

SCIENCE & ENVIRONMENT



A BEGINNING GUIDE TO
CAREER EDUCATION

TABLE OF CONTENTS

Preparing for life after Earlham can be overwhelming. The Center for Career Education is here to help you take those first steps and beyond in your journey to a meaningful career.



- 03** CAREER EDUCATION
- 04** CV GUIDE
- 08** RESUME GUIDE
- 11** ACTION VERBS
- 12** SKILLS
- 16** COVER LETTER GUIDE
- 18** NEXT STEPS

CAREER EDUCATION



Our Mission:

As a part of the Epic Journey, the Center for Career Education empowers students to imagine, design, & pursue a purposeful life and meaningful career.

How We Can Help:

- Career Exploration
- Application Creation & Review
 - CV/Resume
 - Cover Letter
 - Personal Statement
- Interview Preparation
- Epic Advantage
- Job & Internship Search Strategies

CURRICULUM VITAE (CV)

While a resume is a concise and curated snapshot of your professional experience and qualifications, a Curriculum Vitae (CV) is a more comprehensive account of your background, with an emphasis on your academic accomplishments. CVs are often required for graduate school applications and academically-oriented research positions. A great CV should be tailored to the opportunities for which you are applying, and clearly connect your interests, experiences, and skills to the requirements of the graduate program or professional opening you are pursuing.

CV SECTION BRAINSTORM

EDUCATION

RELEVANT COURSEWORK

RESEARCH INTERESTS

RESEARCH EXPERIENCE

PROFESSIONAL EXPERIENCE

SKILLS

PRESENTATIONS & PUBLICATIONS

HONORS & AWARDS

PROFESSIONAL ORGANIZATIONS

CERTIFICATIONS

LANGUAGES

PROGRAMMING LANGUAGES

VOLUNTEER EXPERIENCE



ACTION STEP:

Take time to reflect and make a list of all the various experiences, knowledge, and skills you have from the CV categories listed above. After you have finished, work on organizing and communicating all your items clearly and efficiently, integrating the guidance provided in the CV guide on the next page.

FIRST & LAST NAME

(123) 456 -7890 | Richmond, IN | email@gmail.com

EDUCATION

Earlham College | Bachelor of Arts in Degree Title

Expected, Month, Year

Minor:

Richmond, IN

GPA: 0.0

Thesis: *Insert Thesis Title*

New Zealand Program | Off-Campus Study

Month, Year - Month, Year

Whanganui, New Zealand

Emphasis: Environmental sustainability; multicultural competence; outdoor education

RELEVANT COURSEWORK

Environment, Science & Sustainability

Geographic Information Systems

Cell Physiology

Field Botany

Environmental Ethics

Biological Diversity

Restoration Ecology

Organic Chemistry I

Research Methods

Evolutionary Biology

Invasive Species Control

Biological Statistics

Population & Community Ecology

Conservation Biology

Earth Materials

RESEARCH INTERESTS

- Provide a brief list of your research interests or specializations

RESEARCH EXPERIENCE

Experience Name

Month, Year – Month, Year

Research Project Title

Organization | City, State

- Provide a brief (<100 words) paragraph description of each research experience. Include specific techniques used in data collection; methods of analytical or statistical analysis; experience with specific technology or software programs (e.g. R, SPSS, GIS); and the principal investigator (PI) or collaborators for the project. Ongoing research is written in present tense and completed research is written in past tense.

Undergraduate Thesis

Month, Year – Month, Year

Analyzing Provisional Behaviors of Grassland Birds

Earlham College | Richmond, IN

- This study evaluated the prevalence of provisional behaviors in two grassland bird species to describe common behaviors in nesting care patterns; compare the prevalence of provisional behaviors between species; and determine the possible functions of species-specific nesting care behaviors. One-hundred and fifty video sessions were conducted, observed, and coded to assess provisional behaviors across the two species. Generalized linear mixed models were used to test hypotheses and interpret results.

Ecology and Society Lab, Dr. Jaime Coon
Using Adaptive Management to Restore Grasslands
Earlham College | Richmond, IN

Month, Year – Month, Year

- This longitudinal landscape-scale experiment employed an adaptive management framework to study the control of common but highly invasive cool-season grass (tall fescue) by comparing herbicide, herbicide/native seeding, and control treatments across a four-year period at seven cattle grazing sites. Individual responsibilities included observing, quantifying, and documenting the presence of tall fescue across seven sites during the fourth year of the experiment, running a linear mixed model analysis using the 'lme4' R package, and reporting results.

PROFESSIONAL EXPERIENCE

Position Title

Month, Year – Month, Year

Organization | City, State

- Begin each task description with an action verb (e.g. "analyzed," "designed," "collaborated," "assessed," etc.)
- Describe your experience by focusing on specific achievements or outcomes, skills, technology, equipment, protocols, and techniques.
- Quantify aspects of your descriptions when appropriate to highlight accomplishments and provide context (e.g. ..."Increased participant recruitment by 25%," "Observed and recorded the patterns of invasive species daily for 60 days..")
- Format current experience in present tense and previous experience in past tense

STEM Camp Counselor

Month, Year – Month, Year

Popper Summer Camp | Colorado Springs, CO

- Designed and delivered weekly science education workshops for 75+ middle school students attending an eight-week summer camp
- Facilitated daily science activities that introduced students to the experimental method and principles of the scientific process
- Created, promoted, and led *Hoos Out There*, a two-night camping trip that trained 10+ students to identify different species of owls and nocturnal animals
- Proactively responded to student concerns to ensure a positive experience

SKILLS

Software Programs

Specific Research Methods

Statistical Analysis Programs

Relevant Lab Equipment Training

Programming Languages

Languages

PRESENTATIONS & PUBLICATIONS

Presentations

Authors (bold your name). *Presentation Title*. Poster presented at: Conference Name; Month, Year; City, State

Smith, J. M., **Last, F. M.**, & Doe, A. K. *What Works: Community Conservation Strategies in Developing Economic Areas*. Poster presented at: The Ecological Society of America Conference; August, 2021; Augustin, TX

Last, F.M. *Invasive Species Control in a Rural Greenway*. Poster Presented at: Epic Expo; April, 2020; Richmond, IN

Publications

Authors (bold your name). (Date). Article Title. Journal Name, volume, page range. Doi link.

Roberts, J. M., Hall, L. B., Morgan, Y. C., & **Last, F.M.** (2021). Impacts of Wind Energy on Biodiversity. *Journal of Sustainability & Ecology*, 9, 55 – 80. <https://doi.org/10.1016/jes.2021.09.001>

HONORS AND AWARDS

Award Name, *Awarding Organization* | Year

- Brief description summarizing and highlighting the purpose and scope of the achievement

Outstanding Student Researcher, *Earlham College* | 2022

- Awarded to one graduating senior in the Division of Natural Science who exhibits a commitment to excellence in research and scholarship

LEADERSHIP EXPERIENCE & PROFESSIONAL ORGANIZATIONS

- Name of Organization, *position* | Year – Year
- Outdoor Club, *President* | 2020 – 2022
- American Institute for Biological Science, *Student Member* | 2019 – 2022

CERTIFICATIONS (*optional*)

- Name of Certification, *Accrediting Organization* | Month, Year
- Human Subjects Research Certification, *Collaborative Institutional Training Initiative (CITI)* | June, 2020
- CPR Certified (229838), *American Red Cross* | May, 2019 – exp. May, 2021

LANGUAGES (*optional*)

- List Language- *Experience Level (Beginner, Conversational, Fluent)*
- Spanish- *Fluent*
- Mandarin- *Beginner*

PROGRAMMING LANGUAGE (*optional*)

Languages

HTML

Python

C++

Experience Level

Advanced

Intermediate

Beginner

RESUME

The goal of a resume is to secure an interview by showcasing the value you can add to a specific employer or position. Carefully read the job description that interests you, and craft a resume that connects the organization's needs to your knowledge, experience and skillset. Prioritize elements of your background that directly apply to the job description and the position's desired qualifications. Think of your resume as a living document that is updated and edited as your career interests and goals evolve.

IMPACT ACTIVITY:

- Find a job posting that interests you.
- Carefully read the job description.
- Highlight specific terms, skills, and/or qualifications listed in the description
- Identify your experiences, skills, knowledge and qualifications that align with the employer's needs.
- Write about your previous experiences, skills and accomplishments in a way that integrates the highlighted terms from the job description. Make it clear to the employer that you have the knowledge, experience, skills and qualifications they want.

ACTION STEP:

Practice writing task descriptions that connect your achievements, skills and previous experience(s) with a specific job posting. Try to quantify your experience when appropriate to emphasize the value you could bring to an employer. Reference the resume guide on the next page for help.

FIRST & LAST NAME

(123) 456 - 7890 | Richmond, IN | email@gmail.com

EDUCATION

Earlham College | Bachelor of Arts in Degree Title

Expected, Month, Year

Minor:

Richmond, IN

GPA: 0.0

RELEVANT EXPERIENCE

Position Title

Month, Year – Month, Year

Organization | City, State

- Begin each task description with an action verb (e.g. "analyzed," "designed," "collaborated," "assessed," etc.)
- Describe your experience by focusing on specific achievements or outcomes, skills, technology, equipment, protocols, and techniques
- Quantify aspects of your descriptions when appropriate to highlight accomplishments and provide context (e.g. ..."Increased participant recruitment by 25%," "Observed and recorded the patterns of invasive species daily for 60 days..")
- Format current experience in present tense and previous experience in past tense

STEM Camp Counselor

Month, Year – Month, Year

Popper Summer Camp | Colorado Springs, CO

- Designed and delivered weekly science education workshops for 75+ middle school students attending an eight-week summer camp
- Facilitated daily science activities that introduced students to the experimental method and principles of the scientific process
- Created, promoted and led *Hoos Out There*, a two-night camping trip that trained 10+ students to identify different species of owls and other nocturnal animals
- Proactively responded to student concerns to ensure a positive experience

Ecology and Society Research Lab, Dr. Jaime Coon

Month, Year – Month, Year

Using Adaptive Management to Restore Grasslands

Earlham College | Richmond, IN

- Assisted in fulfilling a longitudinal experiment that utilized an adaptive management framework to study the control of common but highly invasive cool-season grass
- Observed, quantified, and documented the presence of invasive species weekly across seven data collection sites for 12 months
- Conducted advanced statistical analyses using the 'lme4' R package
- Co-authored a manuscript for publication and presented results at a regional conference

SKILLS

Software Programs

Specific Research Methods

Statistical Analysis Programs

Relevant Lab Equipment Training

Programming Languages

Languages (*Beginner, Conversational, Fluent*)

Optional Resume Sections

RESEARCH EXPERIENCE

Experience Name

Month, Year – Month, Year

Research Project Title

Organization | City, State

- Provide 2 - 3 bullet points highlighting your activity for research experience.
- Include specific techniques used in data collection; methods of analytical or statistical analysis; experience with specific technology or software programs (e.g. R, SPSS, GIS).
- Ongoing research is written in present tense and completed research is written in past tense.

Undergraduate Thesis

Month, Year – Month, Year

Analyzing Provisional Behaviors of Grassland Birds

Earlham College | Richmond, IN

- Evaluated the prevalence of provisional behaviors in two grassland bird species
- Collected and coded 150 video sessions to assess provisional behaviors across species
- Cleaned and analyzed data by conducting a generalized linear mixed model analysis in R

HONORS AND AWARDS

Award Name, *Awarding Organization* | Year

- Brief description summarizing and highlighting the purpose and scope of the achievement

Outstanding Student Researcher, *Earlham College* | 2022

- Awarded to one graduating senior in the Division of Natural Science who exhibits a commitment to excellence in research and scholarship

LEADERSHIP EXPERIENCE

- Name of Organization, *position* | Year – Year
- Outdoor Club, *President* | 2020 – 2022

CERTIFICATIONS

- Name of Certification, *Accrediting Organization* | Month, Year
- Human Subjects Research Certification, *Collaborative Institutional Training Initiative (CITI)* | June, 2020

RELEVANT COURSEWORK

Environment, Science & Sustainability
Field Botany
Restoration Ecology
Evolutionary Biology
Population & Community Ecology

Geographic Information Systems
Environmental Ethics
Organic Chemistry
Invasive Species Control
Conservation Biology

Cell Physiology
Biological Diversity
Research Methods
Biological Statistics
Earth Materials

ACTION VERBS

Effectively communicating your previous experience and skillset is essential in developing impactful application materials. Selecting action verbs that accurately describe your experiences and skillset provides valuable context to employers. Action verbs not only tell employers what you have done, but how you have approached those tasks. The following is a list of action verbs commonly used in conducting scientific research.

REVIEW	METHODS		RESULTS	DISCUSSION
Assessed	Administered	Implanted	Analyzed	Clarified
Collected	Anesthetized	Inspected	Calculated	Communicated
Compared	Assessed	Investigated	Conducted	Compared
Compiled	Assisted	Maintained	Detected	Critiqued
Critiqued	Calculated	Mapped	Determined	Derived
Evaluated	Classified	Measured	Discovered	Determined
Examined	Cleaned Data	Modeled	Found	Disseminated
Explored	Coded	Observed	Performed	Generalized
Formulated	Collected	Prepared	Reported	Interpreted
Hypothesized	Compared	Programmed	Tested	Recommended
Identified	Controlled	Purified		Summarized
Interpreted	Converted	Qualified		
Investigated	Defined	Quantified		
Organized	Delivered	Rated		
Predicted	Designed	Recruited		
Researched	Detected	Sampled		
Reviewed	Diagnosed	Sterilized		
Studied	Engineered	Studied		
Summarized	Estimated	Surveyed		
Synthesized	Examined	Tracked		
	Experimented	Weighed		
	Extracted			

ACTION STEP:

Evaluate your research and/or scientific experience. What action verbs best characterize how you approached or completed these tasks? Be sure to use action verbs when creating the content for your resume.

SKILLS

TRANSFERABLE SKILLS:

Abilities that can be used across a variety of careers and industries

Whether you are running experiments in a lab, designing a prototype, writing code, recruiting participants, or communicating technical and complex ideas through writing, scientific activities equip you with a diverse set of transferable skills that can be used in a wide range of professional contexts. On the following pages is a list of common transferable skills and how someone in a scientific profession could use them:

TECHNICAL SKILLS:

Specialized abilities, knowledge or expertise that can be used to complete a specific task or use particular tools

Scientific disciplines and experiences provide you with a diverse set of technical skills that are in high demand across several industries (e.g. statistical analysis software programs, lab equipment, coding/programming languages etc.). On the following pages is a list of common categories and examples of technical skills:

ACTION STEP:

Review the list of descriptions and skills in the following pages. What transferable and technical skills have you developed from your academic, research or previous professional experience? How could you integrate and highlight these skills as you create application materials (Resume, CV and/or Cover Letter) and prepare for interviews?

EXAMPLES: TRANSFERABLE SKILLS

ANALYTICAL & CRITICAL THINKING



- Identify key publications, concepts, theories, definitions and connections between abstract ideas
- Evaluate the quality, methods, outcomes and relevance of previous research
- Synthesize and organize ideas intentionally and coherently to develop and communicate a clear perspective
- Exercise sound reasoning to evaluate ideas and create, select or adapt effective protocols
- Interpret results and determine practical applications
- Compare results to previous knowledge and suggest explanations for key differences or extraneous variables
- Engage ideas with a heightened sense of objectivity by considering limitations in methods, knowledge and generalizations

COMMUNICATION



- Clear and concise written communication by summarizing detailed information in your own words
- Organize ideas in a logical and coherent manner
- Present ideas, processes and results with clear and persuasive verbal and written communication to a wide variety of audiences
- Create tables, charts and graphs to easily present information and data

EQUITY AND INCLUSION



- Exhibit open-mindedness about alternative perspectives, interpretations and ways of thinking
- Listen to and integrate the ideas, opinions and feedback from a variety of perspectives
- Consider generalizations and limitations from an equity-based mindset
- Acknowledge and address any systems of oppression and/or privilege in your area of interest

EXAMPLES: TRANSFERABLE SKILLS

PROBLEM SOLVING



- Obtain and integrate previous knowledge, facts and data in the process of making evidence-based decisions or developing innovative solutions
- Proactively anticipate needs, predict problems and prioritize actions

TECHNOLOGY



- Quickly adapt to new or unfamiliar technologies
- Harness technology to improve efficiency and accuracy
- Integrate technology to approach problems creatively

CURIOSITY



- Commit to exploring and understanding the connectivity between complex concepts and relationships
- Continually pursue and develop a deeper sense of knowledge and training
- Engage new ideas with openness

TIME MANAGEMENT



- Effectively identify, prioritize and accomplish tasks
- Communicate a personal system or strategy to stay on task and meet deadlines
- Accurately evaluate the time and effort associated with a diverse set of tasks

ATTENTION TO DETAIL



- Ensure the communication of concepts and numbers is accurate, consistent and free of errors
- Identify patterns and inconsistencies in information
- Approach tasks in a comprehensive and thorough manner in order to produce high-quality work

LEADERSHIP



- Seek out and integrate diverse forms of feedback to improve results and performance
- Independently engage new concepts and ideas to discover novel possibilities or innovative solutions
- Plan, initiate, manage, complete and evaluate projects
- Approach tasks with confidence and address challenges with a positive attitude
- Proactively pursue a greater sense of responsibility

PROFESSIONALISM



- Exhibit a high level of dedication to producing quality work
- Contribute to a professional community by attending and presenting at conferences or publishing research
- Be present, prepared and dependable

TEAMWORK



- Build strong, positive working relationships with other researchers, lab members and principal investigators
- Collaborate with other professionals to achieve a common goal
- Exercise the ability to compromise and be adaptable
- Strive to identify and utilize the strengths of team members
- Effectively manage conflict and respect diverse personalities

EXAMPLES: TECHNICAL SKILLS

- Statistical Software
 - R, SPSS, GIS, SAS, Prism, MatLab, Excel
- Data Analysis
- Scientific Procedures/Equipment
- Research Design
- Programming
- Computer Languages (C++, Python, Java, etc.)
- Technical Writing



COVER LETTER

A cover letter serves as your introduction to the hiring manager or selection committee. Think of it like a handshake- in your cover letter, your objective is to introduce yourself and start to convince the reader that you are a good fit for this particular position. Use the following guide to inform the creation and formatting of your cover letter.

1. INTRODUCE YOURSELF

- The first paragraph of your cover letter should:
 - Answer the question: Who are you, and why are you applying for this position?
 - Include the title of the specific position for which you are applying.
 - Demonstrate your knowledge of the organization's mission, values or goals
 - A thesis statement- that clearly shows the employer why you are right for their organization, and this particular position.

2. CONNECT THE DOTS

- The body of your cover letter should:
 - Include a paragraph or two that explains how your experience, skills and/or goals match the organization's needs, values, mission or goals.
 - Exhibit one or two specific examples from your experience that connect to the job description.
 - Not restate information from your resume; instead, concentrate on making the case that you are a great candidate for this particular job.

3. SIGN OFF AND SHAPE IT UP

- In your final paragraph:
 - Restate your interests in learning more about this position, your excitement and your "thesis" statement from the first paragraph.
 - Ensure your cover letter is free of errors and typos, correctly formatted and no longer than one page.

ACTION STEP:

Take an inventory of your professional experiences and accomplishments. How could you present specific examples in your cover letter that highlight your value? Remember, focus on specific achievements, skills sets or projects that directly connect to the needs of the organization or job description.

FIRST & LAST NAME

(123) 456 - 7890 | Richmond, IN | email@gmail.com
Month, day, year (*you submitted cover letter*)

(Dr./Mr./Ms./Mx.) first & last name of person reviewing your application
Person's job title
Name of organization
Organization's address

Dear (Dr./Mr./Ms./Mx.) First Name Last Name:

It is best if you can start with a sentence that expresses your interest and enthusiasm for the organization and/or the position for which you are applying. Then mention some strengths or experiences you have that make you a great candidate for this position. If someone recommended you or suggested you apply for this position, and/or there are specific reasons why you are excited about this organization, do not be shy—state this. This opening paragraph is a perfect place to mention something that has impressed you about this organization (e.g., something you read on their website or in a recent news article). This shows that you have done your research.

The middle paragraph (or two) should focus on the skills and experiences you have that are most relevant to the job for which you are applying. (Hint: it is a good idea to use some of the words and phrases that appear in the job posting/position description.) Be specific—describe how you have applied your skills previously and what you accomplished/contributed in your previous experiences. Next, state how you look forward to using these skills and strengths to help this organization. Keep each paragraph between 4 and 8 lines to prevent the reader from becoming overwhelmed. Make sure not to repeat your resume—expand on your experiences and skills.

In your last paragraph, write about what you would like to happen next (i.e. an interview or opportunity to talk about this position further). Provide information for how you can be reached, whether it is by email, phone number, or both (include this information in this sentence). Unless the job posting specifically states not to, you can write that you plan to follow up in a week or two via phone or email. Thank them for their time and consideration. Make sure that your cover letter is no longer than a page.

Sincerely,

(include a digital signature)

Your name typed here

MEET YOUR CAREER COACH

COREY KUNDERT

SENIOR CAREER COACH | SCIENCE & ENVIRONMENT

LBC 111 | KUNDECO@EARLHAM.EDU

765-983-1283



Science isn't just about finding answers, but also asking good questions. I help students interested in careers related to science and the environment ask good questions about their interests and potential career paths, identify and communicate their unique strengths, find relevant internships and job postings and pursue a life after Earlham that they find meaningful.

In the Science and Environment Career Community, we're all about solving problems through scientific approaches. Whether you are interested in working in a laboratory, getting out into the field to observe the world, or working toward developing more sustainable systems, the Science and Environment Career Community will connect you with mentors, opportunities and industry-specific guidance to help you achieve your career goals.

ACTION STEP:

- Create an appointment with a career coach
- Plan out the rest of your four years
- Create a CV/Resume
- Find opportunities to put your skills to use on and off-campus