2024-2025

# BS.BIOL DASC: Bachelor of Science in Biology – Data Science Concentration with Data Science Minor

Sample 2-Year Educational Plan

The example plan below assumes that you enter Seattle University with junior standing (90 credits or more) and have successfully completed the following:

- A transferable associate degree
  - [Students with Associate of Science–Transfer (AS-T) degrees or who lack an associate degree may require one or more additional Core courses depending on courses transferred; see next page for Core Curriculum.]
- 1) One year of Introductory Biology with labs, 2) one year of General Chemistry with labs, 3) one course of calculus, 4) one course of statistics, and 5) a course equivalent to CPSC 1220.

[Math may be Statistics or Calculus I, or Calculus for Life Sciences or Business - courses equivalent to SU's MATH 1130, 1210, 1230, 1334, or 2310.]

Visit the Transfer Equivalency Guide on the Transfer Tools page (<a href="https://www.seattleu.edu/registrar/transfer-tools/">https://www.seattleu.edu/registrar/transfer-tools/</a>) for more information on how your credits may transfer to SU. Courses from your college/university that are not in the Guide may have equivalencies in SU's course catalog (<a href="https://catalog.seattleu.edu/">https://catalog.seattleu.edu/</a>). All courses on your incoming transcript will be evaluated for equivalencies after admission to SU.

This is a sample plan and not the only way to complete the requirements. Numbers of credits are in parentheses.

#### Year 1

| Fall                                    | Winter  | Spring  | Steps for Success   |
|---|---|---|---|
| BIOL 2700 Genetics* (5)                 | BIOL 2730 Bioinformatics* <i>(BIOL Elective for Data Sci Minor)</i> (5) | BIOL 3770 Bioinformatics Project<br>Lab* <i>(example BIOL Elective)</i> (5) | □ Revise course plan in MySeattleU and consult your professional advisor.                                   |
| **BIOL 1400 1st-Yr Experience (1)       | BIOL Elective* (5)  |   | □ Talk to biology faculty mentors.  |
| PHYS 1050 + 1051 Mechanics + Lab* (4+1) | PHYS 1060 + 1061 Waves, Sound,<br>Elect., & Mag. + Lab* (4+1)           | PHYS 1070 + 1071 Thermo, Optics, &<br>Mod Phys + Lab* (4+1)                 | □ Participate in campus activities and local organizations.   |
| UCOR Module II (5)                      |   | UCOR Module II (5)  | □ Investigate career options, attend seminars, and think about post-SU educational programs or internships. |

<sup>\*</sup>Some courses have prerequisites. \*\* Transfer students may choose to take BIOL 1400 (1 credit) in Fall or a BIOL elective in a future term.

#### Year 2

| Fall  | Winter   | Spring   | Steps for Success  |
|---|--|--|--|
| BIOL 4991 Senior Synthesis I* (2)   | BIOL 4992 Senior Synthesis II (2)                                      | BIOL 4993+4996 Senior Synthesis III<br>and Seminar* (1+1)                    | ☐ Finalize plan for graduation, and review with your advisor.            |
| BIOL 2750+2751 Biotechnology +<br>Lab* <i>(example BIOL Elective)</i> (4+2) | BIOL 3850 Plant Physiology* (example BIOL Elective) (5)                | BIOL Elective* (5)   | □ Apply to graduate on MySeattleU.                                       |
| BIOL 2600 Ecology* (5)  | CPSC 2300 Intro to Databases*<br>(Phys Sci for Data Sci Minor) (5)     | DATA 3320 Methodology of Data<br>Sci* <i>(Gen Elective for DS Minor)</i> (5) | ☐ Attend career events & consider graduate/professional school options.  |
| UCOR Module II (5)  | DATA 3310 Data Visualization* (5)<br>(Gen Elective for Data Sci Minor) | UCOR Module III (5)  | □ Apply for jobs, internships, and/or graduate or professional programs. |

## **University Core Requirements**

Core Curriculum requirements are listed in the sample plan as UCOR courses from the Modules shown below. Some courses (\*) have been fulfilled by your Associate Degree coursework and requirements in your major. See <a href="My.SeattleU.edu">My.SeattleU.edu</a> for prerequisites and <a href="https://www.seattleu.edu/core">www.seattleu.edu/core</a> for course descriptions.

#### Module I

UCOR 1100 Academic Writing Seminar\*
UCOR 1200 Quantitative Thinking\*
UCOR 1300 Creative Expression & Interpretation\*
UCOR 1400 Inquiry Seminar in the Humanities\*
UCOR 1600 Inquiry Seminar in the Social Sciences\*
UCOR 1800 Inquiry Seminar in the Natural Sciences\*

#### **Module II**

UCOR 2100 Theological Explorations
UCOR 2500 Philosophy of the Human Person
UCOR 2900 or 2910 or 2920 Ethical Reasoning –
General, Business, or Health Care

### **Module III**

UCOR 3100 Religion in a Global Context\*
UCOR 3400 Humanities and Global Challenges -ORUCOR 3600 Social Sciences and Global Challenges
UCOR 3800 Natural Sciences and Global Challenges\*

## **Important Major Information: BS.BIOL + DASC Minor**

- Credits in Major: 114
- Minimum Major GPA: 2.0 (some scholarships may require higher)
- See <u>My.SeattleU.edu</u> for elective options and <u>the catalog</u> for Data Science Minor requirements, which include programming, statistics, and data science
- Students must earn C in prerequisite biology courses and C- in other prerequisite science and math courses
- At least 25 credits of BIOL 3000- or 4000-level courses are required
- Questions? Visit Sinegal (SINE) 401 or email biology@seattleu.edu

### **Resources for Success**

- Map out your own plan through My.SeattleU.edu
- Meet with a Career Coach from the <u>Career Engagement Center</u>
- Sign up for academic support with <u>Learning Assistance Programs</u>
- Explore career options at the "What Can I Do with This Major" page
- Learn more about academic advising on the <u>Advising Services page</u>

#### **Notes**

- Refer to Catalog and 2-Year Course Offerings for more BIOL electives and planning
- Plan assumes placement in MATH 1230/1334 by ALEKS exam or college credit, & if MATH 1028 (Trig) has not been fulfilled, it must be a MATH 1230/1334 corequisite
- BIOL electives (BIOL≥2210) must include the following and one plant course:
  - Choose one: BIOL 2750+2751 Biotechnology+Lab, 3150 Virology, 4700
     Molecular Genetics, or 4750+4751 Cell Biology+Lab
  - Choose one: BIOL 2350 Invertebrate Zoology & Biodiversity Science,
     Plant Systematics, 3500 Evolution, or 3650 Marine Biology
  - Choose one: BIOL 3250 Comparative Vertebrate Anatomy, 3300 Developmental Biology, 3850 Plant Physiology, or 3880 Animal Physiology
- Discuss your academic and future plans with your Biology Faculty Mentor for discipline-specific guidance and suggestions.



COLLEGE OF SCIENCE AND ENGINEERING

Use MySeattleU Student Planning to plan your courses and work closely with your academic advisor on your educational plan. You are responsible for knowing information and tracking changes.

Contact your Advising Center for support.

Science & Engineering
Advising

se-adv@seattleu.edu

Seattle U Advising Services
<a href="http://www.seattleu.edu/advising">http://www.seattleu.edu/advising</a>