



# Procedures and Guidelines for Trainee Internships

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## Goals:

Internships provide trainees further opportunities to develop analytic, integrative, translational, collaborative, and/or bridging skills. More specifically internships can provide opportunities to:

- apply scientific knowledge to real-world problem-solving
- build an understanding of how scientific knowledge is used in decision-making
- integrate science into practice and policy
- hone communication skills through interactions with stakeholders and practitioners
- produce written documents for non-science audiences
- build analytic and computational skills
- gain skills and knowledge to improve outcomes from graduate research projects
- develop innovative solutions to food-energy-water challenges

Individual internships do not need to meet all of these goals.

## Topics and Internship Providers:

Individual internships will be tailored to each student's program of study and professional goals. Trainees can intern with government agencies, research labs, non-profits, private businesses, and more. Internships need to meet the needs of both the trainee and the host organization.

## Requirements:

Internships must be cross-sector (i.e., clearly combining at least two of the three water, energy, food sectors). Internships that are interdisciplinary in nature (i.e., at least partially outside the student's primary discipline) are also encouraged. Ph.D. trainees need to complete at least 120 hours of internship work with a single partner. M.S. trainees need to complete at least 80 hours of internship work with a single partner. Internships with international partners will also satisfy the international experience requirement for Ph.D. students. The internship should challenge the trainee.

## Timeline:

**M.S. trainees** should start talking with their advisors and with the UM BRIDGES Program Coordinator about potential internships in the fall of their first year. Trainees should contact potential host organizations by January of their first year. **Draft learning agreements, created in collaboration between the trainee and their advisor, should be submitted to the Program PC by March 15 of the trainee's first academic year. A finalized, signed learning agreement coordinated between the trainee, advisor, and internship host, should be submitted to the Program PC by April 15 of the trainee's first academic year. Internships should be completed by the end of the trainee's third semester.**

**Ph.D. trainees** should start talking with their advisors and with the UM BRIDGES Program Coordinator about potential internships during their first year. Trainees should contact potential host organizations by fall of their second year. **Draft learning agreements, created in collaboration between the trainee and their advisor, should be submitted to the Program PC by March 15 of the trainee's second academic year. A finalized, signed learning agreement coordinated between the trainee, advisor, and internship host, should be submitted to the Program PC by April 15 of the trainee's third academic year. Internships should be completed by the end of the trainee's third year.**

The UM BRIDGES Program Coordinator will work with trainees and their advisors to identify potential host organizations and with partners to develop internship projects as requested/necessary.

### **Learning Agreements:**

Trainees will work in collaboration with their advisor to develop a draft learning agreement. Eventually, the trainee will develop a final learning agreement in collaboration with their advisor, internship supervisor, and the UM BRIDGES Program Coordinator. Final learning agreements will be signed by all four parties. Learning agreements will contain the following:

- Names: name of the trainee and their primary advisor
- Organization: name, title, address, and email of the proposed internship host and organization
- Schedule and Location: dates and location when and where the internship will be completed
- Project Description and Goals: project description and project goals that clearly indicates INFEWS-relevant work
- Learning Objectives: specific learning objectives and justification of how these will challenge the trainee beyond existing skills and studies
- Workplan: a workplan that outlines expectations of the trainees and milestones, if necessary
- Communications: plans for communication before, during, and after the internship
- Intellectual Property: statement of to whom intellectual property arising from internship will belong
- Evaluation: plans for internship supervisors to provide written and oral evaluations and feedback to trainees
- Budget: if internship is not locally-based, a rough budget of costs associated with trainee's completion of internship and planned sources of funding
- Expectations that internship supervisors will complete UM BRIDGES online surveys

### **Example Internships:**

- A trainee focused on tribal water rights might intern with the Confederated Salish and Kootenai Tribes to assist with negotiations between water users as the tribe develops a management plan for the newly acquired Kerr Dam. Through this internship experience, the trainee would develop communication skills, conflict resolution skills, cultural competencies, and a deeper understanding of tribal water rights in action.
- A trainee focused on hydropower in the developing world might intern with the Ugyen Wangchuck Institute for Conservation and Environment in Bhutan to help with writing or revising proposals and policy development, as well as developing monitoring schemes related to the impacts of microhydro development on water use and accessibility, and on energy availability and the health impacts of switching from fuelwood to electrical cooking. Through this internship experience, the trainee would link science to policy and management, develop skills related to describing and monitoring for specific outcomes, and deepen proposal writing skills.

- A trainee studying economics of water use for various agricultural products might intern with a national laboratory to develop and analyze a database of crop price trends and water uses. Through the internship, the trainee would develop data management, mining, and analysis skills.
- A trainee focused on tradeoffs between energy production and livestock production on western rangelands might intern with the Montana Stockgrowers Association to develop a rancher education campaign focused on the opportunities and costs associated with energy development on private ranchlands, including information about impacts to rangeland productivity and farm income. Through this internship, the trainee would develop skills in translating scientific knowledge into information useful for agricultural producers.
- A trainee focused on interactions between tropical watershed restoration and food and energy production might intern with the Smithsonian Tropical Research Institute's Agua Salud project to help quantify the tradeoffs between timber and livestock production, water quality and delivery, and hydroelectric power generation in the Panama Canal Watershed. Through this internship, the trainee would apply analytical skills and translation skills to meet the needs of a local project.

### **Funding:**

Master's trainees may apply for up to \$1,750 and PhD trainees may apply for up to \$2,500 to support travel and costs related to their required internship. PhD trainees may request up to an additional \$3,500 in funds for an internationally-based internship. Eligible costs include airfare (or other means of travel such as rental car or mileage reimbursement), parking, daily transportation costs, lodging/housing, and per-diem. Awards will be competitive and may not be the full requested amount depending on number of applicants and funds available. Monies may not be used for wages or salaries. Applicants should allow 4 weeks for review and should submit *at least* 6 weeks prior to planned departure, longer for international travel. Please see the documents BRIDGES Procedure for Trainee Grants and Supplemental Funding.docx for more details.

### **Reporting:**

- During the internship, all trainees are required to post *at least* one photo and statement regarding their internship to their Twitter account, OR write a tweet and give to the Program Coordinator to tweet, with the following handles and hash tags: @WEFnexusUM #UMBRIDGES #INFEWS #UniversityofMontana.
- At the completion of the internship, all trainees will send the following report, via email, to both the Program Coordinator and the Program Assistant:
  - Trainee's name
  - Internship organization
  - Internship supervisor's name and email address
  - Total hours internship completed
  - An interesting title that sums up the internship
  - A 1-2 paragraph well-written summary of the internship, including what work was done, what was achieved, how the internship benefitted the organization, how the internship benefitted/stretched the trainee, one interesting fact about the internship/organization, and how the internship related to the nexus – this will be posted to the UM BRIDGES website
  - "Fun Facts" about the internship (something interesting)
  - One high quality photo, horizontally arranged, that reflects the internship (different than the one(s) already posted to social media)