

The background is a dark green chalkboard with various white chalk sketches. On the left, there is a large drawing of a microscope. Above it is a globe of the Earth. In the bottom right, there are sketches of a percentage sign, an exclamation mark, and a right-angle symbol. In the bottom center, there is a sketch of an open book with some illegible text on its pages. The overall theme is academic and scientific.

Partnering with HigherEd: Designing an Effective Internship Program for your Organization

Tara Vansell, GIS Lab Manager, Lindenwood University

Internships

GIS Internships provide real-world GIS experiences for students combining instruction, technical skills and reflection. It allows students to get a glimpse of how a GIS professional uses their skills to deliver systems and services to their community.

- What it is –

- Opportunity for students to see the many functions of GIS software in action with real workflows, frustrations, work arounds, and victories.

- What it is not -

- A chance to use University extensions of the software
- University access to enriched data

Projects should be designed in a sustainable manner, if you don't have the extension, data, or credits, then it should not be incorporated into the project.

What you should know about Students and why Internships are so important.

An Undergraduate Student having completed an **Intro to GIS Class** = 37.5 hours of instruction

An Undergraduate Student having also completed an **Advanced Topics GIS Class** = 75 hours

An Undergraduate working on a GIS Certificate = 75 – 187.5 hours or 2 – 4 weeks

Lindenwood is a teaching university, there is no research lab(yet) for students to gain these experiences, We Need YOU!

There is no such thing as a Full Time Student!

Skillset of a Lindenwood GIS Certificate Candidate

Intro GIS = 85% ArcGIS Online, 15% ArcGIS Pro – Spatial Analysis with a cartography focus, students complete the class knowing how to create thematic maps appropriate for the dataset they are analyzing, how to create a Story Map, and how to present web maps in app templates.

Remote Sensing = 85% ArcGIS Online, 15% ArcGIS Pro – Learning the language of remote sensing, both technical terminology and learning how to describe what they see in the imagery. Students completing the course should know how to incorporate images and raster datasets in a GIS and perform basic georeferencing workflows, interpret imagery using different band combinations, and work with 3D scenes.

Advanced GIS = 60% ArcGIS Pro, 40% ArcGIS Online – Basically we try to touch every button! Students completing the course have touched the more advanced cartography tools in ArcGIS Pro, created dashboards, worked with real-time datasets, used model builder, set-up a survey in Survey 123, set-up a project in the Collector app, set up an ArcGIS Online organization and completed/participated in a service-learning project.

New Partnership – Dual Enrollment Opportunities - St. Charles County [CAPS](#)

Logistics

- Software/Logins – Important that Your Data is housed on Your Account!
 - Have a point person on staff to publish maps/datasets to ArcGIS Online
 - Create a Group for the project your intern will be working on in ArcGIS Online
 - Invite students to the group or they can ask to Join
 - As long as they are registered for the internship they may use their University login – This means you don't have to bother your admin.
 - They will also be assigned some Credits for use during their internship
- Deadlines for letting Lindenwood know you want an Intern
 - Fall Semester – July
 - Spring Semester and Summer – End of October
- Weather and Daylight – Collector App
 - Fall Semester – September to End of October
 - Spring Semester – End of March to End of April

Do I have work appropriate for an Intern?

Not Coffee!!! = 7 – 10 hours of GIS work over a 15-week semester = 105 hours

- Task that requires roughly 40 hours experience (Intro GIS)
 - Expecting to only take students that have had all their GIS classes is not asking for an Intern that is asking for an Employee
 - Everyone needs experience to get that first job
- Mentor Supervisor
 - They are going to have questions! You Must have a Designated Mentor who can clock mentoring hours.
 - Paid vs. Unpaid
- Beta project – you just need to get it started
- The need is for “Extra Data” not critical data
- Work is ongoing – it can be done over several semesters with varying sets of students
- Established workflow that a student can be trained up on within the first two weeks of internship

Do I have an Internship? or something else...Honors Research Project/Advanced GIS Service-Learning Project

- Research requires a student with roughly 80 hours of experience (Intro and Advanced)
- Task is not easily divided
- Data to be analyzed can be provided by you
- Need for a Literature Review/How other cities have done x,y,z...
- Metadata required
- Need for programming skills
- Timeline – a Semester to a Year for results

Software/Logins – Students are given X amount of credits for research from the University that can be used for this type of project. Enriched data and extensions can also be used for analysis.

Deliverable will most likely be a paper report or a Viewable Story Map

Virtual Internships - COVID Era

- Logistics: Set-up is largely the same as above in terms of accounts/groups
- May have a need for a shared folder – Office 365/Dropbox
- Communication is Key!
 - Set-up a weekly Zoom/Teams Check-in
 - Expect many, many, many emails and screenshots
 - Log communication hours (if you were in-person those interactions would have been part of the day)

I have Internship work, now what?

Let me know! Tara Vansell – tvansell@lindenwood.edu

- What semester are you looking to have an intern – Fall, Spring, Summer
- How many students are you hoping to have working?
- **Post the Internship with Career Services**
 - <https://www.lindenwood.edu/student-life/career-services/internships/employer-resources/>

The screenshot shows the 'EMPLOYER RESOURCES' page on the Lindenwood University Career Services website. The navigation bar includes links for HOME, STUDENT LIFE, CAREER SERVICES, INTERNSHI..., and EMPLOYER RESOURCES. The main heading is 'EMPLOYER RESOURCES'. There are two main sections: 'HOW-TO' and 'FAQS'. The 'HOW-TO' section features a photo of a building and the text 'Learn how to create an internship opportunity that will benefit both a Lindenwood student and your organization.' with a 'CREATE AN INTERNSHIP' button. The 'FAQS' section features a photo of people and the text 'Have questions? Refer to the document below or contact the Career Services Office.' with a 'FAQS' button. On the right side, there is a 'CAREER SERVICES' menu with options: 'DISCOVER YOUR NETWORK (NOV. 5, 2019)', 'FOR STUDENTS & ALUMNI', 'FOR EMPLOYERS', 'FOR FACULTY', and 'INTERNSHIPS'. The 'INTERNSHIPS' menu is expanded, showing 'STUDENT OPPORTUNITIES ON-CAMPUS', 'FACULTY AND STAFF RESOURCES', 'EMPLOYER RESOURCES' (highlighted), and 'INTERNSHIP APPROVAL FORMS (FOR STUDENTS)'.

Contacts for Career Services -

<https://www.lindenwood.edu/student-life/career-services/contacting-career-development/>

Two contact cards are shown. The first card is for Shannon Wright, Assistant Director of Career Services. It includes a photo of Shannon, his name and title, a brief description of his role: 'Works with School of Health Sciences and Hard Science majors including biological and earth sciences, chemistry, computer science, engineering, physics, mathematics, and pre-professional programs.', and an 'EMAIL' button. The second card is for Erika Hatfield, Career Strategist. It includes a photo of Erika, her name and title, a brief description of her role: 'Works with the School of Humanities and Social Sciences students.', and buttons for 'EMAIL' and 'SCHEDULE AN APPOINTMENT'.

I have Internship work, now what? Continued

- Interview/Select student intern or
- Trust the instructor to pair your organization with an intern
- Complete the Internship Contract

School of Humanities
Internship Agreement

This contract is a formal agreement between the internship student, the internship supervisor representing the host organization, and the faculty of record for the internship course designated below at Lindenwood University. This agreement must be signed by all parties prior to commencement of the internship.

Semester/Term	
Course Name & Number	GEO 40100: Internship in Geographic Information Systems
Internship Student	
Faculty of Record at Lindenwood University	Dr. Meredith Marsh
Supervisor Representing Host Organization	

AGREEMENT
The above parties mutually agree to the following:

- (1) The internship period shall extend from [xxx] to [xxx] with the exception of full or partial days in which no work is conducted by the host organization (e.g., national holidays or other special occasions). **[105] total hours** are required as part of this internship.
- (2) Throughout the internship, the internship student will report to the internship supervisor at the host organization and to the faculty of record at Lindenwood University.
- (3) **The internship supervisor at the host organization will provide opportunities for the internship student to gain practical experience in the following area(s) [xxx]**

To be filled out by student and supervisor.

- (4) The internship student is not entitled to any compensation from the host organization.
- (5) The internship student will complete training as requested by the supervisor at the host organization, which will be fully considered as part of the student's internship.
- (6) The internship student assumes full responsibility for all injury, illness, or damage expenses associated with the internship, unless injury, illness, or damage results from intentional or gross misconduct by host organization personnel.

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- (7) In case of illness or absence, the internship student will notify the internship supervisor at the host organization in advance of scheduled work assignments. In case of revised work schedules, the internship supervisor at the host organization will notify the internship in a timely manner.
- (8) The internship student will abide by all dress codes established by the host organization.
- (9) The internship student will follow and respect the host organization's work schedule, functional hierarchy, and codes of conduct. The internship student will also arrive to all scheduled work assignments on time and with all required materials.
- (10) The internship supervisor at the host organization agrees to complete a formal, written evaluation of the internship student's performance at the end of the internship period, as well as periodic evaluations as requested by the faculty of record at Lindenwood University. All evaluation tools will be prepared Lindenwood University. Unless explicitly agreed upon otherwise, all parties are entitled to the final evaluation of the internship student by the supervisor at the host organization.
- (11) The internship student will maintain detailed time records that are verified by signature of the internship supervisor at the host organization. The internship student will provide verified time records as requested by the faculty of record at Lindenwood University.
- (12) In cases of conflict, the internship student will first address the issue(s) with the internship supervisor at the host organization. If mutual resolution is not realized, the internship student will then contact the faculty of record at Lindenwood University. The internship student will document all conflicts in writing and submit to the faculty of record at Lindenwood University within a reasonable period of time.
- (13) Each party reserves the right to dissolve this agreement and cease the internship for cause at any time with written notice to the other parties.

DEPARTMENTAL REQUIREMENTS:

1. Once an internship is begun, it must be completed, barring medical or dependent emergencies.
2. The student is required to keep a journal of his/her internship experience.
3. The student is required to write a **6-8 page** research paper (depending on the credit hours for the course) that includes at least 5 bibliographic sources. The paper topic is of the student's choosing but should relate to the work they did in the field during their internship.
4. The site supervisor should submit a written performance evaluation to the faculty sponsor at the end of the internship (will be provided). Please email to the faculty sponsor, Dr. Meredith Marsh (mmarsh@lindenwood.edu)
5. The student, site supervisor, and faculty sponsor must sign the internship learning contract. The student keeps the original Internship Learning Contract. A copy of the signed contract must be given to the faculty sponsor and the undergraduate advisor in the History and Geography Department.
6. The faculty sponsor will determine the grade for GEO 40100 at the end of the semester. A student must submit to the faculty sponsor the journal and research paper, and request the evaluation from the site supervisor.

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Site Supervisor information

Name: _____
 Title: _____
 Phone: _____
 Email: _____

Internship Student _____ Date _____

Faculty of Record at Lindenwood University _____ Date _____

Internship Supervisor Representing Host Organization _____ **Date** _____

Please return this document prior to the internship beginning.
 The document can be mailed, faxed, or scanned into a PDF document and sent to the following:

Lindenwood University / 209 South Joppatonway • St. Charles, MO 63501
 PDF Scan emailed to mmarsh@lindenwood.edu
 Fax: (636-949-4426).

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I have Internship work, now what? Students

- Let Professor Vansell know you want to do a GIS Internship and the semester you have time for the internship. Do not do an Overload!
- Students should register for the internship at the time of registration regardless of whether they have one officially lined up yet. It is much easier to drop a class then to add a class.
- Responsibility of the Student to get all their paperwork turned in!
- Arrange a work schedule with your internship employer and stick to it!

As a Lindenwood GIS Intern you are an Ambassador for the GIS Certificate, your Program, and the University as a whole!

Homework

- Look over your To-Do list and see if you have a potential project!
 - Internship
 - Advanced GIS Service-Learning Project
- Contact me ASAP for Spring/Summer Semester 2020
 - Tara Vansell, tvansell@lindenwood.edu
- LinkedIn – Connect with me there as well Exhibitors and Students

