

Department of Integrated Science and Technology
Faculty Activity Report
2006-2007 Academic Year
Morgan C. Benton

Teaching Activities

Courses Taught (Summer 2006 – Spring 2007):

Course Number	Section Number	Semester	# of Credits	# of Students	Teaching Team Members (identify team lead)
ISAT 340	0001	F06	3	17	Joe Marchal (lead) Morgan Benton
ISAT 348	0001	F06	3	5	Jeff Kushner Morgan Benton
ISAT 252	0001	S07	3	10	
ISAT 348	0001	S07	3	9	
ISAT 440	0001	S07	3	11	David McGraw (co-lead) Morgan Benton (co-lead)
ISAT 493	0025	S07	3	2	Anne Henriksen Morgan Benton

Curriculum Development

ISAT 348—The Multimedia Industry: I **overhauled the syllabus** that was being used to teach this class for the last several years, upgrading it to cover the state of the art in multimedia for the web. This appears to have had a **positive impact on enrollment** in the course. Last fall there were 5 students. This spring there were 9, and so far there are 12 for fall, and it is likely that one or two more will enroll.

ISAT 252—Analytical Methods IV, Programming and Problem Solving: I made two major contributions to this course this spring:

- I **catalyzed a rewrite of many of the labs** for this course to move them away from the pedantic types of labs frequently found in a CS1 course, and towards labs which **focus on “ISATty” topics** like a pressure calculator which implements the ideal gas law.
- Also, I **created a set of video lectures** and tutorials and posted them on the web (<http://isat252.isat.jmu.edu/videos/index.html>). These cover a range of topics, some from the syllabus, and some not. Moving lecture-based material online freed up a great deal of class time to do hands-on, interactive work with the students.

I’d also like to point out that the IKM sector is typically not as attractive to our female students for some reason. Of the 10 students in my class (5 male/5 female) **100% of my female students have signed up for ISAT 340 in the fall**, and 2 out of 5 of the men have indicated that they’ll be taking 340.

Therefore 70% of my students indicated they'd like to continue studying computing, which is higher than the average of approximately 30% across all sections of 252 taught this spring.

ISAT 440—Social Aspects of Computing: This was an **overflow course** for me as I only needed two courses this spring to fill my contractual requirement. David McGraw and I developed a new version of this course and attracted a number of students from COB, CS, and ISAT. I **added a service learning option** for the course project and had students providing some really outstanding service to the community. Of particular note, Matt Wank and Pete Bamani (both COB students) worked at Harrisonburg's Big Brothers/Big Sisters chapter and did a complete technology inventory for their office including refurbishing a number of machines. They plan to continue their work and pull new cable for their office network.

Senior Thesis Advising

Balch, J. D., and Gilkeson, J. M. (2007) ShenanSOA: Bringing Water Quality Data to the Web using a Service Oriented Architecture. <http://134.126.24.118/tutorial/thesis.html>

With any luck, Matt and Jeremy's thesis will serve as the **foundation for my future work with students on making data available on the web in flexible formats**. I spent about 2 hours per week with them, and had students in my ISAT 348 course using the web service in multimedia design projects. I also used the Friends of the Shenandoah River data as a basis for the labs in ISAT 252.

Other Teaching Activities

Nighttime Hacking Sessions

In the fall section of **ISAT 348** the students and I had regular **nighttime hacking sessions**. While we didn't have them every week, they typically lasted from about 8PM to midnight and we took advantage of the **time to dive deeper into the topics that both the students and I were interested in, but which either weren't on the syllabus, or we didn't really have time to cover in class**.

Participation was completely voluntary, but most everyone showed up. Some of the projects we tackled were:

- Learning XUL ([there is only one XUL....](#)) to build Firefox extensions
- Working with [Greasemonkey](#) scripts to alter browser/webpage behavior
- Mashing up data from various websites, e.g. Toodledo to-do lists and Google Calendar events

As the semester wore on and people's assignments piled up we met less frequently, but I plan to continue having nighttime sessions with students. For whatever reason, meeting outside of class without a time table seems to be more motivational, even if we're basically covering the same stuff we would be covering in class anyway.

Workshop on Teaching Large Classes

I also attended and participated in ***Diane Ebert-May's November workshop on managing large classes***. Dr. Ebert-May was a visiting scholar at CARS from Michigan State last fall. Not only did I implement a number of her techniques with my students, but her work aided my thesis, too.

Innovation with the use of Basecamp

[Basecamp](#) is a web-based software system for project management. It is widely used in the web development community. I used it instead of BlackBoard for managing the online component of my classes. It has a number of really useful features including the ability to create flexible to-do lists for individuals or groups, have RSS and/or e-mail notifications of changes to the online environment and an easy-to-use file manager. Perhaps the best feature of the system was I was able to make it abundantly ***clear to students that they are being watched***. This made a dramatic difference in their preparedness for class and their motivation to work on class assignments. Students reported liking it much better than BlackBoard. I paid \$50/month for a subscription so that my students and I could have access to the time-tracking features. This allowed me to generate reports of how much time people spent doing things. This works great as a 2-way feedback mechanism.

Professional Service Activities

Teams and Committees

I was the ***unofficial notes/minutes-taker*** at most of meetings I attended.

- **IS/IKM Team**
Prepared our team's proposal for ETF funds to purchase new lab equipment in the 3rd floor computer labs.
- **SCOTS Team**
Helped bring in outside guests as part of the team's Mennonite technology acceptance study.
- **ISAT C&I Committee**
Prepared and shepherded the approval process for ISAT 447—Interaction Design. Agreed to offer feedback to the team that is preparing the Information Analyst program.
- **CISAT Digital Measures/Course Response Evaluation Team**
I was a member of this team that is working to evaluate this software for the college and our departments.

Professional Society Memberships

- IEEE
- ACM
 - ACM SIGCHI
 - ACM SIGCSE
- AIS

Consulting

I am the owner of [Morphatic](#), a web design, development, and hosting company. My professional experiences come up continually in classroom teaching and lend credibility to the things I'm saying about web design. It allows me to speak with authority on the "Industry" half of the "Multimedia Industry" title of ISAT 348. I frequently share experiences related to cost/time estimation, developing and maintaining relationships with clients, and general professionalism. Furthermore, consulting keeps me on the cutting edge of my field. My time for consulting has been very limited this year, but includes the following:

- **BeaconReverse.com website: July to August, 2006**
Beacon Reverse is a company in northern Virginia that sells reverse mortgages, a financial vehicle that allows senior citizens to make use of the equity tied up in their homes. We rolled out a website for them that includes recorded online presentations and digital video interviews with clients.
- **Various smaller projects: continuous**
A "small" project is one that generally takes less than one day to accomplish and typically consists of things like domain registration, website maintenance, responding to other miscellaneous client requests, and doing pro bono work for family members.

Other Service

- Greeted potential students and their parents at Parents' Weekend (10/7/06)
- Took 1st place in the 1st Annual ISAT Golf Scramble
- Participated in IEEE JMU student chapter recruiting
- Participated in brown bag lunches with the department head
- Worked with Jenne McCabe, Jonathan Spindel and others to create a software usability lab in the basement of the HHS building. Contributed \$2500 from the DHR grant for this purpose.
- Ran workshops for Thomas Harrison Middle School students when they visited on 12/08/06
- Took notes/minutes for ISAT faculty meetings
- Attended an ISAT Assessment Committee meeting in anticipation of joining that group next year, and consulted on the questionnaire that was distributed to seniors on Assessment Day
- Met with Carol Hurney about becoming a TAP consultant for Fall 2007
- Participated and took notes at the Dean's open forum on 3/26/07
- Went to the ISAT Senior Banquet on 4/26/07
- Completed my ABET CV and ABET binder for ISAT 348 completely and on time

Scholarship and Professional Development

PhD Dissertation

Of course my biggest accomplishment this year was completing my PhD thesis. I successfully defended my thesis on Monday, May 7th, 2007 and will officially graduate from NJIT in August 2007. Other than that, I did not publish any papers, or attend any conferences this year.

Virginia Department of Historical Resources—Highway Markers Project

I received a grant as PI from the Commonwealth of Virginia for \$37,500.11 to build a web-based search engine capable of finding and displaying the more than 2000 historical highway markers in the state on an interactive map. This project was completed in time to coincide with the Jamestown quadrennial celebrations going on in the state this year. In addition to the website, various other database integration tasks were performed. I employed three JMU students and one other faculty member in the course of this project. Our work was well-received and we anticipate further requests from the state to complete web-based projects.

Other Scholarly/PD Activities

The following is a list of my other accomplishments this year:

- **CISAT Faculty Research Day—10/06/06**
I created and presented a poster at this event.
- **Attended Craig Shealy's IBAVI talk—10/06/06**
Dr. Shealy was this year's Madison Scholar and he presented his work on beliefs and values.
- **Attended Allen Lee's talk — 10/20/06**
Dr. Lee, from VCU and Harry Reif's advisor, is one of the more famous people in the IS universe. He presented his paper on theory-proving in IS research.
- **Attended Cornell West's talk—1/15/07**
- **Attended Keo Cavalcanti's workshop on preparing for tenure—2/9/07**
- **Had a TAP (Teaching Assessment Poll) done for my ISAT 252 course—2/26/07**
I also encouraged a number of other faculty to do so. I plan to become a TAP consultant next year.
- **Gave a guest lecture on Japanese culture in Jonathan Walker's east asia class 3/15/07**
- **Was trained in the use of WebSurveyor and mentored students in its use**
- **Joined a Fishkill Project Team with Drs. Benzing and Biesecker**
This was Amanda's idea. The three of us brought together the six students working on their senior projects under us and are working with them to have a truly integrated experience.
- **I subscribe to and read the following journals/magazines/blogs to stay current in my field:**
 - Communications of the ACM
 - IEEE Computer
 - ACM SIGCHI Interactions
 - InfoWorld
 - Chronicle of Higher Ed
 - Jon Udell's blog
 - Ajaxian blog
 - A List Apart (online magazine)

General Comments

What I Accomplished

I consider this to have been an extraordinarily successful year for me. I completed my thesis, taught an overload while making curricular innovations, won and successfully completed a grant-funded project, made connections with faculty members in CARS and CFI, learned to program in Visual Basic, got a much deeper sense and appreciation for the spirit and character of the ISAT department, and carved a niche for myself within it. Perhaps equally important, I think I was able to tactfully decline a number of opportunities that would have caused me to be truly overextended. However, the most important thing I've done in the past year is to begin to articulate a vision for the rest of my career.

I'm 33 years old and therefore have about 40 years left to make a concrete contribution to the world. I'm really excited by the opportunities to build professional development into the technological tools that we faculty use to teach our courses. I see two major strands in my future work: one in the development of web-based technologies, and a second in fostering a deeper and more reflective teaching practice in myself and my colleagues. One of the things that excite me most about this realization is that it makes for a very tight integration across my teaching, service, and scholarship activities. If I plan carefully, the synergies between my efforts may help my work be the rising tide that floats all boats.

What We Accomplished

Without much of a historical perspective, it is difficult for me to comment on what we have accomplished as a department this year. However, from my past experience I know that completing the **ABET self-study** is a **major** accomplishment, and one to be proud of. I agree with Mary Handley's assessment that we are indeed ***moving toward becoming a department that makes decisions based on evidence*** (it's truly ironic that any university department does otherwise), and then "closes the loop" in terms of taking actions based on that evidence that in turn lead to new assessments and new evidence. Given the juggernaut of NCLB ("No Child Left Behind"¹), it is only a matter of time before clearly defined, benchmarked, accountability programs will be thrust upon universities. We need to anticipate this and be ready for it.

I think the establishment of the two committees that focus on different time scales for ISAT (tactical and strategic?) is significant. I also think it's significant that these teams are headed up by people with such different personalities. Anne Henriksen is one of those people who needs closure and tight definitions, and is a good choice to head up the Foundations committee which needs to have finished syllabi in place each term. On the other hand Bob Kolvoord is much more comfortable with open, and possibly unanswerable questions (like "What is ISAT?"). He is a phenomenal moderator and has a real gift for fostering open conversation, while making noteworthy progress on difficult, even existential, questions.

¹ Incidentally, one of my friends who got his PhD in educational measurement from Stanford asked the amusing question "No child left behind what?" If student performance is accurately described by a bell curve, and if NCLB is successful at raising achievement scores, then isn't it just that the entire curve will just shift to the right, and the people toward the "bottom" remain at the bottom?

What we should focus on for next year (2007-2008)

I get the sense from my conversations that there was a noticeable loss of cohesiveness in the department this year compared to previous years. This may have been summed up best by Barb Gabriel when she vented her frustration at a faculty meeting that she wasn't aware of what was going on around the department, and proposed that our May summit should consist of reports from various committees and task forces throughout the department². Although I was overwhelmed with my thesis work and probably couldn't have attended anyway, I didn't get the sense that there was a whole lot of extracurricular gathering of the faculty.

I echo Barb's frustration. We are a large and incredibly diverse department that is spread throughout remote parts of two buildings. We need to have a multi-pronged approach to developing, nurturing, and maintaining cohesiveness as a department. There need to be efficient and effective ways for us to learn what all of our colleagues are doing, both in their team/committee work, and in their personal research. There need to be frequent opportunities for faculty to get to know each other on a more social level. Collectively I get the sense that the faculty has aged, and that whereas ISAT is a department that continually demands that it be reinvented, a number of the old guard faculty seem reluctant to tackle anew the question of "What is ISAT?"

Addressing this issue of cohesiveness is one of the main reasons I'm excited about taking on the departmental website project. I'm really looking forward to making some inroads on this over the next several years. At the August 2007 Summit, I think we might brainstorm some fun social activities that people could participate in over the next year. Perhaps some trips together, retreats, or even just weekly trip to the pub would be feasible. I think this would be a fun task for us to work on.

Alignment with Departmental Goals

Enrollment and Diversity

- Curricular development efforts in ISAT 252, 348, and 440 have increased the numbers of students in those courses, and the number of women (a greatly underrepresented group) in computing.

Curricular Assessment

- Had a TAP done of my own teaching
- Signed up to become a TAP consultant in the future
- Consulted for the Assessment Committee to help improve their survey for seniors

² As a faculty member who was not able to attend the May summit because I was defending my thesis, I notice that there does not seem to have been any tangible record of the summit that was generated as a result of this significant gathering. Did committees report? Did they turn in any sort of reports? How will this meeting live on in the departmental history?

Teaching and Education Research

- My thesis is in this area. I developed a tool to help teachers become better at classroom assessment.
- I developed relationships with faculty in CARS, and at Michigan State University in this area.

Departmental Strategic Planning

- Taking notes at faculty and team meetings contributed to the history of the department that can be crucial in making informed strategic decisions as we move forward.
- I also attended some of Bob Kolvoord's meetings on the future of the department.

Growing the Master's Program

- I turned down an invitation from Mo and Barb to teach a master's course this past spring. I didn't have time to do it, but said I'd be happy to get more involved next year.
- I did interact with Matthew Harrison, an ISAT master's student who interned with the SCOTS team this spring and was an invaluable asset to, in fact catalyzed, our work on the Mennonite technology acceptance study.

Develop Appropriate Organizational Structures

- I was not a leader in this area. As a new faculty member, however, I did my best to figure out what the current structure is, and how it got to be the way that it is, so that I can help shape it in the future.

Secure Necessary Financial and Physical Resources

- I helped get funding for and built a software usability lab this year, expanding ISAT's "footprint" a little more and developing more ties with people in the library, and CS.

Support and Recognize Research, Scholarship, and Service activities

- I signed the award that we gave to Paul Henriksen that David McGraw put together. 😊

Anticipated Plan for 2007-2008

Teaching: 30%

I expect to contribute a great deal of time to further curricular development and the development of a great deal more online course resources in the following:

- ISAT 252 (Spring 2008)
- ISAT 340 (Fall 2007)
- ISAT 348 (both Fall and Spring)

I expect to take a course release each semester to work on the ISAT website.

Service: 30%

My primary effort will be toward a comprehensive overhaul of both inwardly and outwardly focused web resources of the department. Primarily I want to catalogue and cull what resources currently exist, and then develop a scheme whereby anyone can follow a relatively coherent historical thread through the documents that have existed in the past and currently exist. That being said, the primary focus of the outwardly focused website will be on the recruitment of ISAT majors. The primary focus of the inwardly focused activity will be on documenting departmental activities and making that documentation available on a regular basis to faculty. In addition I will be a member on the following teams and committees:

- ADH Team, as needed
- Assessment Committee
- C&I Committee
- IKM/IS Team
- SCOTS Team

At the College and University levels, I anticipate being a member of the CISAT Digital Measures evaluation team, and also becoming a TAP consultant for the CFI.

Scholarship: 30%

I plan to submit papers based on my thesis to the following:

- ICIS Conference Dissertation Contest
- AERA annual conference (education)
- SIGCHI annual conference (human-computer interaction)
- Possibly SIGCSE (computer science education)
- Journal of Computers and Education (the editor was on my thesis committee)
- Other venues?

In addition, I plan to work on developing a revised version of my QuesGen tool and collect data in a longitudinal study (potentially next spring?) that will help determine the effectiveness of my approach. I've been developing contacts with the VA Department of Education's person in charge of educational technology, and may pursue funding to do work with QuesGen at the K12 level. I may reach out to some people in CARS and the Education departments at JMU to work with me on this.

Consulting and Other Activities: 10%

I plan to continue my work as a web consultant. I am also interested in developing a study abroad program for JMU students in Japan.

Conflict of Interest Disclosure

Companies for which I consulted this past year:

- Beacon Mortgage in Fairfax, VA
- Mathew Greenwald and Associates, Inc. in Washington D.C.
- Gym Door Repairs, Inc. in Queens, NY
- Pinnacle Companies, U.S. in Cedar Grove, NJ

Company I own: Morphatic, <http://www.morphatic.com>

There are no other areas of potential conflict of interest that I would like to discuss.