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| **Southern University and A&M College College of Sciences and Engineering – Department of Biology and Chemistry Bachelor of Science in Chemistry/Bachelor of Science in Chemical Engineering**  **Degree Requirements: 116 Credit Hours**  **Catalog Year: 2017 – 2020** | | | | | **Student’s Name:**  **Student’s U#:**  **Semester Entered SU:**  **Date:** | | | |
| **First Year** | | | | | | | | |
| **1st Semester** | **Course** | **Course Title** | **Credits** | **Semester Taken** | | **Grade Earned** | **Transfer Institution** | **Course Notes** |
| FRMN 110B | Freshman Seminar I | 1 |  | |  |  | As of Spring 2022: FRMN 120 or 121 (2 ch) |
| SENL 101B | Freshman Composition | 3 |  | |  |  |  |
| SMAT 211B | Calculus I | 4 |  | |  |  | Pre-requisite: Placement Score, MATH135/140,SMAT121B/122B |
| SCHE 132B | General Chemistry Lecture I | 3 |  | |  |  | Pre-requisites: MATH 135/SMAT 121B |
| SCHE 132LB | General Chemistry Lab I | 1 |  | |  |  | Co-requisite: SCHE 132B |
| SPHY 213B | General Physics Lecture I | 3 |  | |  |  | Pre/Co-requisite: SMAT 211B |
| SPHY 213LB | General Physics Lab I | 1 |  | |  |  | Co-requisite: SPHY 213B |
| **TOTAL SEMESTER HOURS** | | **16** |  | |  |  |  |
|  | | | | | | | | |
| **2nd Semester** | **Course** | **Course Title** | **Credits** | **Semester Taken** | | **Grade Earned** | **Transfer Institution** | **Course Notes** |
| FRMN 111B | Freshman Seminar II | 1 |  | |  |  | Pre-requisite: FRMN 110B; See FRMN 110B |
| SENL 102B | Freshman Composition | 3 |  | |  |  | Pre-requisite: SENL 101B |
| SMAT 212B | Calculus II | 4 |  | |  |  | Pre-requisite: SMAT 211B |
| SCHE 133B | General Chemistry Lecture II | 3 |  | |  |  | Pre-requisite: SCHE 132B |
| SCHE 133LB | General Chemistry Lab II | 1 |  | |  |  | Co-requisite: SCHE 133B |
| SPHY 215B | General Physics Lecture II | 3 |  | |  |  | Pre/Co-requisite: SPHY 213B, SMAT 212B |
| SPHY 214LB | General Physics Lab II | 1 |  | |  |  | Co-requisite: SPHY 215B |
| **TOTAL SEMESTER HOURS** | | **16** |  | |  |  |  |
| **Second Year** | | | | | | | | |
| **1st Semester** | **Course** | **Course Title** | **Credits** | **Semester Taken** | | **Grade Earned** | **Transfer Institution** | **Course Notes** |
| SCHE 230B | Organic Chemistry Lecture I | 3 |  | |  |  | Pre-requisite: SCHE 133B and SCHE 133LB |
| SCHE 220B | Organic Chemistry Lab I | 1 |  | |  |  | Pre-requisite: SCHE 133B and SCHE 133LB  Co-requisite: SCHE 230B |
| MATH 364B | Calculus III | 4 |  | |  |  | Pre-requisite: SMAT 212B |
| CHEM 242B | Quantitative Analysis Lecture | 3 |  | |  |  | Pre-requisite: SCHE 132B,132LB, 133B/133LB |
| SCHE 243B | Quantitative Analysis Lab | 1 |  | |  |  | Prerequisites: SCHE 133B/133LB  Co-requisite: CHEM 242 |
| SENL 240B | Intro to African American Lit | 3 |  | |  |  | Pre-requisite: SENL 101B, 102B |
| **TOTAL SEMESTER HOURS** | | **15** |  | |  |  |  |
|  | | | | | | | |  |
| **2nd Semester** | **Course** | **Course Title** | **Credits** | **Semester Taken** | | **Grade Earned** | **Transfer Institution** | **Course Notes** |
| SCHE 231B | Organic Chemistry Lecture II | 3 |  | |  |  | Pre-requisite: SCHE 230B |
| SCHE 221B | Organic Chemistry Lab II | 2 |  | |  |  | Pre-requisite: SCHE 230B/220B  Co-requisite: SCHE 231B |
| MATH 370B | Ordinary Differential Equations | 4 |  | |  |  | Pre-requisite: MATH 364B |
|  | Humanities Elective | 3 |  | |  |  | PHIL 200, 210 or HUMN 241, 242, 244, 366 |
|  | Social Science Elective**‡** | 3 |  | |  |  | **‡**SPSY 201B for Pre-Med Chem Majors |
| **TOTAL SEMESTER HOURS** | | **15** |  | |  |  |  |

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| **Third Year** | | | | | | | |
| **1st Semester** | **Course** | **Course Title** | **Credits** | **Semester Taken** | **Grade Earned** | **Transfer Institution** | **Course Notes** |
| CHEM 312B | Physical Chemistry Lecture I | 3 |  |  |  | Pre-requisites: SCHE 230B,231B; SMAT 212B  Co-requisite: CHEM 314B |
| CHEM 314B | Physical Chemistry Lab I | 1 |  |  |  | Co-requisite: CHEM 312B |
| ME 2733 (LSU) | Materials of Engineering | 3 |  |  |  | Pre-requisite: SCHE 132B  Pre-/Co-requisite: SPHY 215B |
|  | Foreign Language Sequence I | 3 |  |  |  |  |
|  | Arts Elective | 3 |  |  |  | ARTS 200 or MUSC 200 |
| CHEM 340B | Biochemistry Lecture I† | 3 |  |  |  | Pre-requisites: SCHE 230B,231B  Co-requisite: CHEM 342B |
| CHEM 342B | Biochemistry Lab I† | 1 |  |  |  | Pre-requisites: SCHE 230B,231B  Co-requisite: CHEM 340B |
| **TOTAL SEMESTER HOURS** | | **13** |  |  |  |  |
|  | | | | | | | |
| **2nd Semester** | **Course** | **Course Title** | **Credits** | **Semester Taken** | **Grade Earned** | **Transfer Institution** | **Course Notes** |
| CHEM 313B | Physical Chemistry Lecture II | 3 |  |  |  | Pre-requisites: CHEM 312B, 314B; SMAT 212B Co-requisite: CHEM 315B |
| CHEM 315B | Physical Chemistry Lab II | 1 |  |  |  | Pre-requisites: CHEM 312B, 314B; SMAT 212B Co-requisite: CHEM 313B |
|  | Foreign Language Sequence II | 3 |  |  |  | Must be same language as FL Seq I |
| SHIS/HIST XXX | History Elective | 3 |  |  |  |  |
| CHEM 341B | Biochemistry Lecture II† | 3 |  |  |  | Pre-requisite: CHEM 340B |
| CHEM 343B | Biochemistry Lab II† | 1 |  |  |  | Prerequisites: CHEM 340B, 342B  Co-requisite: CHEM 341B |
| **TOTAL SEMESTER HOURS** | | **10** |  |  |  |  |
| **Fourth Year** | | | | | | | |
| **1st Semester** | **Course** | **Course Title** | **Credits** | **Semester Taken** | **Grade Earned** | **Transfer Institution** | **Course Notes** |
| CHEM 443B | Inorganic Chemistry Lecture**#** | 3 |  |  |  | Pre-requisite: CHEM 313B |
| CHEM 440B | Inorganic Chemistry Lab**#** | 2 |  |  |  | Pre-requisites: CHEM 313B and 315B |
| CHEM 422B | Chemical Research | 2 |  |  |  | Co-/Pre-requisites: CHEM 312B, 314B |
| BIOL/SBIO XXX | Biology Elective | 4 |  |  |  | Pre-requisite: Permission of the department. |
| SHIS/HIST XXX | History Elective | 3 |  |  |  |  |
| HLTH/PHED | Health/Physical Ed Elective | 2 |  |  |  |  |
| **TOTAL SEMESTER HOURS** | | **16** |  |  |  |  |
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| **2nd Semester** | **Course** | **Course Title** | **Credits** | **Semester Taken** | **Grade Earned** | **Transfer Institution** | **Course Notes** |
| CHEM 450B | Instrumental Analysis (Lecture/Lab)**#** | 4 |  |  |  | Pre-requisites: CHEM 315B |
| CHEM 423B | Chemical Research | 2 |  |  |  | Prerequisites: CHEM 231B, CHEM 315B |
| CHEM XXX | Chemistry Elective^ | 3 |  |  |  | ^May not be chosen from 100 or 200 level |
| CHEM 455B | Microcomputers in Chemistry§ | **3/4**§ |  |  |  |  |
|  | Social Science Elective**‡** | 3 |  |  |  | SPOL 201B,211B, SSOC 201B, GEOG 210B, 221B; SECO 211B  **‡**SECO 211B/ECON 2030 LSU req for Chem/ChE |
| **TOTAL SEMESTER HOURS** | | **15/16** |  |  |  |

**Other Graduation Requirements:** Writing Proficiency Exam (WPE) taken in ENGL 111 unless transferred ENGL 111, then WPE must be scheduled. 3 Credit Hours of African American Experience; Students must complete 60 clock hours of community service via the Service Learning (SVLR) dept. Students must pass Departmental Comprehensive.

†Not required for Chem/ChE majors. Chem/ChE majors must take ME 2733 (LSU). §LSU ChE computer course (CHE 2176) accepted for Chem/ChE majors

**#**Chemistry Pre-Med majors do not take these courses. Take instead Comparative Anatomy (SBIO 233B) and an additional SBIO elective (4 hours).

**Students are required to earn a grade of “C” or better in all Major, MATH, PHYS and BIOL courses. Student cumulative GPA must be a 2.0 or higher.**

**STUDENTS ARE REQUIRED TO MEET WITH THEIR ADVISOR PRIOR TO REGISTRATION. SHOULD A STUDENT FAIL TO SECURE PROPER ADVISEMENT, THE UNIVERSITY WILL NOT BE HELD RESPONSIBLE.**

**CSE 4/2022**