## Grinnell College Education Department

Secondary Teaching Licensure Program Advising Guide
\#151 5-12 Biological Science - Updated February 2021

This worksheet will assist you and your advisor in planning your courses.

## EDUCATION DEPARTMENT REQUIRED COURSES FOR LICENSURE

| Introductory Required Courses |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | EDU 101 | Principles of Education in a Pluralistic Society | 4 credits |  |
|  | EDU 102 | Participant Observation in Schools | 2 credits |  |


| Four credits from the following: |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
|  | EDU 210 | Historical Perspectives on U.S. Education | 4 credits |  |
|  | EDU 211 | The Politics of Educational Assessment | 4 credits |  |
|  | EDU 213 | Cultural Politics of Language Teaching | 4 credits |  |
|  | EDU 214 | Critical Literacy | 4 credits |  |
|  | EDU 215 | Reading and Writing Youth and Youth Cultures | 4 credits |  |
|  | EDU 217 | Comparative and International Education | 4 credits |  |
|  | EDU 218 | Place Based Education | 4 credits |  |
|  | EDU 295 | Education Special Topic | $2-4$ credits |  |


| Education Department Upper-Level Required Courses |  |  |  |
| :--- | :--- | :--- | :--- |
|  | EDU 221 | Educational Psychology | 4 credits |
|  | EDU 250 | Differentiating Instruction for All Students | 4 credits |
|  | EDU 340 | Research and Methods in Teaching the Young <br> Adult | 4 credits |
|  | EDU 345 | Research and Methods in Teaching and <br> Learning in the Sciences | 2 credits |


| Student Teaching Semester Courses |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | EDU 460 | Seminar in Teaching the Young Adult | $2-4$ credits |  |
|  | EDU 469 | Student Teaching Internship in the Disciplines | $4-8$ credits |  |

## K-12 FIELD EXPERIENCE

80 hours of K-12 based field experience are also required. 10 of those hours must be completed in an ethno-racially, linguistically, and/or culturally diverse placement.

## GENERAL EDUCATION REQUIREMENTS

Students must complete coursework in each of the following content areas. AP credit, courses taken $\mathrm{S} / \mathrm{D} / \mathrm{F}$, and courses taken at other institutions can fulfill these requirements.

|  | American History or Government |
| :--- | :--- |
|  | Humanities |
|  | Mathematics |
|  | Biological Science |
|  | Physical Science |
|  | Demonstrated Proficiency in Writing |

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Special topics courses (295, 395), OCS coursework, independent, directed and mentored advanced projects (299, 399, 499), and other classes with relevant content to the endorsement area may serve as substitutions if those courses are reviewed and granted permission by the appropriate education department faculty member. Permission to substitute courses must be granted in writing and recorded in the student's electronic folder.

## BIOLOGICAL SCIENCE ENDORSEMENT REQUIREMENTS

Students may choose among two options for completing their content-area requirements for their Biological Science endorsement at Grinnell College.

Option 1- Total Credit Hours-24
Completion of 24 semester hours in Biological Science to include the following courses:

| Institutional Requirements |  |  |  |
| :--- | :--- | :--- | :--- |
|  | BIO 150 | Introduction to Biological Inquiry | 4 credits |
|  | BIO 251 | Molecules, Cells and Organisms | 4 credits |
|  | BIO 252 | Organisms, Evolution and Ecology | 4 credits |


| Two electives in Biology at the 200-level or above- 8 credits |  |  |  |
| :---: | :--- | :--- | :--- |
|  |  |  | 4 credits |
|  |  |  | 4 credits |


| One elective in Biology at the 300-level- 4 credits |  |  |
| :---: | :--- | :--- |
|  |  | 4 credits |

## Option 2- Total Credit Hours-30

Completion of thirty semester hours in the broad area of Sciences (Mathematics, Biological Science, Chemistry, Physics) to include fifteen hours semester hours in Biological Science:

| Institutional Requirements- 12 credits |  |  |  |
| :--- | :--- | :--- | :--- |
|  | BIO 150 | Introduction to Biological Inquiry | 4 credits |
|  | BIO 251 | Molecules, Cells and Organisms | 4 credits |
|  | BIO 252 | Organisms, Evolution and Ecology | 4 credits |



## Electives in the Broad Area of Science- 14 credits

|  |  |  | 4 credits |
| :--- | :--- | :--- | :--- |
|  |  |  | 4 credits |
|  |  |  | 4 credits |
|  |  |  | $2-4$ credits |

