

# Student Professional Development Support via an Employer-Academic Partnership at the University of South Florida

**Jeffrey Ryan**, *School of Geosciences, University of South Florida,  
Tampa FL. (reporting – this has been a whole-department enterprise for  
some time...)*



# Employers Summit (Grad & Undergrad)

## Consensus views:

- ✘ Professional skills are critical in geoscience graduates, at all levels:
  - + Career awareness
  - + Interpersonal skills (Teamwork, cultural awareness)
  - + Professional ethics
  - + Communication (oral and written)
  - + Project management
- ✘ **Many of these are not readily amenable to classroom instruction (at least not by regular faculty!!)**

# A strategy to consider...

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- ✘ Engaging local employers and/or your alumni for student professional development (and even instructional) support and assistance
- ✘ A “case study”
  - + Nov. 1997: The USF Geology Alumni Society (GAS) is formally established. Organization of USF Geology graduates working in environmental industries and state/regional/local government. Later expanded to include representatives of local/regional/national firms where USF graduates work
    - ✘ Developed at the behest of our alumni, with USF Geology/Geoscience support

# GAS professional development activities:

- ✘ Since 1998: Resume writing workshops for students
- ✘ Since 1998, biannually: **Geology Alumni Society Equipment Expo and Career Fair**
- ✘ Since 2001: **Geology Alumni Society Banquet** (students invited by regional employers, who pay for tables at this event)
- ✘ Since Fall 2002: GAS “Rockbreaker” semester kickoff receptions for students, alumni, and faculty (networking events)
- ✘ Since 2005: GAS/Geology graduation receptions for students
- ✘ Variably since 1998: colloquium lectures/panel discussions on geoscience careers, professional licensing, etc.

## Theme of almost all GAS programming: student career preparation and readiness!

- Faculty engagement occurs at the request of GAS (we provide space, address on-campus admin hurdles, etc.)
- GAS explicitly reaches out to non-alumni employer partners to engage them in these activities

# Alumni-Employer-Faculty academic partnering, for students...



## Geology Alumni Society Meeting Minutes

**Date:** 7 May 2014

**Start Time:** 18:05

**Attendees:**

Dr. Bruce Nocita	Chairman
Dr. Len Vacher	USF Faculty Representative
Dr. Jeff Ryan	USF Faculty Representative
Katie Giglio	USF Faculty Alumni Representative, Liaison
Ann Sava	Commencement Chair
Ophelia George	Geology Graduate Student Organization Treasurer
Jon Hull	Mass Communication/Rockbreaker Chair
Eileen Rodriguez	Financial Chair
Dr. Dorien McGee	Director
Matt Wissler	Secretary

1) Approval of minutes from last meeting

- Meeting minutes were approved.

2) Old Business

a. Treasurer's Report (Eileen Rodriguez)

- No report.
- Transfer from Operating Account to Endowment Account needs to occur.
- Eileen's meeting with Christina was postponed due to illness. Once the meeting is rescheduled the transfer will occur.
- Dorien inquired whether the matching funds from Exxon have been received. Eileen to check.

b. Resume Workshop (Dr. Bruce Nocita)

- Workshop was held on 17 April 2014.
- 8 students attended (6 undergraduate and 2 graduate students).
- Food was provided.
- Tampa Bay Area Environmental Professionals (TBAEP) also has resume workshop recently. Next year's workshop should be scheduled at a different time (potentially in the spring).

c. Spring Graduation Reception (Ann Sava)

- Reception held on 3 May 2014 (day after graduation) at the Natural Environmental Science (NES) Building.
- 14 students attended (included one student from the ESP program). Family and friends of graduates also attended.
- There were more attendees than RSVPs received. For future receptions, a proper headcount will be needed.



d. Professional Science Masters Symposium (Dr. Len Vacher)

- PSM Symposium was held on 23 April 2014 following Dr. Pasek's class at the Chemistry Building.
- 4 Geology Alums and the next 4 PSM students were in attendance.
- The presentation was instructive and underscored the value of inclusion of the alumni in the review process.

3) New Business

a. Geology Club Update (Ophelia George)

- No update.

b. GGSO Update (Ophelia George)

- Spring Picnic was held on 3 May 2014 at the USF Riverside Park.
- Turnout was excellent.

c. Field School (Dr. Bruce Nocita, Dr. Jeff Ryan and Jon Hull)

- Jon Hull sent out e-mail blast soliciting donations for the Field School fund earlier in the week.
- 30 students are enrolled in the Field School.
- The Field School fund is not available but is likely around \$3,000.
- USF Alumni Danny Lindsay was hired by the Geology Department to serve as program assistant and will travel with students and instructors to Field Camp at assist.
- The increased size of Field Camp has increased the potential liability concern for the Geology Department.
- An increased focus on health and safety has been initiated with First Aid and CPR training for all instructors.
- All students must provide documentation of health insurance prior to departing for Field School.

4) Other Business

a. Dr. Mark Stewart Retirement (Dr. Len Vacher)

- Dr. Stewart has agreed to be honored at the Fall Rockbreaker.
- An event will be planned similar to the Mary Haney retirement celebration at the 2013 Fall Rockbreaker.
- Turnout will be huge so ample space will be needed.

**Next Meeting:** 27 August 2014 at 18:00

**Closing:** Dr. Bruce Nocita adjourns meeting.

**End Time:** 18:45

# Alumni-Employer-Faculty academic partnering, for students...



Explicit employer partnerships on courses and curricula (USF PSM in Geology; Professional Advisory Committee; courses on Professional Geology and Careers in the Geosciences)

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Ophelia George	Geology Graduate Student Organization Treasurer
Jon Hull	Mass Communication/Rockbreaker Chair
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# Programs and courses born of the USF-Employer partnership:

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## USF Professional Science Master's Degree in Geology

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The USF Professional Science Master's Degree in Geology is a non-thesis M.S. degree option that culminates with internship experience with local companies or agencies in the environmental field. This program is appropriate for professionals already working for geoscience companies in the region, and for students interested in pursuing careers in environmental/water science fields. The program requires 27

hours of structural  
internship project

Internship project

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Internship stude

[Geology Alumni Society](#)

at the [Southwest Florida Water Management District](#)

(SWFWMD) Tampa office.

For more information about the USF Professional Science Master's Degree in Geology contact our Program Specialist

[Jessica Wilson](#) at (813) 974-8188, or by email [normanj@usf.edu](mailto:normanj@usf.edu).

**Curriculum**

**A minimum of 30 credit hours is required.** All courses are for 3 graduate credit hours unless otherwise noted.

**Recommended Core Courses: 12 hours**

**Graduate Study**

- Developed in cooperation with Alumni/Employer network
- Approved as a certified Professional Science Masters program in 2013
- Overseen by a Professional Advisory Committee comprised of regional environmental employers.

and a 3-credit

environmental geophysics,

Professional Geologist

comprehensive exit exam

must submit an Internship

committee determines the

presentation of the results

hosted by the

# Courses born of the USF-Employer partnership:

- Covers both career information and personal academic planning
- Employer “panels” on employment sectors and career options

## INTRODUCTION TO PROFESSIONAL GEOSCIENCE GLY 6739, Section 008 Fall 2015

### Course Information

Instructor: **Dr. Bruce Nocita**  
Geology Program, School of Geosciences  
E-mail: [bnocita@usf.edu](mailto:bnocita@usf.edu)

Instructor: **Dr. Len Vacher**  
Geology Program, School of Geosciences  
E-mail: [vacher@usf.edu](mailto:vacher@usf.edu)

### GLY 6739: INTRODUCTION TO PROFESSIONAL GEOSCIENCE FALL 2015

Date	Class Topic	Instructor/Panelists
8/25/2015	<b>CLASS #1: Introduction</b> The Geology Professional Masters Program: History of and introduction to the USF professional geology network (Geology Alumni Society etc). Introduction to and review of course.	Len Vacher, Bruce Nocita
9/1/2015	<b>CLASS #2: Project Management &amp; Networking</b> Principles of project management; complexity and uncertainty of projects; effective project management	Bruce Nocita
9/8/2015	<b>CLASS #3: Communications in the GeoSciences</b>	KT Moran (tentative), Bruce Nocita
9/15/2015	<b>CLASS #4: Networking Event</b> Introduction to professional geologists in Florida: Hydrogeology, coastal geology, geophysics. State, federal, private.	Eric DeHaven; Gabrielle Enos; Tony Grasso; Kirby Stallings; Mike Wightman; Matt Wissler; Terry Griffin; Mike Starks; Ann Sava; Sandie Will
9/22/2015	<b>CLASS #5: Business Development</b> Business development vs. marketing. What is involved in each; who does it; client relationships; cold selling versus cross selling; proposal writing.	Bruce Nocita
9/29/2015	<b>CLASS #6: Project documentation and reporting</b> Preparation of field work orders, field notes, data presentation, report writing.	Bruce Nocita; Jon Hull
10/6/2015	<b>MID-TERM EVENT - PART I</b>	Bruce Nocita, Len Vacher
10/13/2015	<b>CLASS #7: Scoping, budgeting and scheduling a project</b> Lump sum, time and expenses, and contingency budgeting; how to prepare a budget; how to avoid short falls, change orders, how to track project budgets. Gantt diagrams; project management software; time and personnel allocations; anticipating scheduling fallouts.	Tony Grasso; Mike Wightman
10/20/2015	<b>MID-TERM EVENT - PART II</b>	Bruce Nocita, Len Vacher
10/27/2015	<b>CLASS #8: Business Ethics and Leadership Skills</b> Ethical perspectives; staff/employee management; team building; the role of the manager; time management and billable hour requirements.	Mike Starks, Gregg Jones, Ron Noble
11/3/2015	<b>CLASS #9: Liability avoidance</b> What is liability and who is liable; relationship of licensure to liability; government versus private sector protections; general guideline to liability avoidance.	Gabrielle Enos; Mike Schackne
11/10/2015	<b>CLASS #10: Professional Development</b> Technical expertise, administrative duties, budgets, conference presentations, committees, marketing, mentoring, regulatory meetings, professional organization membership/participation.	Bruce Nocita
11/17/2015	<b>CLASS #11: Wetlands and GIS</b> Wetland delineation, endangered species, uses of GIS	Steve Rehbaum, Ryan Horstman, John Emory
11/24/2015	<b>CLASS #12: Panel discussion</b> Concept of Professional Geologist. Who, where, and why be licensed; ethical requirements; educational requirements; work requirements; testing; and discipline.	Tom Scott; Gabrielle Enos; Ann Sava
12/1/2015	<b>No Class</b>	
12/8/2015	<b>FINAL EXAM</b>	

- Gateway offering to the PSM program
- A “business of geoscience” course, taught by an employer partner

### Syllabus (version 1/13/2016) GLY 2930–004 Preparing for a Career in Geology (1 credit) Spring 2015

Class meetings:  
Wednesdays 6:30-7:45, USF Visualization Center (CMC 147)

### COURSE SCHEDULE (SUBJECT TO CHANGE)

Wed	Topic	Instructor/Panelists
1/13	Introduction to course	Len Vacher; Bruce Nocita
1/20	The Geology curriculum: BS/BA, tracks, prerequisites, sequencing, strategies. Geology within Geosciences	Mark Rains, Greg Herbert, Rene Alvarez
1/27	Field geology at USF	Paul Wetmore, Ping Wang, Mark Rains, Sarah Kruse
2/3	The consulting profession 1, Assessment and remediation	Bruce Nocita (S&ME), Mike Lodato (Geosyntec), Greg O'Neal (Golder), Mike Starks (ERM), KT Moran (Arcadis)
2/10	The consulting profession 2, Water resources	Gregg Jones (Cardno), Cathleen Jonas (SDI), Jim Guida and Brian Studiale (Progressive Water Resources)
2/17	SWFWMD	Brian Armstrong, Sandie Will, Dave Arnold, Kristina Mallams, Julie Zydek
2/24	Energy (Banquet on 2/27)	Jeff Brame (Brame GeoScience, LLC)
3/2	USGS, Water Mission Area	John Stamm, Kim Haag, Scott McBride, Jason Bellino, Terrie Lee
3/9	Analytical laboratories	Zac Atlas (USF SGS), Charlene Walker (Mosaic), Lindsay Karashay (EMSL)
3/16	SPRING BREAK	
3/23	Professional Geology, and the GIT	Lou Bush et al.
3/30	Small business	Eileen Rodriguez (USF SBDC), Mike Wightman (Geoview), Gabrielle Enos (GHD)
4/6	Mineral and rock resources	Tom Scott (FGS), Pete Karashay (Mosaic), et al.
4/13	Research and academia	Geology faculty
4/20	Career Principles	Mike Schackne (S&ME)
4/27	Exit event: Wrap up, discussion and report out	

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Central to both courses:  
Career awareness  
Professional networking  
Communication

Syllabus (version 1/13/2016)  
**GLY 2930-004 Preparing for a Career in Geology (1 credit)**  
Spring 2015

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		Assessment and remediation
		Geology (S&ME), Mike Lodato (Geosyntec), Greg O'Neal (Golder), Mike Starks (ERM), KT Moran (Arcadis)
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# Observation:

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Many of the professional development and outreach activities led by our geoscience employers via USF-GAS connections (career awareness events, resume/interviewing tutorials, guest lectures, internships, input on/participation in courses and curricula) were identified by Summit employer participants as activities on which they could partner with Departments

## How to do this?

- ✘ **Start VERY small** (for us it was a student-funded afternoon reception/info session with local employers, that then grew...)
- ✘ **Help your alumni re-connect** (with your students and each other)
  - + A faculty “hero” is very helpful...
  - + If it’s worthwhile to do, it’s worth assigned time....
- ✘ **Say “thank you!”** (all the time!)

# The USF GAS Geo-Expo:

Held on the USF campus each April



- Regional geoscience employers conduct live field demonstrations (well drilling, geophysical surveys, etc.)
- rolling informational seminars for students
- Student research poster session
- Employer information sessions
- **Attended by USF Geoscience students, high schools, etc.**

# RockBreaker and Banquet: Networking events

**Rockbreaker** – first month of the semester social event, sponsored by alumni society and varied employers, at some near-campus, beer-available venue....

- Alumni, employers, students, and faculty attend



# RockBreaker and Banquet: Networking events

## Banquet: Annual GAS Fundraising event

- Goals – funding/awarding of GAS-initiated scholarships – and formal student-employer networking
- Regional employers “buy” tables, which include seats for students, who are invited to attend free of charge
- Typically 10-15 employer-funded tables, and ~50 paid student attendees



# Geosciences-GAS Graduation Receptions

Both Fall and Spring semesters, based on numbers of graduates.

- Reception for graduates and their families with the faculty and representatives of GAS
  - GAS “welcomes” students into the Society (and pays their first year’s dues)

