

# FOUNDATIONS IN RESEARCH SKILLS FOR COMMUNITY COLLEGE STUDENTS - MICRO-CREDENTIAL

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The Foundations in Research Skills for Community College Students – RECCS Experience micro-credential verifies the specific research skills learners accomplish during the RECCS summer research experience.

The Research Experience for Community College Students (RECCS) is a paid summer research internship program. RECCS aims to give community college students an authentic research experience in the environmental sciences at CU Boulder. The program allows students to explore environmental or geosciences and gain the confidence to transition to a four-year program in the STEM (Science Technology Engineering Math) disciplines. RECCS participants conduct field- or lab-based independent research over a nine-week period in the summer while working with a team of scientists. Students are matched with mentors and work in labs alongside graduate students and post-docs. Students learn basic research, writing, and communication skills. They present their research at a local student science symposium.

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## Eligibility

All Colorado community college students are eligible to apply for the RECCS program.

## Delivery Mode

In-person

## Credit Status

Noncredit

## Academic Level

Undergraduate

## Time to Completion

300 hours

## Requirements

Learners are required to complete a research project. They will:

- Develop a research question
- Develop a research methodology
- Collect data
- Interpret data (includes identifying assumptions, limitations, etc.)
- Conduct a literature review
- Keep a detailed lab notebook.
- Conduct observations in the lab or field.
- Use statistics to analyze data.
- Calibrate instruments needed for measurement.
- Read and understand journal articles.
- Conduct database or internet searches.
- Manage their time effectively.
- Figure out the next step in a research project.

- Solve a problem
- Identify limitations of research methods and designs
- Understand the theory and concepts guiding their research project

## Criteria

- Complete approximately 275 hours of research.
- Complete a research skills self-assessment at the end of the program.
- Turn in skills demonstration checklist signed by the research mentor.
- Demonstrate completion by producing a scientific poster describing research project.

## Skills

- Analyzing data
- Collaboration and teamwork
- Creativity
- Critical thinking
- Critiquing
- Data visualizations
- Defending an argument
- Developing a methodology
- Drawing conclusions
- Feedback integration
- Identifying a research question
- Independence
- Interpreting data
- Literature interpretation
- Organization
- Persistence
- Problem solving