

Helping Your Department/Program Survive and Thrive in the Changing World of Higher Education

An AESS/NAGT InTeGrate Webinar

Thursday, April 18, 2019
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 Rider University



Rider University Department of Geological, Environmental & Marine Sciences (GEMS)

- Private, non-sectarian, accredited, comprehensive; est'd 1865; compete with NJ publics
- Carnegie Classification:
 - M1-Master's Colleges & Universities: Larger Programs w/ Professions plus arts & sciences, some grad programs
- ~5400 students (~1000 graduate); 25 states, 30 countries; ~73% from NJ (www.collegefactual.com)
- Avg costs: \$59k+ before aid; \$30k+ after aid; ~89% receive financial aid (nces.ed.gov)
- Recent outcomes:
 - 1st yr retention rate: 80% (nces.ed.gov)
 - Graduation rates: 55/62% (4/6 yr) (nces.ed.gov)
 - Grad employment/grad school rate: 93% (<https://www.rider.edu/outcomes>)

- Geosciences major est'd ~1968
- In response to student demand & job markets:
 - ~1992 *Marine Sciences*
 - 1998 *Environmental Sciences*
 - 2005 *Integrated Mathematics & Sciences* [Elementary Education majors]
 - 2011 *Sustainability Studies* minor *
 - 2018* *Environmental Studies* (B.A.)
 - 2019* *Earth Sciences* (B.A.) (HS Education majors)
- Recent outcomes:
 - Retention has fluctuated with 92% in 2018
 - >90% 4 yr graduation rates
 - High job and grad school placements

* Independent program created and led by GEMS faculty
 * Most recent version of programs for "rising teachers"



THE CHRONICLE OF HIGHER EDUCATION
 October 29, 2015 by Andy Thomason

2015

Rider U. Will Cut 14 Faculty Members and 14 Programs to Save Money

THE CHRONICLE OF HIGHER EDUCATION
 November 16, 2015 by Andrew Mytelka

Rider U. Faculty Accepts Pay Freeze to Forestall Layoffs and Program Cuts

The majors that are saved from elimination are art and art history, advertising, American studies, business education, French, [geosciences](#), German, [marine science](#), philosophy, piano and web design. The bachelor of arts program in economics and the graduate program in organizational leadership are also spared from being cut.



2016 Prioritization* Review: 3 Earth Science programs evaluated separately

Quintile 2	1=lowest; 5=highest
Geosciences	Reconfigure to Increase Curricular Efficiency
Quintile 3	
Environmental Sciences	Reconfigure to Increase Curricular Efficiency
Marine Science	Reconfigure to Increase Curricular Efficiency

*Dickinson (2009). *Prioritizing Academic Programs and Services: Reallocating Resources to Achieve Strategic Balance*



Course	Name	GEOS*	ENVS	MARSCI	ENVST*	Gen Ed	
GEO-100	Earth System Science	R	R	R	R	Y	4 program course
GEO-102	Earth Materials & Processes Lab	R	R	R	R	Y	3 program course
GEO-113	Environmental Geology						2 program course
GEO-168	Mesozoic Ruling Reptiles	E					unique to 1 program
GEO-304	Elements of Mineralogy	R	E				gen ed course
GEO-305	Petrology & Petrography	R					
GEO-306	Sedimentology & Stratigraphy	R	E	R			R = required
GEO-310	Structural Geology	R					E = elective for major req
GEO-350	Soils & Surficial Processes	R	R		E		
GEO-407	Hydrology & Water Resources	R	R		E		
ENV-100	Environmental Science				R	Y	
ENV-110	Future of Natural Resources						
ENV-200	Statistical & Computer Ap's in Natural Sciences	R	R	R	R		
ENV-205	Intro to Geographic Information Systems	R	R	R	R		
ENV-220	Weather & Climate Change	E	R	R	R		
ENV-340	Environmental Field Methods and Data		E		E		
ENV-350	Environmental Toxicology		E				
ENV-375	Environmental Biogeochemistry	E	E		E		
MAR-120	Oceanography	R			R	Y	
MAR-121	Intro Oceanography Lab	R			R	Y	
MAR-210	Marine Life Through Time				E		
MAR-300	Intro Field Marine Science				E	R	
MAR-325	Marine Vertebrates				E		
MAR-330	Chemical Oceanography		E		R		
MAR-340	Marine Processes & Environments Seminar		E		R		
MAR-360	Plankton Ecology		E		R		
MAR-401	Marine Ecology		E		R		
MAR-410	Physical Oceanography		E		R		
Total required courses to unique program		3	1	1	2		

Note: lists do not include courses required in mathematics and cognate sciences
 *field course taken externally
 *R.A. with additional courses in policy and humanities

Students also complete:
 • Cognate math and sciences
 • Liberal Arts General Education Program recently revised



GEMS Actions Taken

What are the priorities for your program?

- Another internal review and strategizing
- NAGT Traveling Workshop
 - Core Sessions
 - Envisioning Your Program
 - Program Design
 - Action Planning & Departmental Management
 - Preparing Students for Careers Day One
 - Building a Thriving and Valued Department
- Developed class university mis
- Updated GEM
- Clarified SLOs
- Utilizing unive to investigate new possibilities

How can the program ensure the success of all students in the context of these profound changes?

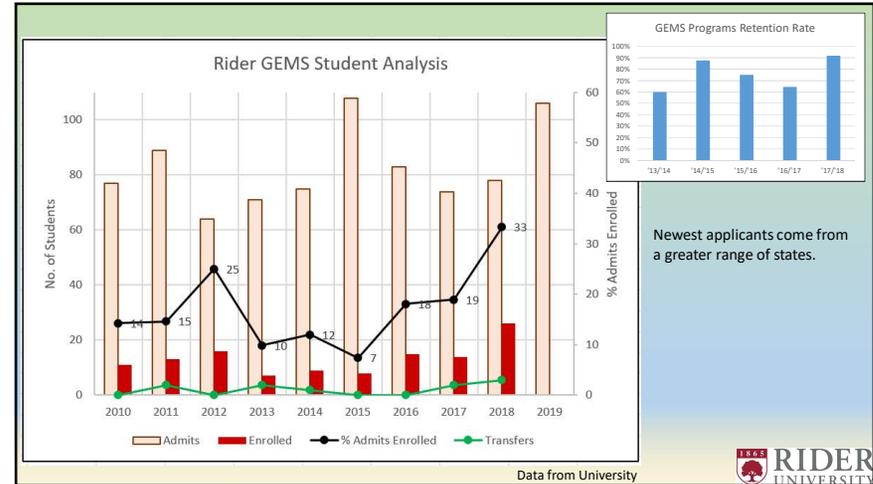
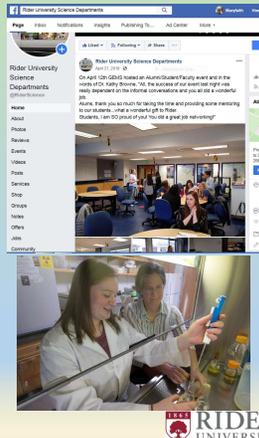
- Alumni rallied to communicate importance of degree and success of programs
- Enhanced alumni network and "friends" to actively involve in *more*:
 - Student mentoring
 - Connections for internship and job opportunities
 - Fundraising (50th anniversary; internship "stipends"; GEMS scholarships)
- Attending more to needs and challenges/successes of our students, with help from university partners
- Promoting our student academic successes more & differently, with help from university partners
- Encouraging GEMS students to get involved in campus initiatives
- More interactions with prospective students

How can your program thrive among other programs competing for scarce resources?

- Pursued more robust & strategic partnerships with other units: e.g. Admissions, Dean's Office, Student Support Services, Marketing, Development, Academic Affairs
- Pushed for more marketing support and implemented external options
- Participating in social media campaigns
- Utilizing university's research firm to investigate improvements and new possibilities

How can your program thrive among other programs competing for scarce resources? (cont'd)

- Implemented internal “campaign” to clarify and review with administration the department’s:
 - Curricular efficiencies &
 - Adjustments to external demand implemented throughout our history
 - ...invited to help clarify criteria to evaluate programs in prioritization process
- Numerous courses in CLAS General Education program
- Increased Transfer Agreements with community colleges
- Improving our presence on campus
- Enhancing visibility of student engagement in projects
 - in particular in our use of campus as a “living lab”



At the same time, the University has been:

- Refining marketing messages & strategies
- Addressing financial challenges
- Adding new programs across the university
- Renovating parts of the Science & Technology (GEMS classrooms in summer 2018)
- Renovating dorms
- Improving food service options
- Elevating sustainability profile
- As a community, working to recover from 2015
 - Successfully settled most recent AAUP contract
 - Beginning to add back some cuts
 - “Rider Recognizes”



“The GEMS department has emerged on campus as a shining example of how challenging circumstances can be used to revitalize a program. The level of engagement by the faculty, the innovative thinking about the curriculum, and the initiation of new partnerships all have been immediately impactful. While there remains much work to be done, the efforts of the Department have gone a long way toward ensuring a collaborative approach moving forward.”

Dr. Jonathan Millen
Dean, College of Liberal Arts & Sciences



- Increase enrollments,
- hire new faculty,
- continue to explore curricular innovations and interdisciplinary partnerships



"The feedback given to the University by the GEMS department was invaluable in helping us improve our internal processes. It forced us to not take the data in our Student Information System for granted but rather understand the nuances of our different program offerings when trying to evaluate them. More specifically, it helped us define an "academic program" not merely as a Banner code, but rather an inseparable unit of the academic enterprise (which, in the case of GEMS, includes multiple and what appeared to us initially, seemingly disparate academic programs). "

*Boris Vilic
Dean, Continuing Studies
Co-Chair, Prioritization Task Force*

- No one action is *the* solution.
- Be well understood, visible, active, proactive, innovative and unless told otherwise, assume other internal units are there to help.
 - When/if you are told otherwise, find a way on your own.



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