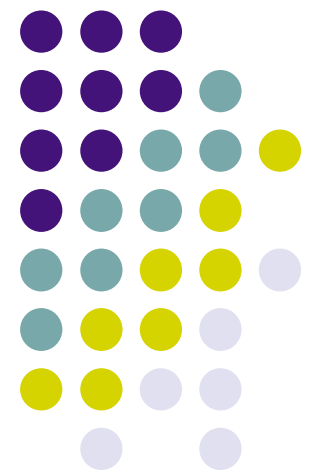
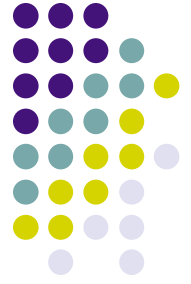


Establishing a Mandatory Field Experience Requirement: Lessons Learned

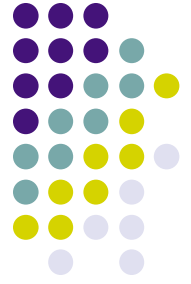
Alicia Farmer, Program in the Environment
University of Michigan
May 23, 2007





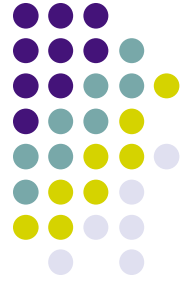
Goals

- Define “Field Experience”
- Provide an example of how Field Experience can be integrated into the curriculum
- Discuss student attitudes towards Field Experience requirements
- Compare various Field Experiences and their demands on staff/faculty time
- Highlight the specific challenges of Internships



Goals

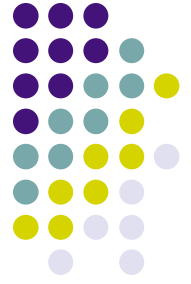
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Field Experience Defined

- “Experiential education is a philosophy and methodology in which educators purposefully engage with learners **in direct experience and focused reflection** in order **to increase knowledge, develop skills and clarify values.**”

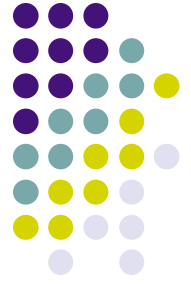
--Association for Experiential Education



Field Experience Defined

Eight Principles of Good Practice for All Experiential Learning Activities (NSEE)

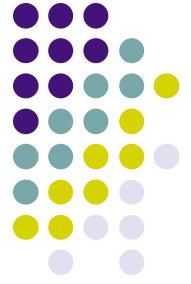
- Intention
- Preparedness and Planning
- Authenticity
- Reflection
- Orientation and Training
- Monitoring and Continuous Improvement
- Assessment and Evaluation
- Acknowledgment



Field Experience Defined

Program in the Environment (PitE):

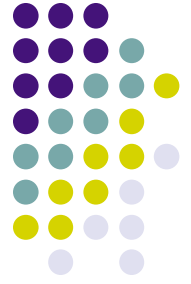
- The experience must be **off-campus** and
- Must focus on either
 - **human interactions** with the environment or with
 - **natural processes** including human impacts on these processes
- For an **extended period** of time
- With a **strong intellectual content** (including a research question or problem, collection of data and synthesis of results, or paper)



Field Experience Defined

Program in the Environment (PitE):

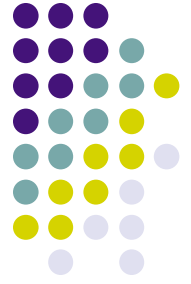
- 3 credit minimum
 - 1 field course
 - 1 internship (160 hours minimum in not less than one month's time)
 - 1 study abroad course



Goals

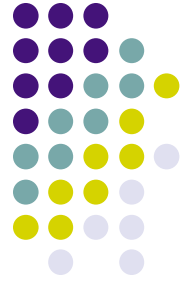
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Case Study: Field Experience in the PitE Curriculum



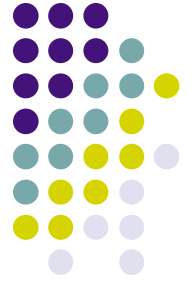
- Program in the Environment (PitE)
 - Undergraduate
 - Interdisciplinary
 - B.A., B.S. and Minor

Case Study: Field Experience in the PitE Curriculum



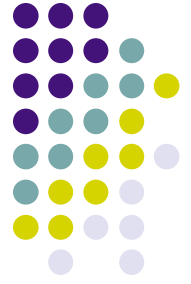
- General Ecology
- Analytics
- Environmental Social Science (2 courses)
- Culture and Environment
- Natural and Earth Systems Science
- Senior Capstone
- Specialization (3 courses)
- **Field Experience**

Case Study: Field Experience in the PitE Curriculum



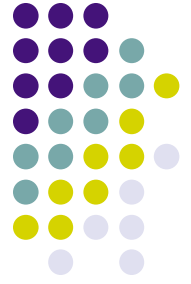
- Field Experience may be satisfied by...
 - Field Station Courses
 - Internships
 - Study Abroad

Field Station Courses



- U-M Biological Station, Pellston, MI

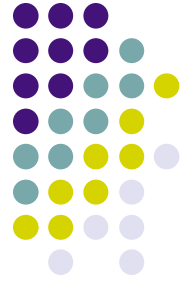
Field Station Courses



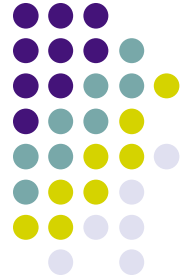
- U-M Camp Davis Geology Field Station, Jackson Hole, WY

Field Station Courses

- U-M New England Literature Program, Sebago, ME

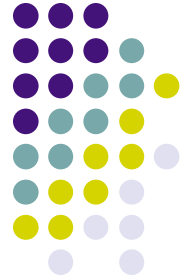


Field Station Courses



- U-M Michigan in Washington, D.C.

Field Station Courses



- OSU Stone Laboratory, Gibraltar Island, OH

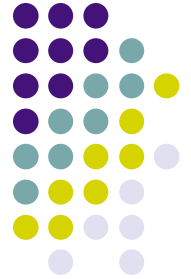
Internships

- Bird Center of Washtenaw County, Ann Arbor, MI



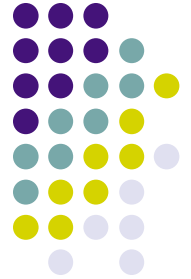
Internships

- Gore Range Natural Science School, Avon, CO



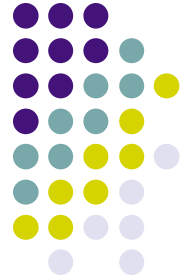
Internships

- Renewable Energy Policy Project, Washington, DC

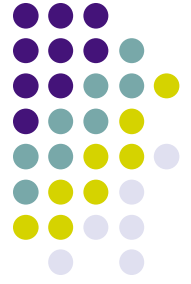


Study Abroad

- EcoQuest New Zealand

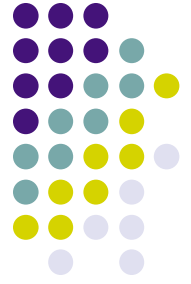


Study Abroad



- Institute for Central American Development Studies (ICADS)

Study Abroad

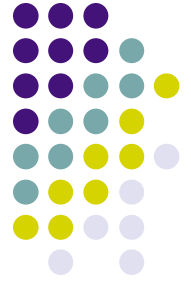


- University of New South Wales, Australia

Study Abroad

- St. Peter's College, Oxford, England

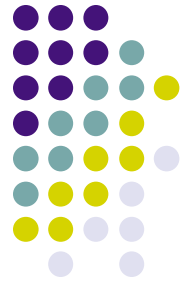




Goals

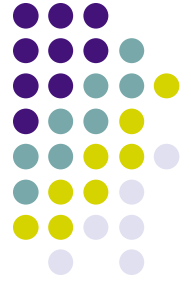
- Define “Field Experience”
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- Compare various Field Experiences and their demands on staff/faculty time
- Highlight the specific challenges of Internships

Student Preferences: What students say



- What Students SAY
- Survey of PitE alumni (through April '07)
 - 215 surveyed (first graduating class in 2003 = 2 students!)
 - 148 responded (69%)
 - 102 “Concentrators,” a.k.a. “Majors” (73% of all majors)
 - 46 minors (61% of all minors)
- “Please indicate how strongly each of the factors below influenced your decision on how to satisfy the Field Experience requirement”

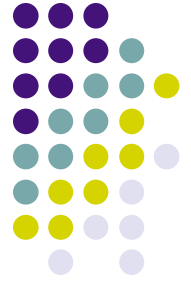
Student Preferences: What students say



Minors

	Strongly Influenced	Somewhat Influenced	Did Not Influence
Duration	5	7	9
Financial Cost	5	5	11
Location	20	1	2
PitE Scholarship	2	5	13
Biostation Scholarship	1	2	18
Other Scholarship	3	2	16
OTHER	4	1	

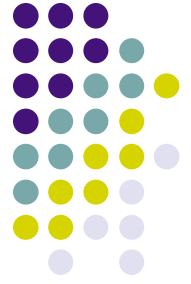
Student Preferences



Concentrators

	Strongly Influenced	Somewhat Influenced	Did Not Influence
Duration	20	33	20
Financial Cost	26	30	17
Location	52	19	2
PitE Scholarship	9	15	49
Biostation Scholarship	16	7	49
Other Scholarship	6	19	45
OTHER	18	6	1

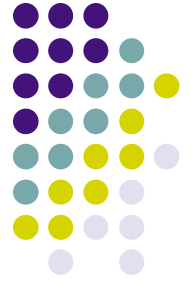
Student Preferences: What student say



All alumni (n=148)

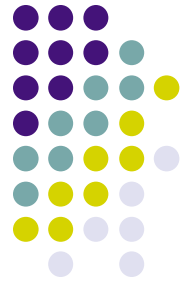
	Strongly Influenced	Somewhat Influenced	Did Not Influence
Duration	25	40	29
Financial Cost	31	35	28
Location	72	20	4
PitE Scholarship	12	20	62
Biostation Scholarship	17	9	67
Other Scholarship	9	21	61
OTHER	22	7	1

Student Preferences: What students say



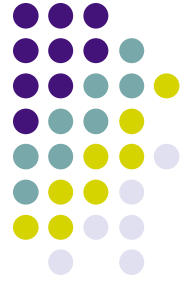
- Other influential factors:
 - Program Content/Subject matter (n=4)
 - Ability to learn/practice a foreign language (n=4)
 - Being Paid (n=4)
 - Program's reputation (n=3)
 - Satisfying other requirements at the same time (n=3)
 - Experiences/skills to be gained (n=3)

Student Preferences: What students say



- Location is most influential factor
- At Michigan, cost is less of an issue
- Scholarships do not “make or break” decision
- Individual “fit” important (Millennials?)
- Students look for “Value Added” (e.g. satisfying more than one requirement; being paid; learning new skills)

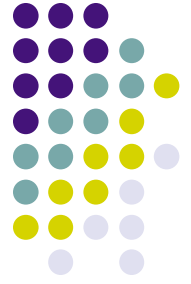
Student Preferences: What students DO



- Alumni Database records (through December 2006 grads)
- 167 students total
 - 📁 79=Domestic Field Station (47%)
 - 📄 63=Internship (38%)
 - 📖 25=Study Abroad (15%)

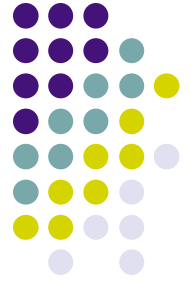


Student Preferences: Field Stations



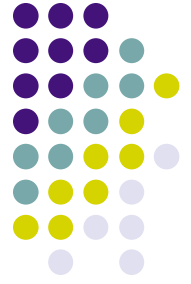
- Alumni Domestic Field Station Data (n=79)
- Program/State Ranks
 - 📁 U-M Biological Station, MI (58)
 - 📄 U-M Camp Davis Geology Station, WY (15)
 - 📄 UCSB Wildland Studies, MT (2)
 - 📄 U-M in D.C. (1)
 - 📄 U-M NELP (1)
 - ⌚ U-Montana Flathead Lake Biostation (1)
 - 🖨️ UCSB Wildland Studies, HI (1)

Student Preferences: Field Stations



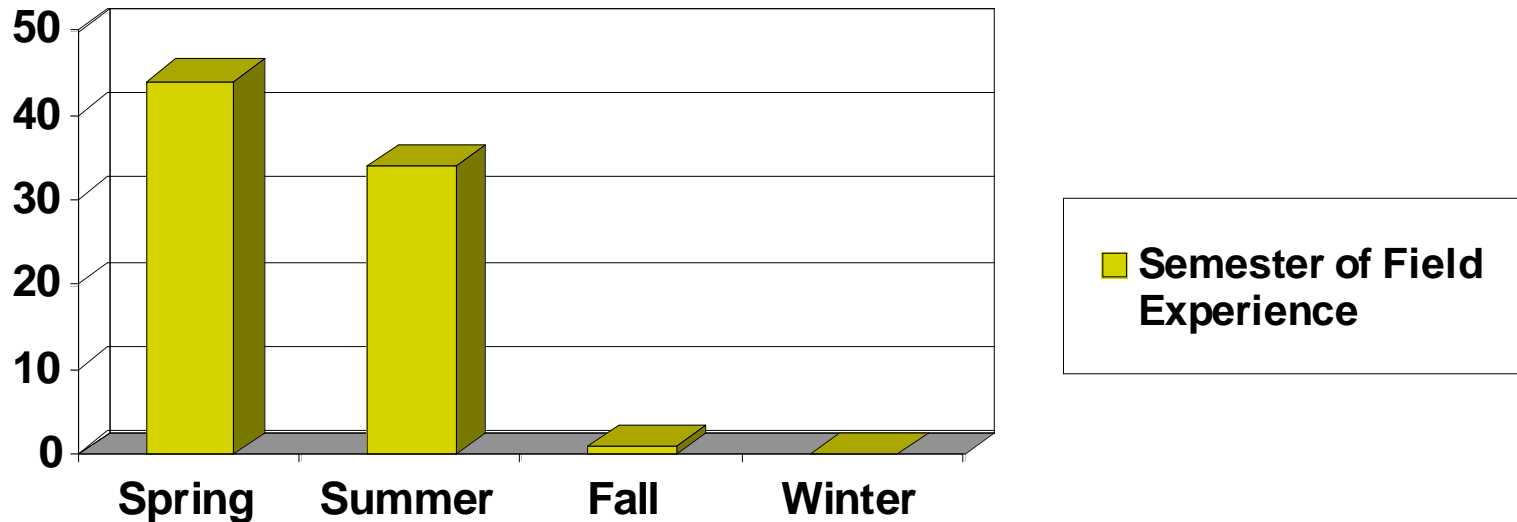
- Alumni Domestic Field Station Data (n=79)
- Student Level
 - 📁 Senior (45)
 - 📄 Junior (24)
 - 📄 Sophomore (6)
- Program duration
 - 📁 Half-semester (69)
 - 📄 Full semester (9)
 - 📄 2-4 weeks (1)

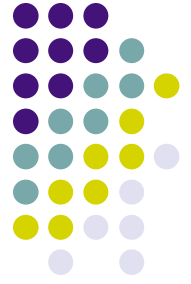
Student Preferences: Field Stations



- Alumni Domestic Field Station Data (n=79)

**Seasonal Distribution of Students'
Field Experiences**

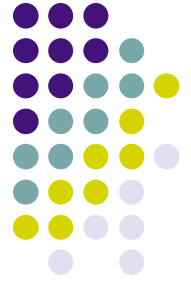




Student Preferences: Intern'ps

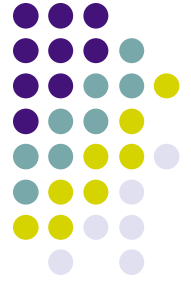
- Alumni Internship data (n=63)
- State/City ranks:
 - 📁 MI (30) [Ann Arbor, MI = 23]
 - 📄 D.C. (4)
 - 📄 CO (4)
 - 📄 NJ, NY, TX (2)
- Level:
 - 📁 Senior (34)
 - 📄 Junior (25)
 - 📄 Sophomore (4)

Student Preferences: Intern'ps

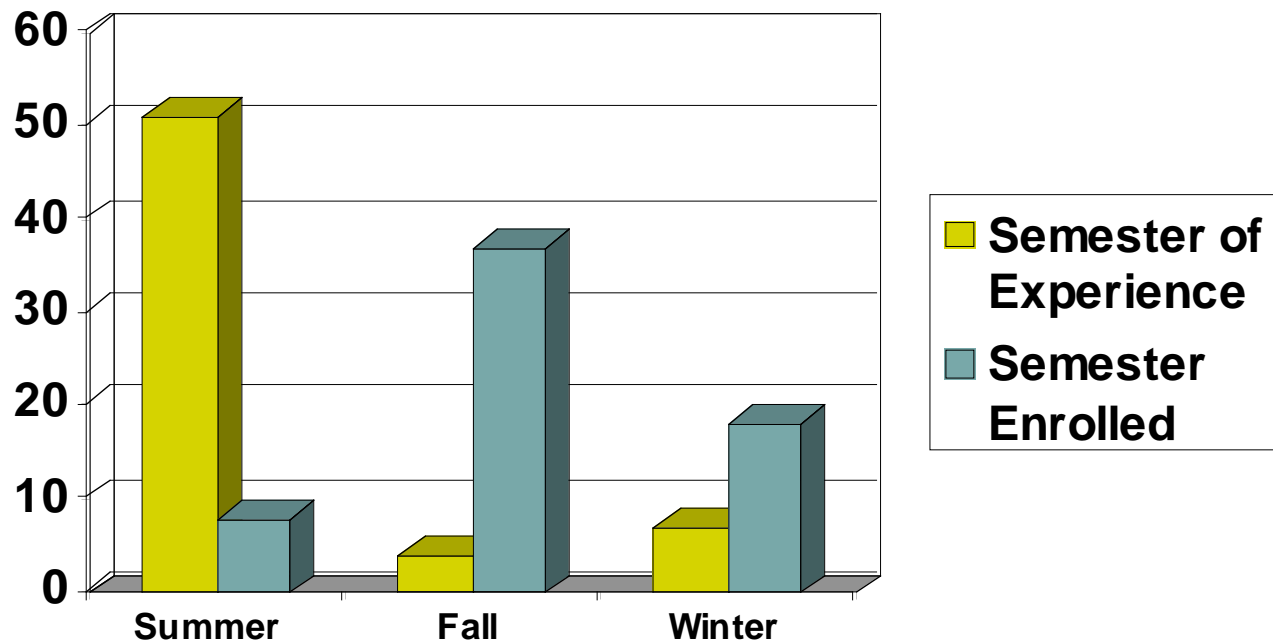


- Internship data (n=63)
- Organization sector:
 - 📁 Non-Profit (29)
 - 📄 Government (17)
 - 📄 Academia (10)
 - 📄 Private (7)

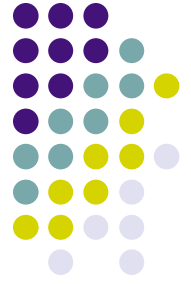
Student Preferences: Intern'ps



Seasonal Internship Distribution

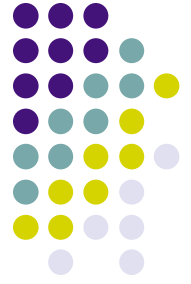


Student Preferences: Study Abroad



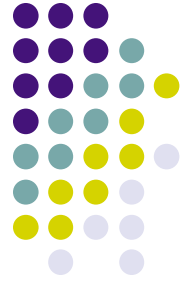
- Alumni Study Abroad Data (n=25)
- Program Ranks
 - U-M Global Intercultural Experiences for Undergraduates: Cuba (3)
 - School for Field Studies: Turks and Caicos Islands (2)
 - University of Capetown: South Africa (2)

Student Preferences: Study Abroad



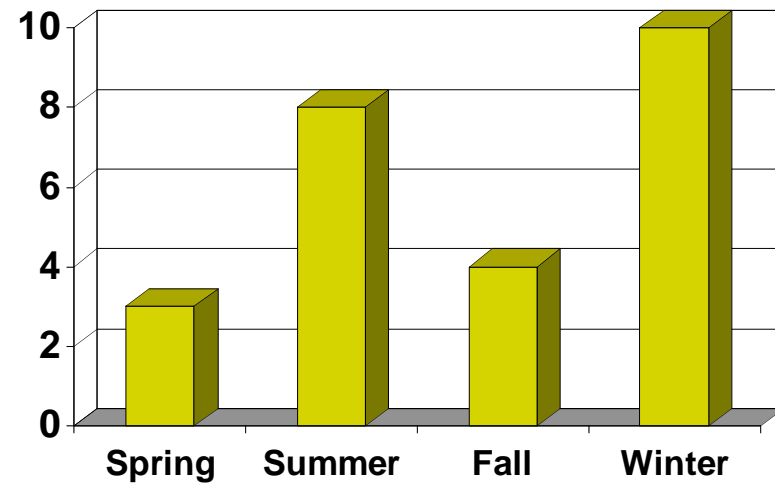
- Country Ranks
 - Australia (4)
 - New Zealand (4)
 - Cuba (3)
 - South Africa (2)
 - Panama (2)
 - Turks and Caicos Islands (2)
 - Canada (2)

Student Preferences: Study Abroad

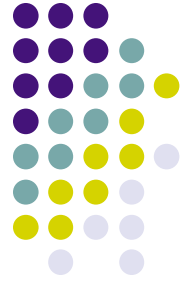


- Student Level
 - Junior (16)
 - Senior (8)
 - Sophomore (1)
- Program duration
 - Full semester (17)
 - Half-semester (4)
 - 2-4 weeks (4)

Seasonal distribution of Students
Studying Abroad



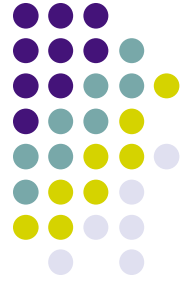
Student Preferences: Summary



Location,location,location:

- 49% of responding alumni said location “strongly influenced” their choice of Field Experience
- 48% of students *interning* did so in Michigan; 37% did so in Ann Arbor
- 73% of students doing *domestic field stations* went to the UM Biological Station in Michigan

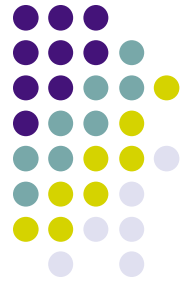
Student Preferences: Summary



Kill two birds:

- 92% of Domestic Field Station participants and 34% of all students use:
 - UMBS (General Ecology and Field Experience) or
 - Camp Davis (Intro to Geology and Field Experience)
- Most Study Abroad Programs satisfy multiple requirements (e.g. Natural and Earth Systems Science; Social Science...)

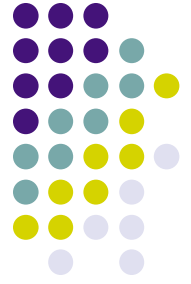
Student Preferences: Summary



Path of least resistance (or fewest opportunity costs?)

- Housing/Transportation
 - 48% of Internships are in **Michigan**; 37% of internships are in **Ann Arbor!**
 - 92% of field station participants are in **Michigan**
- In-residence credit/transfer of credit/pre-paid tuition
 - 40% of students studying abroad use **U-M affiliated programs**
 - 95% of Domestic field station participants are in **U-M programs**

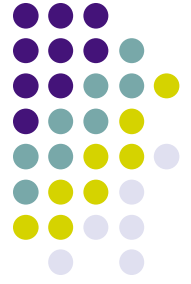
Student Preferences: Summary



Cure for the Summertime Blues

- 51 of 63 students (81%) intern in the spring/summer
- 78 of 79 students (99%) do a domestic field program in the spring/summer
- 11 of 25 students (44%) study abroad in the spring/summer

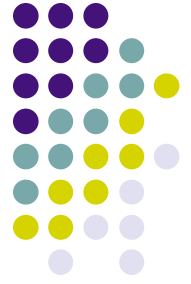
Student Preferences: Summary



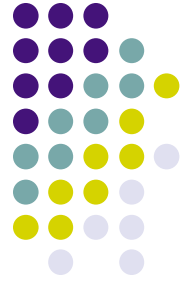
A Penny Saved

- Tuition
 - 81% of students intern in the spring/summer; 87% enroll for credits in the fall or winter
 - 87% of students choose half-term field station programs over semester-long programs
- Housing
 - 37% of internships are in Ann Arbor

Student Preferences: Summary



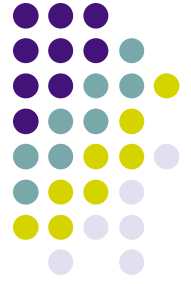
- Location, location, location: Students will choose experiences based on where they want to be (e.g. near home; in the Carribean).
- Kill Two Birds: Students are more likely to participate in programs that satisfy several requirements at the same time.
- Path of Least Resistance: Students prefer programs that are hassle-free.
- Summertime Blues: Students prefer to do their field experience in the summer.
- Penny saved: Students make choices based on cost.



Goals

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- Provide an example of how Field Experience can be integrated into the curriculum
- Discuss student attitudes towards Field Experience requirements
- **Compare various Field Experiences and their demands on staff/faculty time**
- Highlight the specific challenges of Internships

Staff/Faculty Demands



Key: Faculty Staff

	Domestic Field Station	Internship	Study Abroad
Helping students select/ find program	Low/informal None-Moderate	Low/informal Low-High	Low/informal Low-High
Set-up paperwork	None None-Low	Moderate Moderate	None Low-Moderate
Interaction during program	None None	None-moderate Low-Moderate	None None-Low

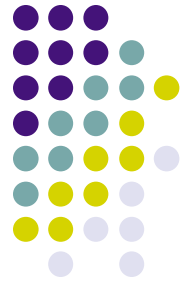
Staff/Faculty Demands - cont'd



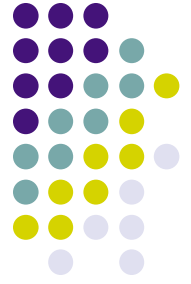
Key: Faculty Staff

	Domestic Field Station	Internship	Study Abroad
Grading/ assignments	None None	Moderate None	None None
Relationship Management (with orgs)	None None-Low	None Low-Moderate	None Low
Record keeping	None Low	Low Moderate	None Low-Moderate

Staff/Faculty Demands - cont'd

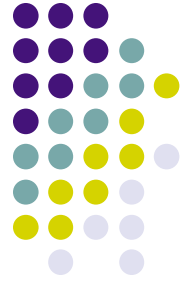


- Internships are most demanding of faculty/staff time
 - Faculty: setting up and grading assignments; on-going contact with students
 - Staff: helping students find and set-up internships; managing relationships with organizations; tracking student progress
- Domestic Field Stations are least demanding



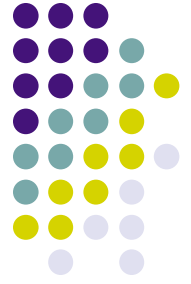
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Internship Challenges

- Finding Internships
- Ensuring quality
- Recruiting faculty
- Approximating parity
- Enforcing requirements



Internship Challenges

- Finding Internships
 - Laissez-faire or Affiliation Agreements?
 - How much student guidance?
 - “5 Simple Steps” handout
 - environ.jobs e-mail list
 - Student evaluations binder
 - “Ann Arbor Area Internships” handout
 - web links

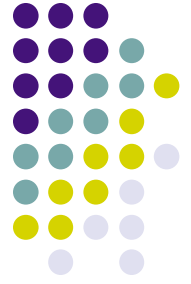
- Career and Educational Resources
- Educational resources
- Career Center
- Job Bulletin
- U of M
 - Career Planning and Placement
 - U-M Job Posting
 - U-M Office of Financial Aid
- Beyond U of M
 - Job and Internship Postings
 - Environmental Career Descriptions
 - Professional Associations
 - On-line Career Development
 - Graduate / Professional Schools



Job and Internship Web Listings

There are an increasing number of Web sites with employment listings. Some have a broad range of listings, while others list jobs for specific organizations. Check the Career Resource Center Office in 1533 Dana Building for hardcopies of some resources.

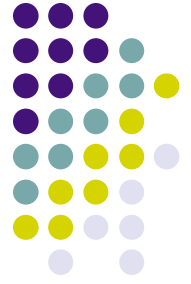
- American Zoo and Aquarium Organization [www.aza.org/JobListings]
- The Audubon Society [www.audubon.org/nas/hr]
- Backdoor Jobs [www.backdoorjobs.com]
- Conservation International [<http://www.conservation.org/xp/CIWEB/about/jobs/>]
- Cyber-Sierra's Natural Resources Job Search [www.cyber-sierra.com/nrjobs]
- Ecoemploy.com [www.ejobs.org]
- Employment Amazing Environmental Web Organization [www.webdirectory.com]
- EnviroNetwork.com [www.environmentnetwork.com]
- Environmental Career.com [www.environmentalcareer.info]
- Environmental Career Opportunities Online [www.ecojobs.com]
- Environmental Career Organization [www.eco.org]
- Environmental Education Jobs & Internships [www.eelink.net/eejobs.html]
- Environmental Health Perspectives Net [ehpnet1.niehs.nih.gov/docs/1996/104-9/pa.html]
- Environmental Professional's Homepage [www.clay.net/conf.html]
- Environmental Protection Agency [www.epa.gov/epahome/jobs.htm]
- EPA Internships, Fellowships, and Student Programs [www.epa.gov/epahome/intern.htm]



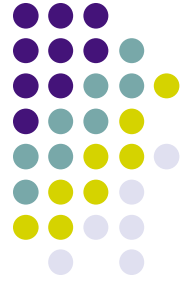
Internship Challenges

- Ensuring quality
 - Environ 398 Guidelines:
 - **“Responsibilities of the Internship Supervisor...”** (p. 3)
 - Internship Contract (Guidelines, pp. 5-6)
 - Student Evaluation (Guidelines, pp. 13-14)

Internship Challenges

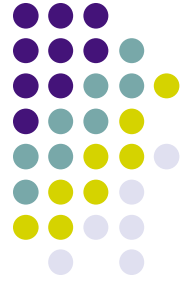


- Recruiting faculty
 - Faculty Associates indicate their willingness
 - default: small, reliable core (& begging)
 - Rewards?



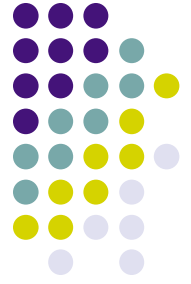
Internship Challenges

- Approximating parity
 - Guidelines (Environ 398 Guidelines)
 - “To receive three hours of academic credit...” (p. 2)
 - “Responsibilities of the Faculty Advisor...” (p.3-4)
 - Learning Contract (Guidelines, p. 7-8)
 - Student Evaluation (Guidelines, p. 13-14)



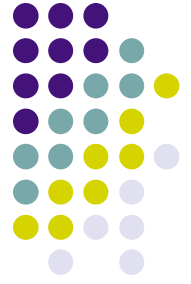
Internship Challenges

- Enforcing course requirements
 - Hold enrollment override “hostage” until Learning and Internship Contracts submitted
 - Faculty permission required for override
 - Communication with faculty at end of semester
 - Begging



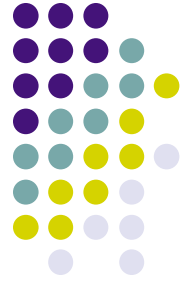
Goals

- Define “Field Experience”
- Provide an example of how Field Experience can be integrated into the curriculum
- Discuss student attitudes towards Field Experience requirements
- Compare various Field Experiences and their demands on staff/faculty time
- Highlight the specific challenges of Internships



Resources

- Association for Experiential Education (AEE):
www.aee.org
- National Society for Experiential Education (NSEE): www.nsee.org
- U-M Biological Station:
<http://www.lsa.umich.edu/umbs/>
- U-M Camp Davis:
<http://141.211.177.75/geo/undergrad/campdavis/>



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