

# **Unofficial Degree Planning Worksheet**

# *Catalog Year: 2019-2020*

# BS in BIOCHEMISTRY, ASBMB-ACCREDITED

| 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 (75 Credits) |
| 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 must be completed 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 must be completed with a grade of "C" or better****Co-Req:*** *BIO 199* |  |  |
| BIO 201 (4cr) – Molecular Genetics***Pre-Req:*** *Biology lower-core curriculum.****Co-Req:*** *BIO 201L* |  |  |
| BIO 201L (0cr) – Molecular Genetics Laboratory***Pre-Req:*** *Biology lower-core curriculum.****Co-Req:*** *BIO 201* |  |  |
| 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* |  |  |

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| 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)* |  |  |
| 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* |  |  |
| CHE 310 (4cr) – Analytical Chemistry***Pre-Req:*** *CHE 154 and CHE 155L (both with a grade of "C" or better).****Co-Req:*** *CHE 310L* |  |  |
| CHE 310L (0cr) – Analytical Chemistry Laboratory***Co-Req:*** *CHE 310* |  |  |
| 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* |  |  |
| MAT 260 (4cr) – Calculus I***Pre-Req:*** *MAT 170 with a grade of “C” or higher, or equivalent*  |  |  |
| CHE 305 (3cr) – Applied Physical Chemistry***Pre-Req:*** *MAT 260 (with a grade of "C" or better) and either PHY 200 or PHY 205.* ***Pre/Co-Req*** *CHE 310 (with a grade of "C" or better).* |  |  |
| CHE 320 (3cr) – Biochemistry***Pre-Req:*** *CHE 234 and CHE 235L (both with a grade of "C" or better).* |  |  |
| CHE 320L (1cr) – Biochemistry Laboratory***Pre/Co-Req:*** *CHE 320 (with a grade of "C" or better).* |  |  |
| CHE 325 (3cr) – Biochemistry of Metabolism***Pre-Req:*** *CHE 320 (with a grade of "C" or better).* |  |  |
| CHE 420 (4cr) – Advanced Biochemistry***Pre-Req:*** *CHE 320 and CHE 320L (both with a grade of "C" or better).* |  |  |
| CHE 451 (4cr) – Capstone Chemical Research***Pre-Req:*** *consent of instructor* |  |  |
| CHE 454 (1cr) – Capstone Chemical Communication***Pre-Req:*** *completion of at least two hours of CHE 451.* |  |  |
| CHE 470 (4cr) – Tissue Culture***Pre-Req:*** *CHE 320 and CHE 320L (both with a grade of "C" or better) and BIO 198* |  |  |

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| CHE 490 (4cr) – Molecular Basis of Cancer***Pre-Req:*** *CHE 320 and CHE 320L (each with a grade of “C” or better); CHE 470 is also preferred.* |  |  |
| Major Elective (4 Credits) Choose one of the following Lecture/Laboratory pairs:* BIO 307– Microbiology *(Pre-Req: Biology lower-core curriculum. Co-Req: BIO 307L)*
* BIO 307L – Microbiology Laboratory *(Pre-Req: Biology lower-core curriculum. Co-Req: BIO 307)*
* BIO 310 – Developmental Biology *(Pre-Req: Biology lower-core curriculum; BIO 200 or BIO 201; BIO 250 recommended. Co-Req: BIO 310L)*
* BIO 310L – Developmental Biology Laboratory *(Pre-Req: Biology lower-core curriculum; BIO 200 or BIO 201; BIO 250 recommended. Co-Req: BIO 310)*
* BIO 315 – Virology *(Pre-Req: Biology lower-core curriculum. Co-Req: BIO 315L)*
* BIO 315L – Virology Laboratory *(Pre-Req: Biology lower-core curriculum. Co-Req: BIO 315)*
* BIO 330 – General Physiology *(Pre-Req: Biology lower-core curriculum. Co-Req: BIO 330L)*
* BIO 330L – General Physiology Laboratory *(Pre-Req: Biology lower-core curriculum. Co-Req: BIO 330)*
* BIO 350 – Cell Biology *(Pre-Req: Biology lower-core curriculum and CHE 232. Co-Req: BIO 350L)*
* BIO 350L – Cell Biology Laboratory *(Pre-Req: Biology lower-core curriculum and CHE 232. Co-Req: BIO 350)*
* BIO 360 – Immunology *(Pre-Req: Biology lower-core curriculum and CHE 232; BIO 307 is recommended.. Co-Req: BIO 360L)*
* BIO 360L – Immunology Laboratory *(Pre-Req: Biology lower-core curriculum and CHE 232; BIO 307 is recommended. Co-Req: BIO 360s)*
* BIO 370 – Molecular Biology *(Pre-Req: Biology lower-core curriculum. Co-Req: BIO 370L)*
* BIO 370L – Molecular Biology Laboratory *(Pre-Req: Biology lower-core curriculum. Co-Req: BIO 370)*
* BIO 390 – Essentials of Electron Microscopy *(Pre-Req: Biology lower-core curriculum and consent of instructor. Co-Req: BIO 390L)*
* BIO 390L – Essentials of Electron Laboratory *(Pre-Req: Biology lower-core curriculum and consent of instructor. Co-Req: BIO 390)*
* BIO 408 – Bioinformatics and Genomics (*Pre-Req: Biology lower-core curriculum and one of the following: BIO 200, BIO 201, BIO 370, or CHE 320. Co-Req: BIO 408L)*
* BIO 408L – Bioinformatics and Genomics Laboratory *(Pre-Req: Biology lower-core curriculum and one of the following: BIO 200, BIO 201, BIO 370, or CHE 320. Co-Req: BIO 408)*
 |
| BIO Major Elective Lecture (4cr) |  |  |
| BIO Major Elective Laboratory (0cr) |  |  |
| 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.* |