Req:*** *CHE 232 (with a grade of “C” or better* |  |  |
| CHE 234 (3cr) – Organic Chemistry II***Pre-Req:*** *CHE 232 and CHE 233L (both with a grade of “C” or better)* ***Pre/Co-Req:*** *CHE 235L (with a grade of “C” or better* |  |  |
| CHE 235L (1cr) – Organic Chemistry II Laboratory***Pre/Co-Req:*** *CHE 234 (with a grade of “C” or better* |  |  |
| PHY 200 (4cr) – General Physics I***Pre-Req:*** *MAT 170****Co-Req:*** *PHY 200L***OR**PHY 205 (4cr) – General Physics with Calculus I***Pre-Req:*** *MAT 170 or equivalent****Co-Req:*** *MAT 260 and**PHY 205L* |  |  |
| PHY 201 (4cr) – General Physics II***Pre-Req:*** *PHY 200****Co-Req:*** *PHY 201L***OR**PHY 206 (4cr) – General Physics with Calculus II***Pre-Req:*** *MAT 260 and PHY 205 with a grade of “C” or better****Co-Req:*** *PHY 206L* |  |  |

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| MARINE SCIENCE REQUIREMENTS (24 Credits): |
| MAR 200 (3cr) – Introduction to Marine Science |  |  |
| Ecology Elective (4 Credits)Choose **one** of the following:* MAR 222 – Marine Ecology *(Pre-Req: Biology Lower Core and MAR 200. Co-Req: MAR 222L)*
* BIO 212 – Ecology *(Pre-req: Biology Lower-Core. Co-Req: BIO 212L)*
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| Ecology Elective (4cr) |  |  |
| Cellular/Physiology (Category I) Elective (4 Credits)Choose **one** of the following:* BIO 227 – Ecological Physiology *(Pre-Req: Biology Lower-Core)*
* BIO 307 – Microbiology *(Pre-Req: Biology Lower-Core)*
* BIO 310 – Developmental Biology *(Pre-Req: Biology Lower-Core BIO 200 or BIO 201; BIO 250 recommended)*
* BIO 315 – Virology *(Pre-Req: Biology Lower-Core)*
* BIO 330 – General Physiology *(Pre-Req: Biology Lower-Core)*
* BIO 350 – Cell Biology *(Pre-Req: Biology Lower-Core and CHE 232)*
* BIO 355 – Conservation, Evolutionary and Ecological Genetics *(Pre-Req: Biology Lower-Core and BIO 200 or BIO 201)*
* BIO 360 – Immunology *(Pre-Req: Biology Lower-Core and CHE 232; BIO 307 is recommended)*
* BIO 370 – Molecular Biology *(Pre-Req: Biology Lower-Core)*
* BIO 390 – Essentials of Electron Microscopy *(Pre-Req: Biology Lower-Core and consent of instructor)*
* BIO 408 – Bioinformatics and Genomics *(Pre-Req: Biology Lower-Core and one of the following: BIO 200, BIO 201, BIO 370, or CHE 320)*
* CHE 320 – Biochemistry *(Pre-Req: CHE 234 and CHE 235L (both with a grade of "C" or better))*
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| Organismal Invertebrate Elective (4cr) |  |  |
| Organismal Invertebrate Elective (4 Credits)Choose **one** of the following:* BIO 224 – Invertebrate Zoology *(Pre-Req: Biology Lower-Core. Co-Req: BIO 224L)*
* MAR 226 – Marine Invertebrate Zoology *(Pre-Req: Biology Lower-Core and MAR 200. Co-Req: MAR 226L)*
 |
| Organismal Invertebrate Elective (4cr) |  |  |
| Organismal Vertebrate Elective (4 Credits)Choose **one** of the following:* BIO 225 –Vertebrate Zoology *(Pre-Req: Biology Lower-Core. Co-Req: BIO 225L)*
* BIO 250 – Comparative Vertebrate Anatomy *(Pre-Req: Biology Lower-Core. Co-Req: BIO 250L)*
 |
| Organismal Vertebrate Elective (4cr) |  |  |
| Organismal Botany Elective (4 Credits) |
| MAR 327 (4cr) – Marine Botany***Pre-Req:*** *Biology lower-core and MAR 200****Co-Req:*** *MAR 327L* |  |  |
| Oceanography/Marine Science Electives Choose **one** of the following: * MAR 201 – Origins & Evolution of the Marine Environment (Laboratory Included) *(Pre-Req: MAR 200. Co-Req: MAR 201L)*
* MAR 301 – Physical Oceanography *(Pre/Co-Req: PHY 201 or PHY 206)*
* MAR 310 – Biological Oceanography *(Pre-Req: Biology Lower-Core and MAR 200. Co-Req: MAR 310L)*
* CHE 315 – Chemical Oceanography *(Pre-Req: BIO 198, BIO 198L, BIO 199, BIO 199L, CHE 234, CHE 235L, MAR 200, and MAT 260 (each with a grade of “C” or better))*
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| Oceanography/Marine Science Electives (4cr) |  |  |

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| Major Electives (8 Credits)*Any upper division biology courses consisting of those courses above BIO 199, ENS courses above 200 or MAR courses above 200 may be used to fulfill the remaining elective requirements excluding BIO 410, BIO 440, BIO 445, BIO 450, BIO 480, BIO 490 and BIO 495.* |
| BIO Major Elective (4cr) |  |  |
| BIO Major Elective (4cr) |  |  |
| Major Residency Requirements (15 Credits) |
| *Students must complete at least 15 credit hours in the student’s major.* |
| Major GPA Requirements |
| *Students must maintain a major GPA of a 2.0 to be eligible for graduation.* |