We continue to get a little bit bigger (210 graduate students, plus 267 undergraduate CS majors, for a total of 477), and a little bit more famous every year.

Since the last newsletter, some of the more noteworthy events include the retirement of Dr. John Martin and the addition of two new faculty: Dr. Changhui Yan and Dr. Simone Ludwig. Dr. Yan joined us from Utah State University, Logan UT, in January of 2010. Dr. Ludwig arrived more recently from the University of Saskatchewan, Saskatoon, SB, Canada.

In response to industry feedback from both employers and Capstone participants, a year-long study of the undergraduate curriculum has been undertaken by a blue-ribbon committee chaired by Dr. Ken Magel. As a result of that work, a number of recommendations have been developed, and we have entered into the year-long process to make curriculum changes. In summary, we are adding some practical, applied, development skills and eliminating some of the theory required for the major. Among the more controversial ideas: eliminating CS 373: Assembly Language Programming.

As in past years, we are soliciting your opinions on the matter by means of an online survey that describes the curriculum change ideas, and gives you the opportunity to register your views.

The subject of the last survey was accreditation, and a small number of people expressed strong viewpoints in the survey. We also took the survey to the Job Fair last month and solicited opinions over a free breakfast. While most people seemed to think accreditation was not a big issue in Computer Science, those people who disagreed, did so most vehemently.

Please, take our new survey: cs.ndsu.edu/NDSUCS-Survey/
Students visit Microsoft

Microsoft’s Fargo campus hosted a spring workshop in April. The workshop focused on jobs and specifically job opportunities for women at Microsoft. A panel discussion was followed by a question and answer session. Tours of the technical support and development labs and user experience studio were given. Students participated in a series of informational interviews with Microsoft personnel and received information about internship and job opportunities.

New curriculum changes on horizon

The CS Department’s curriculum committee, headed by Dr. Ken Magel, met regularly during the spring semester to discuss the current structure to the undergraduate and graduate curriculum. Guided by an intense review of the computing curricula, a cooperative project of the Association for Computing Machinery (ACM), the Association for Information Systems (AIS) and the Computer Society (IEEE-CS), the group identified necessary components for each required course in the CS curriculum. In addition, a review of the body of knowledge area recommended by such computing curricula has shaped the content of current and new course offerings.

Each course currently required in the degree program and its content was discussed by faculty and recommendations for adjustments as well as new course development ideas were debated. At this time, no dramatic changes to the existing curriculum are expected. A few changes have been proposed including consolidation of the Theoretical Computer Science sequence to one course. Also discussed would be implementing a prerequisite course in programming or computer science problem solving prior to enrollment in the Introduction to Computer Science course. In addition, an integration of new courses in modern software development as well as software development for games is expected to better reflect content outlined by the computing curricula. A course in parallel computation is also being considered. These additions will complement the existing curriculum in the Bachelor of Science degree program.

The new changes are subject to university curriculum committee approval and could be implemented as soon as Fall 2011. The CS curriculum committee will continue to meet in the upcoming semester to discuss pertinent curriculum changes and the body of knowledge covered in the graduate curriculum to see if adjustments may be recommended. We look forward to continuing to offer a comprehensive and current curricular educational experience for NDSU students.

Digi-Key internships

The NDSU Department of Computer Science has been very successful through the years at the Digi-Key Collegiate Computing Competition. We send our brightest students and they have repeatedly impressed the judges by placing well.

As a result of this spring’s competition, three of our students received summer internships at Digi-Key in Thief River Falls. They are CS majors Nathan Ehresmann and Ben Christian, and Edic Alic, Computer Science / Math double major.

When Nathan was asked about what he gained from the experience, he said, “The most important thing I've learned through working at Digi-Key is the development process of software in a business setting. Learning about the software development life cycle in a classroom is one thing, experiencing it firsthand is something completely different.”

Simone Ludwig

Simone Ludwig joined the Dept of CS as an Associate Professor in Fall 2010. Prior to joining NDSU, she worked at the University of Saskatchewan, Canada, Concordia University.

Other fun facts

A look at the last five years of CS majors indicates the average number of incoming majors is 60. These students have a GPA of 3.30 and a composite ACT score of 24.72. (According to Registration and Records census data 2009)
It is our loss

Founding member of the CS Department, Dr. D. Bruce Erickson, 66, professor emeritus in the Department of Computer Science and Operations Research, died Wednesday, December 23, 2009.

Bruce coordinated the undergraduate program in Computer Science for many years. He also coordinated and gave generously to the departmental scholarship program for undergraduates. Bruce's main academic interest was undergraduate teaching.

Students have many fond memories of Bruce. MSc Jason Peterson says, “I credit him for so many wonderful memories, such as the time he randomly jumped up on a table and told us to "Never dereference a null pointer." He also said that if he had to play a recorder through his nose to get that to stick he would. Well, thankfully he did not go that far. Since it has been about 14 years ago when he did that, I think it has stuck quite well. His devotion to teaching was evident and effective. I learned more in his classes than in any other.”

Successful students

Besides working at the Microsoft Fargo campus as an SDET (Software Development Engineer In Test), Annaji Sharma Ganti is also pursuing his PhD in Computer Science at NDSU. He credits to the Microsoft Tuition Assistance Program for helping him. His current area of research is software testing in the Cloud. Recently he and his advisor, Dr. Tariq King, had a chance to write a research paper titled “Migrating Self-Testing into the Cloud”. Their paper was selected for inclusion in the Software Testing in the Cloud Workshop which was held on April 10, 2010 in Paris, France as part of the 3rd IEEE International Conference on Software Testing, Verification, and Validation (ICST 2010).

How does Annaji feel about it? He says, “The conference was a great learning experience. Apart from the conference I was also able to have a great time going around the beautiful city of Paris.”

Alumni news

Annette Godtland (Schauer) received a BS degree, majoring in CS, Math, and Math Education. Annette recently published her first book ‘This Little Program Went to Market: Create, Deploy, Distribute, Sell, and Market Software and More on the Internet at Little or No Cost to You.’ Annette graduated from NDSU in 1980 and lives in Rochester, MN.

She worked as a computer programmer at IBM for 20 years, then at Kingland Systems Corporation for 5 years. In 2004 Annette started Godtland Software Corporation. She sells some of her own programs on her Web site, www.godtlandsoftware.com. She says, “I’ve now compiled the tips, tools, and techniques that I used for the entire creation-to-sales process of my programs, demonstrated step-by-step, and published them in my first book.” Congratulations!

Jorgensen seminar

In Aug. Paul C. Jorgensen, Professor of Computer & Information Systems at Grand Valley State University in Allendale Michigan gave a presentation on “Test Driven Development: A Faustian Bargain.” An internationally renowned author and speaker on Software Engineering topics, he was a guest of Richard Rummelt. There was a good turnout, which included NDSU alumni, faculty, graduate students and several professional software engineers from the FM-Developers group.

Simone Ludwig

(Continued from page 2)

and Brunel University, UK. She received her PhD and MSc with distinction from Brunel University, UK, in 2004 and 2000 respectively. Before starting her academic career she worked several years in the software industry. Her research interests include artificial intelligence, evolutionary computation, knowledge engineering, semantic grid/web, and grid computing.

Congratulations, Dr Do

Dr Hyunsook Do, Assistant Professor, received a $16,000 grant in June 2010 from National Science Foundation: NSF REU (Research Experience for Undergraduates). This grant is specifically for supporting undergraduate students. Through this grant, students will construct infrastructure for software security testing, and this work will provide research experiences to undergraduate students. She also received another grant from NSF Computing and Communication Foundations starting from 9/1/2010 for one year for $50,000. The project title is "Adaptive Regression Testing (ART) Strategies and Empirical Evaluations” Congratulations, Dr Do!

CS impact in Miami

In June 2010, Dr Tariq King, Associate Professor (4th from left) and Richard Rummelt, Senior Lecturer (3rd from left), attended the second annual “Workshop on Integrating Software Testing into Programming Courses” at Florida International University in Miami Florida.

The event was hosted by Peter J. Clark, Professor of Comp.& Info Sciences, FIU and Professor Edward L. Jones, Chair, Department of Computing and Information Sciences Florida A&M University.

Participants included representatives from several Florida schools as well as universities in Ohio, Puerto Rico, South Carolina and, of course, the great state of North Dakota.

Remember room 244

IACC 244 lab has undergone a great transformation. It went from a lab to one that doubles as a classroom. The room has an overhead projector, pull down screen and seats 20 comfortably. Our thanks go to Adam Helsene and his student workers for the changes.
Computer Science Donation Form

Name(s): __________________________________________________________

Address: __________________________________________________________

My/our gift of $ ____________ is pledged and presented to the North Dakota State University Development Foundation.

This gift is designated for the

_____ Computer Science Endowment Fund  _____ Computer Science Scholarship Fund  _____ The Paul Juell Scholarship Fund

Credit Card: Please charge my gift of $ ____________ to my [ ] VISA [ ] DISCOVER [ ] MASTERCARD

Account #: __________________________________________________________

Expiration date: ___________ Signature: __________________________________

Matching Gift: Does your employer or spouse’s employer have a matching gift program? If so, ask your employer for the form, fill it out and send to:

NDSU Development Foundation
PO Box 5144
Fargo, ND 58105-5144

A signature is required for credit cards. The NDSU Development Foundation is qualified to receive gifts, donations, and bequests that are deductible for federal income tax purposes.

Thank you from all of us at NDSU Computer Science!