

# Science Applications (SCIA)

## College of Indigenous Studies

Community Based Science (<https://uaf.edu/rural/academics/departments/>)

[907-474-2748](tel:907-474-2748)

### SCIA F101L Natural Science Lab Course

1 Credit

Offered As Demand Warrants

Provides laboratory experience emphasizing contemporary biological topics for transfer students who are not science majors and who have completed a natural science course with no laboratory section at another institution. For non-science majors. Special lab fees apply.

**Prerequisites:** A university-level natural science course.

**Special Notes:** Students will complete two labs on applying the scientific method and 10 labs in any of the following study areas in natural science, physics, chemistry, biology or geoscience.

**Attributes:** UAF GER Natural Science Req

**Lecture + Lab + Other:** 0 + 6 + 0

**Grading System:** Letter Grades with option of Plus/Minus

### SCIA F105 Field Biology

2 Credits

Offered As Demand Warrants

Students will learn some of the techniques that are employed by wildlife biologists to study plants, fish and animals in the field and establish use of the scientific method through a student research project.

**Lecture + Lab + Other:** 20 + 20 + 0

**Grading System:** Letter Grades with option of Plus/Minus

### SCIA F115 Introduction to Undergraduate Research

2 Credits

Offered Summer

This course introduces research methods with an emphasis on biosciences. Topics covered include searching and evaluating scientific literature, identifying a research question, selecting a study approach, scientific method and experimental design, data collection and analysis, research ethics, scientific writing and plagiarism, effective presentation methods, peer review process and grant writing.

**Lecture + Lab + Other:** 2 + 0 + 0

**Grading System:** Letter Grades with option of Plus/Minus

### SCIA F125 Undergraduate Research Experience (n)

2 Credits

Offered Summer

Required course for RAHI research track students. This course will facilitate mentored research experience for RAHI research track students. Students will accomplish a research project under the guidance of a UAF faculty. Course will conclude with a research report and presentation on research activities.

**Lecture + Lab + Other:** 2 + 0 + 0

**Grading System:** Letter Grades with option of Plus/Minus

### SCIA F150 Subarctic Horticulture

1 Credit

Offered As Demand Warrants

Soils, plant propagation, disease and insect control, variety selection, fertilization, greenhouse construction and care and gardening techniques. Emphasis on development and care of greenhouses and gardens in the Nome area.

**Lecture + Lab + Other:** 0 + 3 + 0

**Grading System:** Letter Grades with option of Plus/Minus

### SCIA F150P Subarctic Horticulture

1 Credit

Offered As Demand Warrants

Soils, plant propagation, disease and insect control, variety selection, fertilization, greenhouse construction and care and gardening techniques. Emphasis on development and care of greenhouses and gardens in the Nome area.

**Lecture + Lab + Other:** 1 + 0 + 0

**Grading System:** Pass/Fail Grades

### SCIA F157 Alaska Plants (n)

1 Credit

Offered As Demand Warrants

Introduction to the topics of plant taxonomy and identification with specific reference to common Alaskan plants and vegetation types.

**Lecture + Lab + Other:** 1 + 0 + 0

**Grading System:** Letter Grades with option of Plus/Minus

### SCIA F160 Science of Addiction

3 Credits

Offered Fall

This course describes chemical substances of abuse and the neurobiological mechanism of addiction. Functioning of the nervous system, actions of addictive and intoxicating substances, ways of avoidance and treatment of addiction are discussed. Information-only course should not be used for treatment or counseling in any form. Suitable for non-science majors.

**Recommended:** One high school or college-level science course.

**Lecture + Lab + Other:** 3 + 0 + 0

**Grading System:** Letter Grades with option of Plus/Minus

### SCIA F161 Birds of Alaska

1 Credit

Offered As Demand Warrants

Biology of birds including behavior, anatomy, physiology, ecology, systematics and field identification.

**Lecture + Lab + Other:** 1 + 0 + 0

**Grading System:** Letter Grades with option of Plus/Minus

### SCIA F162 Mammals of Alaska (n)

1 Credit

Offered As Demand Warrants

Introduction to the mammals of Alaska and their importance to the local ecology and economy from a scientific research standpoint. Emphasis on important and/or common species for study of classification, habitat, life cycle and economic importance.

**Prerequisites:** Background or interest in general science or natural history.

**Lecture + Lab + Other:** 1 + 0 + 0

**Grading System:** Letter Grades with option of Plus/Minus