

Please Join Us

NPSMA Regional Workshop

“Green and Growing: Environmentally-Focused Professional Science Master’s Programs”

Hosted by California State University, Monterey Bay

September 27-28, 2012

Portola Hotel and Spa, Monterey, California



NPSMA Members \$255

Non Members \$355

Discounts for PSM Students.

Price Includes:

- **Workshop Admission for Two Days**
- **Discount Hotel Reservations at Portola Hotel and Spa**
- **Breakfast, Lunch, and Evening Reception**

Register before September 7, 2012 at:

<https://npsma.memberclicks.net/upcoming-workshops>

NPSMA Joins Forces with Sheila Tobias on Tracking Grads Project

NPSMA members now have access to a service that provides information about where long-time PSM graduates are employed, what their job titles are and how they can be reached. The project, managed by Sheila Tobias and her team, uses social media in creative new ways. Program directors are required only to provide graduates’ names and year of graduation. Detailed search results are presented to program directors only. Aggregated data is made public.



In 2011-2012, The *Tracking Grads* team was able to locate 1,840 of a cohort of 2,400 graduates of PSM programs. Initial inquiry results included names; location of employment; job title; whether graduates are working in the private, public, or education sectors; and whether they had remained in the state where they had trained — findings of especial interest to PSM stakeholders.

The method will be discussed in detail in an upcoming *Chronicle of Higher Education* article which NPSMA will post on their website in July.

We would like to hear from you if you are a program director whose graduates have not yet been included in this project. Contact the NPSMA at admin@npsma.org for more information on the project or to learn what services can be provided on a program-by-program basis.

MOU Between the NPSMA and Keck Graduate Institute Bogdan

Inside this Issue

NPSMA 3rd National Conference to be held November 7-9	2
March 2012 Tampa Workshop Recap	2
Rice University Working with NASA	3
New PSM Programs and Courses at Oregon State University	3
SUNY PSM Consortium News, Information on CAMEL	4
Alum Testimonial, New Board Members, Alumni Connection	5
NPSMA Membership Form	6

You Are Invited

NPSMA 3rd National Conference
“Enhancing Global Workforce Competitiveness through PSMs”

November 7-9, 2012

DoubleTree by Hilton Hotel, Denver, Colorado

Topics:

Navigating the Approval/Validation Process

Developing Academic Pipeline Tailored to PSMs

Partnerships with Industry and Business — Grant Writing

Alumni Perspectives/Posters

Effective Global Partnership and Leadership for the Professional in Science

Strategic Leadership and Professional Development

Development of Local and Global Partnerships

How to Build Sustainable Internship and Hands-on Job Training Programs

Role of the PSM in the Future of Research and Development

Economic Challenges and the PSM

PSMs: Innovations and Opportunity in Education

Best Practices in the PSM Development and Developing Partnerships

Best Practices for Internships and Professional Mentoring



NPSMA Members \$325
Non Members \$425
PSM Students \$75

Earlybird prices until September 7, 2012.

Register before October 7, 2012 at:

<https://npsma.memberclicks.net/upcoming-national-conferences>

NPSMA Regional Workshop
Held March 2012 in Tampa Florida
“Preparing Graduates for Challenging and Rewarding Careers in the Biotechnology Industry”

This NPSMA spring workshop enjoyed solid attendance at a great location right on University of South Florida’s campus providing the perfect backdrop for visitors from industry, government and academia. The keynote speaker, R.E. LeMon, Associate Vice Chancellor of the Florida Board of Governors,



Photo: R.E. LeMon, Florida Board of Governors

focused on the interface between graduate education and the new economy, providing an excellent overview of the economic and political environment of Florida, and giving the workshop an engaging and thought provoking start for further valuable discussions.

Topics covered best practices such as starting new programs and sharing plus courses and provided useful information on how to conduct team projects in collaboration with industry.

The panel discussion with industry representatives, career counselors, and program directors helped provide ideas on how to build corporate relations in the biotech industry. As usual, the employer/alumni panel received great feedback. Many participants felt that the employers made this discussion special by giving direct insight in how corporations seek employees, nurture them once hired, and why they found PSM graduates especially valuable.



Photo: Paul Hamilton, University of North Carolina

NPSMA would like to thank Magellan Bioscience, Biovest International, and the PSM Bioinformatics & Biotechnology Program at USF, who sponsored the workshop, with special thanks to Dr. Inge Wefes who oversaw the logistics and organization of this workshop.



Participants suggested the following topics for future events and we will make sure to include some of these requests in our upcoming workshops:

sustainability of programs, internships, faculty roles vs. role of industry, online programs, industry case studies, student recruitment, non-traditional students, where/how to find funds, managing PSM programs online, leveraging LinkedIn and Facebook.

PSM Program News

This newsletter serves as a venue for universities to make program announcements and attract national visibility. To receive full benefits and best practices advice for new programs, we encourage all non-member institutions to join the NPSMA.

Rice University Working With NASA to Train Next Generation of Aerospace Professionals

By Dagmar Beck, PSM Program Director, Rice University and NPSMA Immediate Past President



Rice University's Faculty Senate approved a space studies master's track as one of five Professional Master's Programs at the Wiess School of Natural Sciences.

The track creates new options for engineering and science students interested in space technology and related government entities, including NASA, and government relations positions in nonprofit organizations, industry and academic institutions. There is a critical need for qualified professionals interested in the new paradigm for space exploration and utilization, at NASA Johnson Space Center. The aerospace industry is focused on translating space technologies to other areas such as energy and medicine, putting new emphasis on research and development. NASA, which signed a Space Act Agreement with Rice, is working closely with universities and entrepreneurs. The track includes advanced engineering, biological and physical science classes and introduces students to economics, public policy and management disciplines. The program is a collaboration between Natural Science and Engineering. David Alexander, director of the Rice Space Institute and professor in physics and astronomy, and Andrew Meade, professor and chair of the Department of Mechanical Engineering and Materials Science, helped develop the new track and will join the oversight faculty committee.

"It's a way of broadening awareness of space-related activities within campus and the reputation we have for space science outside campus," Alexander said. The degree requires 40 credit hours and an internship to complete. Applications for fall 2012 are being accepted. For more information, visit www.profms.rice.edu or contact the program at profms@rice.edu.

New PSM Programs and Courses Offered At Oregon State University

By Ursula Bechert, Director of Off-Campus Programs, College of Science, Oregon State University



An academic proposal for a new PSM in Fisheries and Wildlife Administration was approved in 2011, and the first cohort of students is expected to start this fall. This program was developed in response to needs expressed by the Oregon Department of Fish and Wildlife and is fully available online. The program provides holistic training of personnel and future managers in fisheries and wildlife and includes policy and human dimension as well as business management coursework. Learn more about the program at <http://psm.science.oregonstate.edu/fisheries-and-wildlife-administration>.

An academic proposal for a new joint PSM in Renewable Energy is in review, and the first cohort of students is expected to start fall term 2013. Areas of concentration will initially be offered in photovoltaics (solar) and bioenergy at Oregon State University. Portland State University will eventually offer an area of concentration in materials and devices for renewable energy, and the Oregon Institute of Technology will offer an area of concentration in geothermal energy. Support for program development at Oregon State University comes from a \$40 million grant received by a consortium of Northwest universities and businesses to further develop biofuels as part of the region's renewable energy industry. ZeaChem, Greenwood Resources, the University of Washington, OSU, Washington State University, Evergreen State College, Walla Walla Community College, and the University of California at Davis are key regional partners. Oregon State University will be receiving \$5.4 million for research and \$4.4 million to develop a bioenergy education program. The educational program will target pre-college, undergraduate, and graduate-level (PSM) students.

The professional component of Oregon State University's PSM programs has been packaged as a Graduate Certificate Program in Management for Science Professionals and is available online. The program includes three sequential business classes that cover topics in accounting, project management, marketing and innovation, and culminate in a term project requiring students to write their own business plans for a new product or service. Other classes include communication, research ethics, and professional skills where students work on an industry-sponsored project and learn about team and leadership skills. The graduate certificate is available online for 18 quarter credits (<http://psm.science.oregonstate.edu/graduate-certificate>).

Elective options for the professional component of Oregon State University's PSM programs are being developed. Advanced Scientific and Technical Writing combines scientific and technical writing with science journalism, and the class is currently offered online. Students draw on a data set (preferably their own) to draft a scientific journal article, short grant proposal, magazine article, and letter of inquiry. They also critically evaluate and edit documents by reviewing classmates' drafts. Mastering the International Work Environment is currently in development. The course will provide preparatory training for overseas experiences at the graduate level to help students convey ideas, make decisions, and develop consensus across cultural and international boundaries. Students will learn how to balance work objectives with cultural adjustments and enhance group productivity through use of key technologies and methods for collaboration with remote project participants. To learn more about Oregon State University's PSM programs and courses, visit <http://psm.science.oregonstate.edu>.

News from the SUNY PSM Consortium

By David King, NPSMA Board Member and Dean of Graduate Studies, State University of New York, Oswego

The State University of New York (SUNY) PSM Consortium of 18 campuses met for their biannual meeting at a two day event on April 26 and 27 at SUNY System Administration in Albany, NY. The meeting was chaired by SUNY PSM Director Dr. David King and convened over 30 representatives from each of the participating SUNY campuses, as well as numerous leaders involved in the SUNY PSM initiative. Among the presenters were SUNY Provost David Lavallee, National Professional Science Master's Association President Bogdan Vernescu, Council of Graduate Schools National PSM Director Carol Lynch, and Keck Graduate Institute Vice President for Academic Affairs and KGI PSM Liaison Jim Sterling. Provost David Lavallee discussed the role of the PSM Consortium in advancing SUNY's goal to build partnerships between the university and New York businesses to advance economic and workforce development.



Susan Lawton, Jim Sterling, Bogdan Vernescu, David King, Carol Lynch

Carol Lynch, PSM Director at the Council of Graduate Schools focused on the growth of the PSM movement with more than 250 programs at more than 100 universities, and the transition process for registering PSM degrees. Jim Sterling spoke about the role of the new PSM office at KGI to assume responsibility for the PSM affiliation process and administration of the sciencemasters.com website. Bogdan Vernescu, President of the National Professional Science Master's Association, presented the role of the association in providing services to the PSM community including professional development and national leadership.

Also speaking at the conference was Martin Babinec, founder of the venture capitalist firm Upstate Venture Connect, and Tom Moebus, the Interim Director of the SUNY Levin Institute. One of the primary topics of discussion was Mr. Babinec's proposal to place SUNY PSM students in start-ups across Upstate New York either in internships or co-op positions. With a growing emphasis on entrepreneurship, New York is fertile ground for PSM students to gain essential hands-on experience in a unique start-up

environment that mirrors the distinctive nature of the PSM program itself. Both Martin Babinec and Tom Moebus, discussed numerous opportunities for PSM involvement in the start-up business field, including a potential collaboration with the Levin Institute's Innovate New York initiative, a potential infusion of the PSM with the SUNY Entrepreneurial Century mandate, and potential collaborations with Upstate Venture Connect. Susan Lawton, Director of the UMass PSM Consortium addressed the value of system coordination and collaboration.



Tom Moebus, SUNY Levin Institute



Martin Babinec, Upstate Venture Connect

Another major focus of discussion was on the development and sharing of specialized PLUS courses across the SUNY system. SUNY System Administration will be implementing a new Credit Transfer and Tuition Reconciliation plan this summer, which will greatly facilitate increased transferability of credits between SUNY campuses. This will create a seamless transition for students seeking to take courses (online or otherwise) at another institution while still maintaining enrollment at the primary institution. For the SUNY PSM Consortium, this new policy will make the sharing of specialized online PLUS courses far more effective and efficient, and will largely increase systemness by building a cohesive and collaborative environment. Also discussed at the meeting was another RFP to fund online PSM curriculum development with assistance from SUNY's grant from the Alfred P. Sloan Foundation.

CAMEL (Climate, Adaptation, Mitigation, E Learning)

By Virginia Brown, Project Director, CAMEL, National Council for Science and the Environment

CAMEL (Climate, Adaptation, Mitigation, E-Learning) is a free, comprehensive, interdisciplinary, multi-media online resource for educators to enable effective teaching about climate change and allow them to create and share curricular resources. CAMEL was created by the National Council for Science and the Environment (NCSE) and its Council of Environmental Deans and Directors (CEDD) and is funded by the National Science Foundation (NSF) to create a learning community for solutions to climate change. CAMEL's extensive, interdisciplinary taxonomy reflects the complexity of climate change. Topics related to causes, consequences, solutions and actions are included. Its web-based infrastructure includes tools to allow a growing community of educators and students to network, share and evaluate approaches and materials, and to host courses.

NCSE received supplemental funding from NSF to enable CAMEL to work with the American Indian Higher Education Consortium (AIHEC) to connect tribal colleges and universities (TCUs) to the climate change education community and to incorporate Traditional Ecological Knowledge (TEK) and American Indian cultural perspectives into climate change education. The result will be enhanced climate learning at a wide range of colleges and universities, involving cross-institutional and multidisciplinary teams to develop culturally-appropriate curricular resources.

Join the community of climate change educators at: www.camelclimatechange.org.

NPSMA Welcomes Four New Board Members

- Joaquin Carbonara**, Professor of Mathematics, Buffalo State College.
- Patricia Komuniecki**, Dean, College of Graduate Studies and Vice Provost, Graduate Affairs, University of Toledo.
- Deborah Silver**, Executive Director, Professional Science Master's Program and Professor I, Department of Electrical and Computer Engineering, Rutgers, The State University of New Jersey.
- Inge Wefes**, Director of PSM Programs, College of Medicine, University of South Florida.

Thank you to the following Board Members whose terms have recently ended: Elizabeth Ambos, Cliff Chancey, and Susan Stites-Doe.

Reminder

The NPSMA Job Board is a great resource for those who are seeking employment as well as employers who want to hire qualified employees. The PSM Career Center is located under the Services tab at www.npsma.org.

Alum Testimonial

John Nangle
The University of Arizona, 2008
PSM Mathematical Sciences
Occupation: Senior Engineer - National Renewable Energy Laboratory



“The PSM program at the University of Arizona provided me with the opportunity to really ground my knowledge of mathematics and business. Not only did I write a thesis in applied mathematics, but the PSM program had an option to attend the McGuire Center for Entrepreneurship. The McGuire program augmented the required business classes and gave me the opportunity to write and present a business plan to venture capitalists from around the country.

After finishing my PSM, I found the job I wanted working at the National Renewable Energy Laboratory as an engineer in the Integrated Applications Center. My center is focused on project deployment, and ‘getting steel in the ground’. Not only do we need to understand the proper applications of the technologies, but we need to understand the different types of Federal and private sector business models that can be used to acquire a renewable energy system.

I feel that the PSM serves me very well in that I am able to work with the scientists and engineers involved in technology research as well as Federal procurement officers and business analysts, and partners in the private sector.”

NPSMA Alumni Connection

By Michael Morad, Quality Assurance Manager, Abbott Vascular, Structural Heart Division and NPSMA Board Member

The NPSMA is continuing to work on establishing an Ambassador Program that will train and assist students and alumni to begin local PSM Chapters at their universities. These local PSM Chapters will link to the NPSMA and expand our network of professionals and experts in our industries. The local PSM Chapters will offer students and alumni networking events, continuing education opportunities, mentoring, career growth counseling and an opportunity to share their successes and challenges with the NPSMA so we can continually improve PSM programs and drive the PSM movement forward. The NPSMA will pilot this new program this summer and may solicit your university to participate. Keep a lookout for an invitation in upcoming weeks.



NPSMA Executive Committee and Staff

- President: Bogdan Vernescu (Worcester Polytechnic Institute)
 Vice President: Jean Schaake (University of North Texas)
 Convener: Ching-Hua Wang (California State University at Channel Islands)
 Finance Officer: Cynthia Bainton (Northeastern University)
 Director of Strategic Planning and External Projects: Donald N. Langenberg (Chancellor Emeritus, University System of Maryland)
 Coordinator: Debra Warren-Hite

Newsletter

- Editors: Cynthia Bainton, Deborah Riel
 Layout: Debra Warren-Hite
- Send newsletter submissions to admin@npsma.org.



Membership

(The NPSMA is a 501(c)(3) Nonprofit Organization; Tax ID # 20-8766099)

Please Check One:

New Renewal

- Academic Institution (1 non-voting membership per PSM program) \$2,000
- Academic System (min. of 6 campuses/institutions; 1 full membership per campus/institution) contact NPSMA for rates
- Individual \$ 75
- PSM Alum (if your institution is a member – 1 year FREE) \$ 75
- Student (if your institution is a member – 1 year FREE; 2nd year \$25) \$ 50

Please make payments to the National Professional Science Master’s Association.
Mail form with check to: NPSMA, 100 Institute Road, Worcester, MA 01609.
To pay online, go to www.npsma.org. Thank you for your membership!

Please Provide Information Below

Name and Title of Individual Member (include contact information for institutional and system membership).

Program _____

Academic Institution _____

University System (if applicable) _____

Email _____

Phone _____

Address _____

City, State/Province, Zip/Postal Code _____