A Word From the Director

By Dr. Penny Rheingans

It’s been a busy semester here in CWIT as we continue old traditions (Bits & Bytes, CWIT Showcase, Spring into Leadership) and try new things (USA Science and Engineering Festival, Let’s Get Techy). There’s too much going on to capture here in the Update, but this will give you a taste of what our community is up to.

Graduation season is upon us. Next week, I’ll get to watch eleven CWIT and SITE Scholars collect their diplomas: Priyanka Bushana (IS), Kevin Roberts (IS), Amy Ciavolino (CMSC), Rachel Davies (CBE), Kristen Dagenais (CBE), Katelyn Williams (CBE), Terrence Dickerson (CBE), Chesska O’Neal (ME), Andrea Robinson (CMPE), Tim Burke (CMSC), and Bryant Szelis-towski (CMPE). I can’t wait to see what this group does next!

We’ve finished selecting our C11 cohort of CWIT Scholars who will begin in the fall. This highly accomplished group of fourteen is Bhuvana Bellala (Mount Hebron HS), Amanda Borowy (Baltimore Catholic HS), Mark Cirincione (James Hubert Blake HS), Nicole Dawson (Hammond HS), Celia Drew (Mount Saint Dominic Academy), Shannon Donelan (Northeast Senior HS), Beatrice Garcia (Governor Thomas Johnson HS), Katherine Geisler (Middletown HS), Alicia Goldstein (home schooled), Holly Johnson (Governor Thomas Johnson HS), Samantha McDonald (Holly Point HS), John Swank (Paterson Mill HS), and Haley Sweeton (Reservoir HS).

We’re excited that they’ve chosen CWIT and UMBC and doubly excited that they will all be joining the CWIT Living Learning Community.

Penny Rheingans Receives Award for Mentoring

Congratulations to CWIT Director and Professor of Computer Science, Dr. Penny Rheingans, the recipient of one of this year’s University System of Maryland (USM) Regents’ Faculty Awards for Mentoring. Awarded to no more than four USM professors each year, the USM Regents’ Faculty Award for Mentoring is regarded as the Board’s highest honor to recognize outstanding faculty achievement. Read more here: http://goo.gl/SjU1o
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Dr. Taryn Bayles (Department of Chemical, Biological Engineering) assigned a faculty mentor in their major and participated in peer and industry mentoring just like the SITE Scholars. In addition, T. R. (SITE) 2011, Methzli Rodriguez (SITE ‘11), Michael Rahimi (C6), Andrea Robinson (C6) Chemical Engineering Internship with Walter Reed GEMS Program; Internship with General Electric.

Kristen Dagenais (CIT Scholar) Chemical Engineering Internship with UMBC’s Technology Support Center; Completed on-campus research with Dr. Gymama Slaughter in the Bioelectronics Lab.

Alex Markowski (C7) Computer Science Internship with Johns Hopkins University; Interned with Harris Corporation. “I really appreciated the support that CWIT offered me—during my four years at UMBC, I always knew that I had a safe place where my ideas would be taken seriously, and my interests could grow safely.”

Lauren Anthony (C4) is moving to Denver, CO this summer for her position as a consultant with Microsoft.

Lindsay Beaubien (C3) recently changed jobs and is now a Cyber Database Architect with Northrop Grumman.

Krishna Sheth (C6) graduated from UMBC with her Masters in Information Systems in December 2011 and has recently started working full time as a Consultant at Booz Allen Hamilton.

Some of the ways CWIT & SITE Alumni have been involved in the CWIT Community over the past year include:

- Served as Industry Mentors for a junior or senior Scholar
- Meeting the new CWIT Scholars at the CWIT Retreat in August 2011
- Attended and spoke at the 10th Anniversary Scholars Reception in October 2011
- Attended CWIT Women in Technology Series events as industry representatives
- Served on a panel, as waiting room hosts, or interviewers for Scholar Selection Day in March 2012
- Attended the End of Year Picnic in May 2012
- Donated money directly to CWIT through the UMBC Alumni Giving web site: www.umbc.edu/giving/give/
- Stayed in touch via the CWIT @ UMBC Alumni Facebook group.

The first cohort of T-SITE Scholars from Maryland community colleges were selected in early May and will begin their studies at UMBC in fall 2012. This project leverages the CWIT program model and existing infrastructure to provide T-SITE Scholars with academic and professional support to be retained through graduation in engineering or IT major. The T-SITE Scholars will participate in the annual New Scholar Retreat in August and engage in a weekly seminar specifically designed to address the transition issues faced by transfer students in engineering and IT majors. In addition, T-SITE Scholars will be assigned a faculty mentor in their major and participate in peer and industry mentoring just like the CWIT Scholars. The T-SITE faculty mentors are: Dr. Taryn Bayles (Department of Chemical, Biochemical, and Environmental Engineering), Dr. Marie desJardins (Department of Computer Science and Electrical Engineering), Dr. Carolyn Seaman (Department of Information Systems), Dr. Gymama Slaughter (Department of Computer Science and Electrical Engineering), and Dr. Anne Spence (Department of Mechanical Engineering). Dr. Penny Rheingans, CWIT Director, is the Principal Investigator for the T-SITE project. For more information about the T-SITE grant and project team you can visit: http://goo.gl/qXTSG.

The CWIT Living Learning Community (LLC) has been active this year in promoting activities that support women in technology majors and encouraging positive academic habits. To learn more about what the CWIT LLC has been up to this year, and plans for next year, visit: www.cwit.umbc.edu/living/
Bits & Bytes

In an effort to encourage more talented young women to enter the IT and engineering fields, CWIT hosted 28 high school junior girls for this overnight event, sponsored by Northrop Grumman. These high-achieving young students had opportunity to stay overnight in the CWIT LLC, compete in a design challenge, attend a college class, and learn more about what life is like as a college student. The program was entirely student-run by a student committee and volunteers. Read more: http://goo.gl/dT9ye

"The competition... made me more confident about aspects of the engineering field and my future potential. This program also made me able to visualize myself as an actual college student... the UMBC students were approachable and real with us." - Bits & Bytes Participant

2nd Annual Spring into Leadership Event: "What's Your Story?"

This event was hosted on April 4, 2012 as a collaboration between the CWIT Affiliates Program, the CWIT Student Council, SWE, ASME, ISCOM and WISE Grads. Students in attendance were matched with industry professionals as conversation partners for the first part of the evening, which was followed by a keynote speaker and activity which demonstrated the importance of diversity in the workplace. Read more of Emily Scheerer’s (C9) article on the event in UMBC’s Retriever Weekly: http://goo.gl/Tc4Fc

"I learned] that there are many others (female STEM) like me and that those in industry are very supportive!" - Spring into Leadership participant, written on the evaluation

Spring Event Highlights

CWIT Showcase

Nine CWIT Scholars presented at this second-annual event that brought students in the CWIT Community together to share some of their meaningful out-of-the-classroom experiences. Presentation topics ranged from internships, research, and professional development. Read more of Emily Scheerer's (C9) article on the event in UMBC's Retriever Weekly: http://goo.gl/Tc4Fc

CWIT Student Council

This year the Student Council’s goal was to collaborate more with other technical organizations on events. With this approach and our community’s participation, we were able to host a lot of great events. In early September, we hosted the third annual C-What? Day, which was conveniently scheduled right after the CWIT Affiliates Retreat. Then in October, we co-sponsored with ISCOM on a new event called, Major Decisions, designed to help underclassmen students understand the majors offered by the COEIT. Also in collaboration with ISCOM, we held our second Holiday Party in December and saw a lot of new faces. This Spring semester, we collaborated with ASME, SWE, and ISCOM, to host an outreach project called Let’s Get Techy! for over 100 middle school students encouraging them to explore technical subjects. This event was made possible by a $3000 ASME Diversity Action Grant that the collaborating organizations applied for in late Fall 2012. The course will be required for all first-year members on the CWIT Living Learning Community and first-year CWIT Scholars. Contact kglasser@umbc.edu with any questions.

Student Organizations Update

Society of Women Engineers (SWE)

UMBC SWE has been really busy with engineering outreach events! We participated in JHU APL’s Girl Power for the second year in a row, bringing back our Bernoulli’s Principle demonstrations for hundreds of middle and high school aged girls. We also co-hosted a new event, Let’s Get Techy!, an event that brings middle school students to campus for a day to see what college is like and do fun hands-on engineering and IT activities. This event was held twice and funded by the ASME Diversity Action Grant which SWE, ASME, ISCOM, and CWIT SC applied for in Fall 2011. We hope to hold this event again! Other outreach successes include helping with the UMBC booth at the USA Science and Engineering Festival and co-hosting the second annual Spring into Leadership event, a dynamic community and network building event with a great keynote speaker and networking activities. SWE also hosted its first social event, tie-dying t-shirts, and its first professional event, a tour of the WR Grace plant co-hosted with AICEH.

CWIT Pilots a First Year Success Seminar

Last fall, CWIT piloted a first-year success course for the seven freshman CWIT Scholars, taught by Katie Glasser, CWIT Assistant Director. The discussion-based course covered important first-year transition issues, such as study skills and time management, included a introduction to professional development, encouraged major & career exploration, and much more. Older CWIT Scholars developed lesson plans and taught some of the workshops. The pilot course was highly successful, and CWIT has collaborated with the Office of Undergraduate Education to make this course, a one-credit FYE101 section that will be attached to a Math course in Fall 2012. The course will be required for all first-year members on the CWIT Living Learning Community and first-year CWIT Scholars. Contact kglasser@umbc.edu with any questions.

Announcing our new officers for the 2012-2013 Academic Year... President: Shreya Mohan (C8, IS) Co-Vice President of Student Events: Alex Kurekowski (C7, CS) Co-Vice President of Student Events: Tylwyn Pettrey (C10, CBEE) Treasurer: Chitra Gadwal (CWIT Affiliate, CS) Secretary: Courtney Melissari (C9, IS) Historian: Katrina Chan (C9, CS) LLC Resident Assistant: Heidi Gray (CWIT Affiliate, CS)
Many of the statements began with “I am proud of…

Courtney Melissari (C9) for getting an internship in the research park!

Alec Pulianas (C9) for starting his own radio show, the Prog Rock Block.

Alec Pulianas (C9) and Emily Scheerer (C9) being TAs next semester for Penny’s new class!

Tyllynn Pettry (C10) for becoming Vice President of the CWIT Student Council.

Clayonna Wheat (C10) for being elected secretary of the CWIT Student Council.

Courtney Melissari (C9) for being selected for a Teaching Assistant in Erickson Hall next year!

Shelby Coppolino (Affiliate) for being a Teaching Assistant for conducting research this semester and for making her hard to get CWIT, the UMBC student body, and her hard work with SWE and her initiative to reach out to kids in the community. She is really working to fulfill the goals of the CWIT Scholarship program.

I am really proud of all the work that Tiffany Ernst (C10) has done for the Prog Rock Block.

Much thanks to a wonderful experience with the 2012 Spring Into Leadership Committee: Vanessa Aguinot (ASME), Tabitha Havercamp (ISCOM), Savita Moses (ISCOM), Chitra Gadwal (CWIT SC), Debra Girma (WISE Grads), Shirley Clarke and Lily Johnson (C8, SWE).

To CWIT’s fearless Scholars that took the time to present at the 2012 CWIT Showcase and opened the doors of opportunity for others in the CWIT community: Samantha Celmer (C8), Amy Ciavolino (C8), Jessica Izumi (C9), Lily Johnson (C8), Morgan Madeira (C8), Shreya Mohan (C8), Alec Pulianas (C9), Rachel Sweeten (C8) and Emily Scheerer (C9).”

Sabrina McConoughey (C9) was elected President of the National Society of Collegiate Scholars (NSCS) for next year.

Alec Pulianas (C9) was accepted to present a poster about his “Access MT” research at the 2012 Grace Hopper Celebration of Women in Computing Convention in Baltimore, MD.

Emily Scheerer (C9) was a writer for UMBC’s Retriever Weekly this year and has been chosen to be an Editor next year.

### Bragging Rights: Scholars’ Awards & Accomplishments

**CWIT Student Council**:

- **Samantha Celmer (C8)** for participating in an outreach project where she presented to high school students about engineering and was able to convince three students to consider engineering as a major when they hadn’t before.

- **Amy Ciavolino (C8)** for getting her student athlete of the year opportunity in Georgia next semester!

- **Shreya Mohan (C8)** for working with SWE and her initiative to reach out to kids in the community. She is really working to fulfill the goals of the CWIT Scholarship program.

- **Emily Scheerer (C8)** for being a Teaching Assistant for conducting research this semester and for receiving an internship with T. Rowe Price.

- **Clayonna Wheat (C10)** for becoming a Resident Assistant in Erickson Hall next year!

### Shout Outs!

**Samantha Celmer (C8)** for being elected secretary of the CWIT Student Council.

**Terrence Dickerson (SITE)** for being a Teaching Assistant for the UMBC Honors College Certificate.

**Teresa Johnson (C8)** for being a Teaching Assistant in Electrical Engineering.

**Emily Scheerer (C9)** for being a Teaching Assistant in Biology class this semester.

**Annette Englhart (C9)** for getting the Desk Manager position in Harbor!

**Courtney Melissari (C9)** for being elected secretary of the CWIT Student Council.

**Courtney Melissari (C9)** for getting an internship in the research park!

**Alec Pulianas (C9)** for starting his own radio show, the Prog Rock Block.

**Alec Pulianas (C9) and Emily Scheerer (C9)** being TAs next semester for Penny’s new class!

**Tyllynn Pettry (C10)** for becoming Vice President of the CWIT Student Council.

**Clayonna Wheat (C10)** for becoming a Resident Assistant in Erickson Hall next year!

**Shelby Coppolino (Affiliate)** for being selected for a Co-Op position in Georgia next semester!

“I am really proud of all the work that Tiffany Ernst (C10) has done for Relay for Life. She worked very hard to get CWIT, the UMBC student body, and her own friends involved, raised a lot of money, and stayed up all night at the event.”

“I have been really impressed by Lily Johnson’s (C8) work with SWE and her initiative to reach out to kids in the community. She is really working to fulfill the goals of the CWIT Scholarship program.”

“I admire Morgan Madeira’s (C8) dedication to school and her research. She works so hard.”

“Hearty thanks to the fabulous 2012 Bits & Bytes Star – Emily Scheerer (C9).”

“I am really proud of all the work that Tiffany Ernst (C10) has done for the Prog Rock Block.”

“Much thanks to a wonderful experience with the 2012 Spring Into Leadership Committee: Vanessa Aguinot (ASME), Tabitha Havercamp (ISCOM), Savita Moses (ISCOM), Chitra Gadwal (CWIT SC), Debra Girma (WISE Grads), Shirley Clarke and Lily Johnson (C8, SWE).”

“Thanks for Your Support!”

**By Dr. Susan Martin**

**CWIT Grant Activity**

**CWIT Staff Actively Collaborating on Computing Education Research**

Over the past year CWIT has strategically collaborated on a number of research proposals that are related to the education and retention of women in engineering and IT fields. Over the past year, four projects have been funded that will contribute to improving computer science education in Maryland. Two Google CS4HS grants and a CE21 Planning grant from the National Science Foundation (NSF) are focused on improving high school computer science education. In 2011 UMBC hosted its first three-day professional development workshop for high school teachers at UMBC. The 2012 workshop will be held on August 5-8th. More information is available at: http://maple.cs.umbc.edu/ cs4hs/.

In March of 2012, a CE21 Planning Grant was awarded by the NSF (CNS-1160624) to Dr. Marie desJardins (Principal Investigator), Dr. Marie desJardins, Dr. Susan Martin, and Dr. Carolyn Seaman (Department of Information Systems) were notified by NSF that the project, TUES: Transforming the Freshman Experience of Computing Majors, was also funded. This project synthesizes elements from first-year engineering courses, traditional introductory computing courses, the new Advanced Placement (AP) Computer Science Principles course to create an innovative freshman computing course for computing science and information systems majors. The course will utilize peer teaching fellows and peer mentors to deliver an overview of the discipline, build technical skills, provide a group design experience, and strengthen professional skills. One section of the course is being piloted and evaluated in the Fall of 2012 and two sections in Fall 2013. More information will be available about the project will be made available on the CE21-Maryland website later this summer.

**CWIT’s Spring Calendar**

**January:**
- 28th - Students volunteer with FIRST Lego League State Championships @ UMBC

**February:**
- 1st – CWIT Welcome Back Lunch & Cupcakes (open to everyone in COEIT)
- 6th – CWIT Family Meeting
- 15th – CWIT Affiliates Pizza Lunch
- 19th & 20th – Students volunteer with Bits & Bytes
- 27th – Freshman Cohort Meeting

**March:**
- 3rd – Scholar Selection Day
- 5th – Sophomore Cohort Mtg
- 12th – Junior Cohort Meeting
- 14th – CWIT Affiliates Pizza Lunch

**April:**
- 2nd – CWIT Pick Your Classes Meeting
- 4th – 2nd Annual Spring Into Leadership Event: What’s Your Story?
- 27th – CWIT Showcase
- 29th – SWE and CWIT students volunteer to host the UMBC booth at the USA Science and Engineering Festival in DC

**May:**
- 4th – CWIT & PWIT End of Year Picnic Fiesta!
- 14, 15, 16 & 17th – CWIT Study Breaks
- 21st - Undergraduate Commencement