



SMI CONNECTIONS



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Directors' Corner In two short years, SMI tripled the enrollment in its introductory course, EDUC 3 (*Imagining Teaching: Science/Mathematics Emphasis*). During this 2007-08 academic year, a combined 85 students were enrolled in EDUC 3 and EDUC 4 (*Looking in the Classroom: Science/Mathematics Emphasis*). Based on end-of-the-quarter class surveys, 89% of the students responded positively to the weekly seminar and field assignments. In addition, nearly 95% of the students agreed/strongly agreed that EDUC 3 and EDUC 4 effectively facilitated their exploration of science/mathematics teaching as a career. In response to the increased interest in these courses, both courses will be offered multiple times in the 2008-09 academic year to provide smaller and more intimate opportunities for interested students. Within this issue of *SMI Connections* you can learn more about the future course offering.

SMI is committed to promote excellence in teaching. This issue of the newsletter highlights several FREE summer training institutes for SMI students and mentor teachers to consider. With the end of the academic year quickly approaching, we encourage you to engage in these unique professional development opportunities to expand your pedagogical horizons.

As we look ahead to the 2008-09 academic year, SMI will continue to broaden its services and strengthen its professional partnerships both on-and-off campus. SMI will continue to create multiple pathways for STEM majors to effectively prepare for a career in teaching science or mathematics.

~Bradley C. Hyman & Leslie Y. Bushong



Spotlight on...ALEXIA OLSON



As a high school senior, Alexia Olson began her academic career at UCR in Fall 2003 as a part-time student. At the end of Winter 2008, she earned a Bachelor of Science degree in Mathematics. Alexia's academic success was evident in her early admission to UCR's Graduate School of Education's Integrated Intern Teaching Credential and Master's in Education programs for Spring 2008. In addition to her academic excellence, she is the president of UCR's student organization, Tomorrow's Teachers in Science and Math (TTSM). Alexia's academic and leadership achievements directly led to recently being awarded the prestigious and highly competitive Mathematics Teaching Fellowship from the Knowles Science Teaching Foundation. The fellowship provides substantial support to science and mathematics teacher candidates during their training for, and transition into, the classroom. Alexia's fellowship will provide her a local mentor, instructional materials, ability to attend professional development conferences, and other benefits.



Alexia Olson,
 2008-09 Knowles
 Mathematics Teaching
 Fellowship Recipient

Alexia's words of advice... "The most important thing in deciding if teaching is the career for you is to get as many experiences in the classroom as possible (volunteer or paid). If you decide that teaching is something you want to do, hang in there! The road to becoming a teacher is long and bumpy, but well worth it. Being a teacher is becoming the mentor and role model that so many students need. The possibility of making a difference in each student's life is what makes the teaching profession so special. I have had my fair share of rejection, but so many other (better) opportunities were waiting. Take advantage of these opportunities and put the most into them. This is where you will develop the professional relationships that will help you to get into graduate school or will aid in your hiring process."

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Summer Institute Opportunities

Opportunities	For SMI Students	For Credentialed Teachers	Stipend Awards	DATES	Application Deadlines
SMI Summer Institute - Scientific Teaching	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	\$500	6/16/08-6/18/08	5/2/08
Mathematics Academy for Teaching Excellence (MATE)	CMST participants	<input checked="" type="checkbox"/>	Pending	6/23/08-6/27/08	5/1/08
Shelter Instruction Observation Protocol Institute (SIOP)	Selected by SMI Directors	<input checked="" type="checkbox"/>	\$250 (SMI students); \$500 (credentialed teachers)	6/23/08-6/27/08	6/1/08
Earth Science Institute	Selected by SMI Directors	<input checked="" type="checkbox"/>	\$250 (SMI students); \$500 (credentialed teachers)	7/7/08-7/11/08	6/1/08
Science QUEST	CMST participants	<input checked="" type="checkbox"/>	Pending	7/14/08-7/18/08	5/1/08
Summer Business Internships	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Up to \$4,000	6/1/08-9/30/08	Open until Filled

SMI Summer Institute—Scientific Teaching Based on a new teaching philosophy modeled in *Scientific Teaching* (Handelsman 2007), the summer institute participants will examine principles and practices of "scientific teaching" including backward design and active learning presented by Dr. Bradley Hyman.

Mathematics Academy for Teaching Excellence The ALPHA Center designed the MATE training program to expand mathematics content and pedagogy for credentialed teachers. Teachers are exposed to content-rich interactive classroom ideas along with a professional library of resource materials.

Shelter Instruction Observation Protocol Institute (SIOP) The Inland Area Science Project-Teacher Retention Initiative (IASP-TRI) offers this intensive program for K-12 and selected SMI science students who want to expand their strategies to teach science content to English Language Learners.

Earth Science Institute The Inland Area Science Project-Teacher Retention Initiative (IASP-TRI) designed this training program for middle school teachers and selected SMI science students to help reinforce the teaching of earth science standards in middle school.

Summer QUEST The ALPHA Center developed this summer academy for 4th through 12th grade teachers to improve student achievement in mathematics and science. To achieve this purpose, the program fosters an integrated approach to teaching science with emphasis on current science topics using a hands-on approach.

Summer Business Internships The Beckman-Coulter Foundation and the Copernicus Project will offer business internships to allow participants to learn about the business side of science and technology. This powerful knowledge can enhance current and future teachers' ability to create and develop engaging lessons that promote student success.

FOR MORE INFORMATION ABOUT ANY OF THESE SUMMER INSTITUTES, PLEASE VISIT

<http://smi.ucr.edu/workshops/summerinstitutes.html>

LOOKING AHEAD...

STUDENT REFLECTIONS — CONSIDER EDUC 3 AND 4

Due to the increased enrollment in EDUC 3 and EDUC 4, both courses will be offered multiple times during the 2008-09 academic year. Currently, both courses are expected to be offered in Fall 2008 and Winter 2009. Below are some reflections from former EDUC 3 and 4 students .

"I thoroughly enjoyed the challenge and the experience...it was a safe situation to try and implement the concepts I had been learning in class."

~Kayla Bui (Mathematics—Freshman)

"By completing EDUC 3, I learned the [California State] standards in depth...Also, I learned [about] the key components of...an effective lesson plan."

~Angela Bruno (Biochemistry-Sophomore)

"I prepared a lesson on Phylogenetic trees, and then ran a project for the students to practice creating one. At the beginning of the quarter, I was nervous and was not sure that I would want to give a lesson...[eventually] I felt ready [and] the opportunity presented itself. The students...were excited about the project...I enjoyed giving the lesson and answering the students' questions. The teacher gave me positive feedback."

~Andrea Maisey (Neuroscience-Senior)

"You can have a great understanding of your field, but that doesn't mean the students will learn anything unless you can also manage your classroom."

~Devon Ruff (Mathematics-Junior)

"The teachers in California have many factors and influences to deal with on a daily basis. By sticking to the standards while making sure the students learn all that they should...it is definitely not easy. "

~Reginald Ungos (Mathematics-Freshman)

"[I learned about] the technology available in the classroom today."

~Kelly Lai (Biology-Senior)

"I learned that being a teacher is not an easy job...the teacher [also] has to be motivated in order to keep the class involved."

~John Nguyen (Biology-Sophomore)

INTEGRATED TEACHING PROGRAM at UCR

UCR's Integrated Science and Mathematics Program is an intensive track for students who take education and Science, Technology, Engineering, Mathematics (STEM) degree courses as undergraduates. Ultimately, the students are able to earn their Bachelor's STEM degree while also preparing for admissions to UCR's teaching credential program. Public school field experiences are combined with coursework, and paid fellowships are available.

—How does the program work?—

Integrated Teaching candidates:

- Complete lower-division courses that introduce students to the field of teaching.
- Complete early field experiences that expose students to teaching.
- Complete a sequence of education courses while satisfying requirements for a STEM major curriculum.
- Blend "how to teach" with "how to do science and/or mathematics."
- Begin UCR Teaching Credential Program during spring quarter of senior year.

Congratulations to those admitted to the Integrated Teaching Program for Spring 2008

Angelica Ayala	Todd Johnsen	Ramona Martinez	Kimberly Raffanti
Yesenia Casillas	Kelly Lai	Sarah Nosce	Julie Ruegge
Melinda Curtiss	Yasmin Maleque	Alexia Olson	Monica Smith
			Jennifer Su

To learn more about UCR's Integrated Teaching Program, please contact the SMI Resource Center.

Scholarship and Apprenticeship Opportunities

- **Teacher Apprenticeship Programs:** Juniors and seniors, apply to California Mathematics & Science Teachers Initiative (CMST) . For more information, please visit www.alphacenter.ucr.edu. *Deadline: April 25 2008*
- **Assumption Program of Loans for Education (APLE):** The APLE program is a competitive teacher incentive program designed to encourage outstanding students, district interns, and out-of-state teachers to become California teachers in subject areas where a critical shortage has been identified, often in designated schools meeting specific criteria established by the Superintendent of Public Instruction. Under the APLE program, college students may qualify for up to \$19,000 of student loan forgiveness from the California Student Aid Commission (CSAC). Visit <http://www.csac.ca.gov> for more information.
- **National Council of Teachers of Mathematics (NCTM):** The purpose of this grant is to provide financial support to college students preparing for teaching secondary school mathematics. For 2008-09, up to two scholarships, with a maximum value of \$10,000 each, will be awarded. Eligible students are currently completing their sophomore year of college and scheduled for full-time study at a four- or five-year institution in the next academic year and pursuing a career goal of becoming a certificated teacher of secondary mathematics. Please contact Alicia Chavez, UCR Scholarship Coordinator, at alicia.chavez@ucr.edu, to help you prepare a strong and competitive application packet. Application deadline is May 9, 2008

SMI ACHIEVEMENTS IN 2007-08

- ☑ Created an expansive resource library.
- ☑ Awarded over \$73K in stipends and reimbursements to promote STEM students' pre-teaching successes.
- ☑ Tripled its EDUC 3 enrollment from 2 years ago.
- ☑ Established on-and-off campus partnerships to offers CSET preparatory courses.
- ☑ Provided networking opportunities - invited 15 education specialists as panelists to NASC 192.
- ☑ Expanded summer training opportunities for SMI students.
- ☑ Submitted grant proposals (pending) to Federal Government Agencies.

Science and Mathematics Mentor Teacher/Coach Certification Program will be offered through UCR Extension beginning Spring 2008. Through a collaborative effort between SMI and the Inland Area Science Project (IASP), this program will develop leadership skills for coaching colleagues and create collaborative school learning environments. This program is open to fully credentialed secondary-level science and mathematics teachers. Some highlights of coursework include: coaching models, developing curriculum units, developing organizational and project management skills, implementing technology to analyze student learning, and enhancing a professional portfolio. To learn more, or to enroll for this program, please visit

http://www.extension.ucr.edu/certificates/science-math_mentorship/index.html.

RESEARCH SERVICES

- **SMI Resource Center Conference Room:** Pierce 1104 is a friendly, internet-ready room for prospective teachers to study and gather in small groups, such as for review sessions.
- **Participate in SMI Exam Reimbursement Program:** SMI students may apply for expense reimbursement related to CBEST and CSET exam preparation and registrations at the SMI Resource Center.
- **Update Your Resume:** Contact the experts at the UCR Career Center, (951) 827-3631, for further assistance.
- **Quarterly SMI Advising:** Stay on track. Plan ahead. Schedule your one-on-one SMI advising appointment by e-mailing smi@ucr.edu.
- **Subscribe to SMI Listserv:** Receive up-to-date information to prepare for your future career in teaching. Log on to: <http://lists.ucr.edu/mailman/listinfo/cateach-smi>.