

CHEMISTRY - GENERAL CHEMISTRY WITH ACS CERTIFICATION (BACHELOR OF SCIENCE)

The concentration in General Chemistry with the American Chemical Society Certification (ACS) is for students seeking careers as chemists or seeking admission to graduate programs in chemistry. This program is designed for the student who intends to become a professional chemist. The requirements for the Bachelor of Science degree in General Chemistry with ACS certification are:

| Course | Title | Credits |
|---|-------|-----------|
| Jax MIX General Education Curriculum | | 41 |

| Course | Title | Credits |
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| Chemistry Requirements | | |

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|-----------------|--|---|
| CY 105 & CY 107 | General Chemistry I and General Chemistry Laboratory I | 4 |
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| CY 106 & CY 108 | General Chemistry II and General Chemistry Laboratory II | 4 |
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| CY 231 | Organic Chemistry I | 4 |
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| CY 232 | Organic Chemistry II | 4 |
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| CY 341 | Physical Chemistry I (WI) | 4 |
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| CY 362 | Biochemistry I (WI) | 4 |
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| General Chemistry Concentration | | |
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| CY 321 | Quantitative Analysis | 4 |
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| CY 342 | Physical Chemistry II | 4 |
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| CY 411 | Intermediate Inorganic Chemistry | 4 |
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| CY 421 | Instrumental Analysis | 4 |
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| CY 497 | Chemistry Research | 1 |
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| Select a minimum of 4 hours of CY electives | | 4 |
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| CY 363 | Biochemistry II | |
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| CY 413 | Pharmacology | |
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| CY 414 | Medical Biochemistry | |
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| CY 416 | Forensic Chemistry | |
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| CY 417 | Macro-Molecular Modeling | |
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| CY 418 | Enzymology | |
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| CY 419 | Advanced Materials and Technology | |
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| CY 435 | Advanced Topics in Chemistry | |
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| CY 450 | Neurochemistry | |
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| CY 490 | Internship | |
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| Support Courses | | |
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| MS 125 | Calculus I | 4 |
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| MS 126 | Calculus II | 4 |
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| PHS 221 | Physics for Scientists and Engineers I w/Lab | 4 |
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| PHS 222 | Physics for Scientists and Engineers II w/Lab | 4 |
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|--------------------|--|-----------|
| Total Hours | | 61 |
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jax-mix-requirements/) and Alabama Transfers equivalents (<https://catalog.jsu.edu/undergraduate/alabama-transfers-equivalents/>) can be found in their respective section of the catalog.

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| Freshman | | |
| Fall | | |
| Jax MIX Communication: EH Composition Sequence | | 3 |
| CY 105 & CY 107 | General Chemistry I and General Chemistry Laboratory I (Jax MIX Inquiry) | 4 |
| MS 125 | Calculus I (Jax MIX Communication) | 4 |
| SSC 101 | First Year Experience | 0 |
| Elective | | 3 |
| Hours | | 14 |

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| Spring | | |
| Jax MIX Communication: EH Composition Sequence | | 3 |
| CY 106 & CY 108 | General Chemistry II and General Chemistry Laboratory II (Jax MIX Inquiry) | 4 |
| Jax MIX Experience: Social/Behavioral Science | | 3 |
| MS 126 | Calculus II | 4 |
| Elective | | 3 |
| Hours | | 17 |

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| Sophomore | | |
| Fall | | |
| Jax MIX Experience: History ¹ | | 3 |
| PHS 221 | Physics for Scientists and Engineers I w/Lab | 4 |
| CY 231 | Organic Chemistry I | 4 |
| Elective | | 4 |
| Hours | | 15 |

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| Spring | | |
| Jax MIX Expression: Literature ¹ | | 3 |
| PHS 222 | Physics for Scientists and Engineers II w/Lab | 4 |
| CY 232 | Organic Chemistry II | 4 |
| Elective | | 6 |
| Hours | | 17 |

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| Junior | | |
| Fall | | |
| EH 141 | Speech (Jax MIX Communication) | 3 |
| Jax MIX Expression (Literature if sequence) ¹ | | 3 |
| Jax MIX Experience: Social/Behavioral Science | | 3 |
| CY 362 | Biochemistry I (WI) | 4 |
| CY 497 | Chemistry Research | 1 |
| Hours | | 14 |

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| Spring | | |
| Jax MIX Experience (History if sequence) ¹ | | 3 |
| CY 321 | Quantitative Analysis | 4 |
| CY 411 | Intermediate Inorganic Chemistry | 4 |
| 300+ Elective | | 4 |
| Hours | | 15 |

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|-------------------------------|---------------------------|-----------|
| Senior | | |
| Fall | | |
| Jax MIX Expression: Fine Arts | | 3 |
| CY 341 | Physical Chemistry I (WI) | 4 |
| 300+ Elective | | 3 |
| Elective | | 4 |
| Hours | | 14 |

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| Spring | | |
| CY 342 | Physical Chemistry II | 4 |
| CY 421 | Instrumental Analysis | 4 |
| CY 300+ Elective | | 4 |

In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations. **More information about Jax MIX requirements** (<https://catalog.jsu.edu/undergraduate/>

2 Chemistry - General Chemistry with ACS Certification (Bachelor of Science)

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| Elective | 2 |
| Hours | 14 |
| Total Hours | 120 |

¹ A sequence in either literature or history is required with a minimum of three credit hours in both history and literature.