Department of Integrated Science & Technology
Faculty Activity Report
2010 - 2011 Academic Year

TEACHING ACTIVITIES

Courses Taught (2010 - 2011):

Course Number	Section Number	Semester	# of Credits	# of Students	Teaching Team Members (identify team lead)
ISAT 252	4	Spring	3	27	Benton, Morgan C., Tony Teate
ISAT 252	2	Spring	3	26	Benton, Morgan C., Tony Teate
ISAT 252	1	Spring	3	25	Benton, Morgan C., Tony Teate
ISAT 492	5	Spring	2	2	Benton, Morgan C.
ISAT 493	5	Spring	3	4	Benton, Morgan C., Emil Salib
ISAT 131	1	Spring	1	11	Benton, Morgan C., David McGraw, Jeff Tang, Amanda Biesecker, Nicole Radziwill, Michael Klein, Carole Nash
ISAT 640	EX01	Fall	3	12	Benton, Morgan C., Emil Salib
ISAT 492	23	Fall	2	5	Benton, Morgan C., Emil Salib
ISAT 340	1	Fall	3	18	Benton, Morgan C., Tony Teate
ISAT 348	1	Fall	3	18	Benton, Morgan C.

Curriculum development or instructional improvement activities:

"Analytical Methods IV: Programming and Problem Solving", ISAT 252, Sections 1, 2 & 4, 78 students, 3 credit hours. (Spring 2011)
Pedagogical Innovations: I created a new online system that linked to Qualtrics via which students performed weekly self-evaluations. This was designed to provide them regular feedback on their performance as they worked toward producing a final portfolio of work for the course. Students were evaluated based on their portfolios.
New Teaching Materials: I developed an extensive website, including a number of new online videos. I also worked with the students to incorporate a new version control system called Subversion into their weekly workflow.

"Senior Thesis II", ISAT, 492, 5, 2 students, 2 credit hours, Independent Studies, new course preparation. (Spring 2011).

"Senior Thesis III", ISAT, 493, 5, 4 students, 3 credit hours, Independent Studies, new course preparation. (Spring 2011).

"Technology, Science, and Society", ISAT, 131, 1, 11 students, 1 credit hours, Classroom, new course preparation. (Spring 2011).
Pedagogical innovations: I was one of a number of faculty who led small-group discussion sections for a new hybrid format for this course.

"Software Development", ISAT 340, Section 1, 18 students, 3 credit hours, Classroom. (Fall 2010) Pedagogical Innovations: Introduced a portfolio-based evaluation format for the course designed to minimize the negative impact of grades on students' learning.

"Information & Technology Management", ISAT, 640, EX01, 12 students, 3 credit hours, Classroom, new course preparation. (Fall 2010).

"Senior Thesis II", ISAT, 492, 23, 5 students, 2 credit hours, Independent Studies, new course preparation. (Fall 2010).

Your advising role this past year:

As a senior project advisor I meet each of my students one-on-one (or two-on-one if it's a team project) for at least an hour a week, so given that I advised six projects this year, I probably averaged 5-6 hours per week with my senior project students. In addition, I am available on Monday nights at the weekly "hacking session" that I host for all of my courses. My students frequently come in for extra help during those sessions. I also get students working for other professors to come in as well if they need help on the programming component of the project that they are working on.

- Senior Thesis Advising

Jacobson, R., Senior Thesis Advising, ISAT Department, ISAT, 492, 2 credit hours, "Extending Search Functionality of Biochar Database with Solr Full Text Search Installation Plug-in", In-Process. (December 15, 2010 - Present).

Watson, S., Senior Thesis Advising, ISAT Department, ISAT, 492, 2 credit hours, "FANTASY FOOTBALL DATABASE AND WEBSITE APPLICATION", In-Process. (December 8, 2010 - Present).

Klepper, A., Mason, M., Senior Thesis Advising, ISAT Department, ISAT, 492/493, 5 credit hours, "The Use of Electroencephalogram Technology to Harness Brain Waves that Signal Motion to Control an External Computer Application", Completed. (March 2010 - May 7, 2011).

Long, A., Jones, C., Senior Thesis Advising, ISAT Department, ISAT, 492/493, 5 credit hours, "Harrisonburg – Department of Public Transportation Itinerary Planner", Completed. (March 2010 - May 7, 2011).

Madden, G., Senior Thesis Advising, ISAT Department, ISAT, 492/493, 5 credit hours, "Mobile Assessment Tool for Water, Sanitation and Household Energy Technology Selection in Developing Countries", Completed. (March 2010 - May 7, 2011).

Merkel, M., Senior Thesis Advising, ISAT Department, ISAT, 492/493, 5 credit hours, "Development of a Residential Site Assessment and Economic Feasibility Calculator for Solar Thermal Systems in Virginia", Completed. (March 2010 - May 7, 2011).

Other teaching-related activities:

I host a weekly "hacking session" on Monday nights from 8pm to midnight in the IKM lab, ISAT/CS 337. The goal of the hacking session is to allow students to work in a relaxed atmosphere with access to experts (myself, my TAs, and other professors who attend) on anything technology related that they are interested in. The attendance ranges from 5-6 to 40 or so but tends to average in the 10-15 student range on any given Monday. While the majority of students are there to work on assigned class projects, I usually have 2-3 students per semester who come just to come. They may work on a single project or on a series of small projects throughout the course of the semester.

Students frequently cite the hacking sessions as being one of the best elements of their learning experience throughout the semester.

I also put a significant amount of time and energy into organizing and recruiting students for a study abroad trip to Japan that was to leave in May 2011. I had recruited enough students to make the trip happen when the unfortunate earthquake and tsunami hit Japan forcing me to cancel the trip.

PROFESSIONAL SERVICE ACTIVITIES

JMU teams & committees:

- Departmental

Assessment Committee, Committee Member, approximately 30 hours spent for the year, No, neither, Developed and delivered an advising survey.

Advised the Associate Dean on portfolio systems. (August 2010 - May 2011).
Attend meetings, assist with various ISAT program assessment activities, work with Mary Handley on the development/procurement of a portfolio system, took notes for A-Day interviews.

Curriculum and Instruction Committee, Committee Member, approximately 15 hours spent for the year, Yes, appointed, Pro Bono. (August 2010 - May 2011).
Attend meetings, stay abreast of CAR/PAR proposals that come to the committee, vote on committee decisions.

Department and Program Faculty Meeting Minute Taker, Minute Taker, approximately 16 hours spent for the year, Yes, appointed, Pro Bono. (August 2010 - May 2011).
Take attendance and minutes at ISAT Program and ISAT Department Faculty Meetings. Upload them to the departmental Blackboard site.

Foundations Committee, Committee Member, approximately 10 hours spent for the year, Yes, appointed, Pro Bono, Revised the ISAT 252 CAR and entered it into the OCR. (August 2010 - May 2011).
Attend meetings, carry out various tasks assigned by the committee that pertain to the ISAT 252 course that I represent on the team.

IKM Team, Committee Chair, approximately 20 hours spent for the year, Yes, elected, Pro Bono, Engaged in a discussion of our upper division curriculum and began a process for revision. (August 2010 - May 2011).
Convene meetings, take attendance and minutes, set agendas.

ISAT Honor Society, Faculty Advisor, approximately 10 hours spent for the year, No, neither. (August 2010 - May 2011).
Provide support for IHS activities, liaison between IHS and the faculty.

Recruitment Committee, Committee Chair, approximately 50 hours spent for the year, Yes, elected, Pro Bono, Fall Recruiting Event
Staffing CHOICES/Take A Look Day Events
Attending Recruiter Lunches
Won an IDEA Grant
Presentation at VA School Counselor's Association Meeting. (August 2010 - May 2011).
Convene meetings, take attendance, set agendas, make sure minutes are taken and distributed.

SCOTS Academic Team, Committee Member, approximately 20 hours spent for the year, No, neither, Pro Bono, Created and ran an experimental hybrid version of ISAT 131. (August 2010 - May 2011).
Attend meetings, advise on decisions before the committee

Web Advisory Committee, Committee Chair, approximately 50 hours spent for the year, Yes, appointed, Pro Bono, Added research and academic concentration sections to the website. (August 2010 - May 2011).
Oversee development and maintenance of the ISAT Departmental web presence

ISAT Golf Challenge Committee, Committee Member, approximately 10 hours spent for the year, No, neither, Held a successful fundraiser for the Dick Roberds Scholarship. (August 2010 - September 2010).
Liaison to IHS, and coordinated content for the ISAT Website

- College

Bridging the Valley--Course for Freshmen, Invited Guest, approximately 2 hours spent for the year, No, neither, Pro Bono. (November 19, 2010).

Joined Jennifer Sowers' students for lunch to talk to them about STEM studies and careers in the programming and web development area.

- University

QEP Whitepaper Team, Committee Member, approximately 20 hours spent for the year, Yes, appointed, Compensated. (May 2011 - June 2011).
Help to put together a white paper fleshing out the plan behind a QEP proposal designed to create a structured course redesign process for JMU

Asian Studies Minor Steering Committee, Committee Member, approximately 5 hours spent for the year, No, neither. (August 2010 - May 2011).
Attend meetings, aid in working on the Asian Studies Symposium, help put together courses related to Asian studies at JMU

CFI TAP Consultant, TAP Consultant, approximately 30 hours spent for the year, No, neither. (August 2010 - May 2011).
Volunteer to conduct a Teaching Analysis Poll (TAP) in 5 courses per semester at the request of faculty who wish to have a TAP in their courses

Petition to Purchase Qualtrics API Access, Petitioner, approximately 10 hours spent for the year, No, neither, Pro Bono, This proposal was successful and JMU now can write web applications that make direct connections to Qualtrics' database.. (October 2010 - December 2010).
I put together a proposal for Dale Hulvey to get JMU to purchase access to Qualtrics API.

Online Course Evaluation Software Evaluation, Attendee, Meeting, approximately 6 hours spent for the year, No, neither, Pro Bono. (October 2010 - November 2010).
I attended demos from three vendors of online course evaluation software and offered feedback to Sarah Cheverton

Getting to Know your Classroom Climate, Guest Speaker, approximately 20 hours spent for the year, No, neither, Pro Bono, Received high ratings from attendees.. (August 2010 - October 2010).
Worked with Laura Haas to develop and deliver a CFI Workshop.

Preface Conversations with Faculty Facilitator, Faculty Advisor, approximately 5 hours spent for the year, No, neither, Pro Bono. (August 2010).
Read a number of articles on the DNA Age and lead a discussion with new freshmen during orientation

Faculty sponsorship of student organizations or other student-related events:
I am the faculty advisor for both the ISAT Honor Society and the Japan Club.

Professional society offices held and membership on professional society committees:

American Society for Quality--Software Division, ASQ, Regional Coordinator for Region 11, International. (January 1, 2010 - Present).
ASQ is the world's leading membership organization devoted to quality.

Other professional society activities:

Association for Computing Machinery, ACM, International. (January 1, 2002 - Present).
ACM, the world's largest educational and scientific computing society, delivers resources that advance computing as a science and a profession.

IEEE & IEEE Computer Society, IEEE, International. (January 1, 2002 - Present).
IEEE is the world's largest professional association dedicated to advancing technological innovation and excellence for the benefit of humanity.

Paper/proposal review or journal editing activities:

I was a reviewer for the *Journal of Information Systems Education* and reviewed two articles this year.

Professional consulting activities (external or internal to JMU):

For Profit Organization, Web hosting and development, Compensated, approximately 100 hours spent for the year. (November 1, 2005 - Present).
Provision of website analysis, implementation, and maintenance services to individuals, small businesses, and academic organizations.

Community Service activities:

Thomas Harrison Middle School PTA, Member, Harrisonburg, VA, USA, approximately 15 hours spent for the year, No, neither, Pro Bono, Local. (October 2010 - Present).
Worked with the PTA to develop a multilingual website.

Friendly City Food Coop, Member, Harrisonburg, VA, USA, approximately 4 hours spent for the year, No, neither, Pro Bono, Regional, Because of fundraising activities, store is expected to open in summer 2011. (October 2008 - Present).
Working to bring healthier, more environmentally friendly, and sustainable foods to Harrisonburg at an affordable price

Harrisonburg City Schools Gifted Advisory Committee, Committee Member, Harrisonburg, VA, USA, approximately 12 hours spent for the year, Yes, appointed, Pro Bono, Local, Worked to flesh out the plan we made last year to expand the definition of "gifted" and provide more specialized services to a broader range of students in Harrisonburg. (August 2010 - May 2011).

Work with teachers, administrators, and other parents in Harrisonburg City Schools to oversee the delivery of services to gifted and talented students

SCHOLARSHIP AND PROFESSIONAL DEVELOPMENTACTIVITIES

Conference attendance or professional meeting participation (regional, national, or international): (indicate if you had a leadership of planning role in the event)

Self-Study Program, "ASP.Net MVC Framework", Professional. (October 1, 2009 - Present).
Learned how to build and deploy applications using the newest of Microsoft's entries into the web development world

Self-Study Program, "Version Control with Subversion", Professional. (September 1, 2008 - Present).
Invested time in learning about using version control in software development and setting up this resource for use with senior project students

Professional conference papers or presentations (regional, national, or international):

Benton, M. C., Radziwill, N., M., (2011) *A Path for Exploring the Agile Organizing Framework in Technology Education* (pp. 4). Salt Lake City, Utah: Proceedings of Agile 2011 Conference sponsored by the Agile Alliance. Publicly available.
When the Agile Organizing Framework (AOF) is examined through the lens of the social constructivist pedagogy, principles and practices that define an agile learning environment emerge. This paper presents a translation of the AOF to fit the context of instruction in higher education based on the social constructivist perspective, and is not limited to software engineering education. Additional research is needed to observe, test and validate each of the agile enablers and inhibitors in the classroom, and to determine which principles and practices best contribute to the achievement of learning objectives. Furthermore, we hypothesize that integrating elements of the agile learning environment into agile software development methodologies could enhance a team's ability to successfully synchronize exploitation (the continuous improvement of existing products and practices) with exploration (the identification and implementation of breakthrough innovations).

Benton, M. C., Pappas, J., Pappas, E. C. (2011). *WordPress+Qualtrics: A Plugin Supporting Research and New Pedagogy to Develop Personal Sustainability via 360 Evaluation* (pp. 9). Detroit, Michigan: Proceedings of the 17th Americas Conference on Information Systems., publicly available, http://www.wikicfp.com/cfp/servlet/event.showcfp?eventid=11309&copyownerid=15176
Fostering deep and meaningful self-reflection that leads to action, growth, and personal change among students challenges professors of large classes. Over 280 students in a single lecture course on critical thinking were asked to take part in a

self-analysis and also were provided multisource (360□) feedback. The combination of personalized feedback from the self and from known others appears to facilitate processes related to self-insight and developmental goal setting. This pedagogical approach would not have been possible without the development of software integrating WordPress, a popular, free, open-source content management system (CMS), with Qualtrics, an online survey tool. This paper describes how this technology served both as a pedagogical tool, as well as a research tool.

Biesecker, A. G. (Author Only), McGraw, D. K. (Presenter & Author), Tang, J. D. (Author Only), Benton, M. C. (Author Only), Saunders, D. (Author Only), Association for Practical & Professional Ethics, Association for Practical & Professional Ethics, Cincinnati, OH, "Who Teaches Ethics? An Inquiry into the Nature of Ethics as an Academic Discipline", National, Refereed, Accepted. (March 3, 2011).
This paper presents an empirical study of the educational backgrounds of professors currently teaching college- and university-level ethics courses in the U.S. The research suggests that most professors teaching ethics courses offered through philosophy departments have credentials in philosophy, but that the largest number of ethics courses are taught outside philosophy departments by professors who have no degrees in philosophy.

Radziwill, N. M. (Presenter & Author), Benton, M. C. (Author Only), International Conference on Software Quality (ICSQ), American Society for Quality (ASQ), San Diego, CA, "Applying the Agile Organizing Framework to Team Management", International, Refereed, published in proceedings, Invited. (February 8, 2011).
Using theoretical constructs from the literature in complex adaptive systems (CAS), researchers observed that agile software development teams demonstrate six emergent capabilities. We describe how to apply these to managing software development teams.

Benton, M. C. (Presenter & Author), Radziwill, N. M. (Presenter & Author), 2010 ATMAE Annual Conference, Association of Technology, Management, and Applied Engineering, Panama City, FL, "Using the Agile Organizing Framework to Create Adaptive Learning Environments for Technology Development", National, Refereed, Accepted. (November 9, 2010).

Other invited lectures, seminars, symposia, workshops, or colloquia:

Benton, M. C. (Presenter & Author), ISAT Department Mini-Symposium on Pedagogical Innovations, ISAT Department, Harrisonburg, VA, "Beyond Dogma: Tales of a Grading Heretic", Local, Invited. (May 13, 2011).

Benton, M. C. (Presenter & Author), Faculty Flashpoint: Egypt, JMU Center for Faculty Innovation, Harrisonburg, VA, "The Impact of Social Networking on the Arab Spring in Egypt", Local, Invited. (February 4, 2011).

Benton, M. C., Radziwill, N. M., CISAT Faculty Research Day, "Using the Agile Organizing Framework to Create Adaptive Learning Environments for Technology Development", Local. (October 1, 2010).

Participation in proposals submitted:

Benton, M. C. (Co-Principal), Pappas, E. C. (Principal), Hulleman, C. (Co-Principal), Frazier, H. (Co-Principal), Grant, Scholarship, "Research into Instructional Content and Methodologies for Teaching Sustainability", National Science Foundation, Federal, $512,000.00, Currently Under Review. (sub: February 2, 2011).

In the last few years, universities have begun to integrate instruction in sustainability into their curricula to varying degrees, but much of this instruction is predominantly in environmental sustainability. In 1986, the Brundtland Report to the United Nations stated a concern "about the accelerating deterioration of the human environment and natural resources, and the consequences of that deterioration for economic and social development.…" There is a need to explore and develop new methods of defining sustainability as well as exploring new methodologies for teaching sustainability. This James Madison University proposal assembles a group of faculty and students from engineering, science, social science, humanities, and education to research and experiment with content and instructional methodologies to determine the most effective methods for integrating sustainability in five contexts (environmental, social / cultural, economic, technical, individual) into the university curriculum. Sustainability focuses on far more than our treatment of environmental resources and the inevitable waste resulting from the production of goods and services. Sustainability in five contexts is defined as follows: 1) Environmental Sustainability deals with the engineering of processes, products, and structures which has, indefinitely, a less negative, or a neutral or benign effect on all environmental systems. 2) Social and Cultural Sustainability includes the roles and interactions among individuals; relationships among social groups, the family; collective behavior; social class, race and ethnicity; medicine; education; and the role of institutions in society. 3) Economic Sustainability pertains to profit-making policies and strategies supporting the design and development of a process, product, or service. As well, economic sustainability addresses factors that influence the economic health and profile of communities, including the standard of living, the business climate, employment, and the productive role of the corporation in the life of a community. 4) Technical Sustainability addresses a wide variety of factors related to the design and manufacture of products, especially the scientific research and appropriate technology (compared to alternatives) supporting product design, function, and development; ease and efficiency of durable construction and use; maintenance and functioning

capabilities that meet the objective for which a product is designed; material selection; and reduction, recovery, reuse, or disposal of parts and unused materials. 5) Individual Sustainability concerns a person's ability to live a sustainable lifestyle that includes creating harmony, interconnection, and relatively high levels of awareness in one's values, thoughts, and behaviors, as well as maintaining an increasing control over one's physical, emotional, social, philosophical/spiritual, and intellectual life.

Three factors inform this approach to researching and integrating instruction into the curriculum. First, is the inherent value of approaching sustainability employing a systems theory approach. Second, values are a principle guiding force for defining and solving sustainability problems. Third, it is an individual's behavior, not simply his or her knowledge of sustainability, that supports and promotes sustainability. It appears that offering the opportunity to learn about sustainability does not necessarily lead to more sustainable behaviors. Developing individual values may provide motivation to behave in a manner more congruent with sustainability principles. The time has come for universities to educate and motivate students to act upon their knowledge and values, and actively bring their understanding of sustainability into their lives, communities, and careers.
This proposal has three key objectives: 1) Research and discover what constitutes "valuable knowledge" in sustainability (knowledge and behaviors useful to problem solving and human prosperity). 2) Determine the most effective methodologies for integrating instruction focusing on values and behaviors in sustainability into existing course material. 3) Assess and evaluate this research and instructional approach.

The final deliverable of this proposal is a scalable and transferable model for integrating instruction in sustainability in five contexts across the university curriculum.

Current grant or contract funded activities:

Klevickis, C. A. (Supporting), Benton, M. C. (Principal), Grant, Service, IDEA Grant, James Madison University, $4,000.00, Funded. (start: March 2011).

Benton, M. C. (Co-Principal), Pappas, E. C. (Principal), Watson, H. (Co-Principal), Nagel, R. (Co-Principal), Grant, Scholarship, "Teaching, Integrating Developmental Instruction in Sustainability Contexts into an Undergraduate Engineering Design Curriculum", National Science Foundation, Federal, $150,000.00, Funded. (sub: March 11, 2009, start: August 2009, end: August 2012).
Declining environmental, economic, and social conditions world-wide require a response from the engineering community, especially higher education, since many of the solutions to these problems are related to the discipline, particularly engineering design for sustainability. As well, global competitiveness,

outsourcing, and the increased production of overseas engineers are issues that are becoming increasingly relevant in undergraduate engineering education and have prompted a number of calls to protect U.S. global competitiveness. Recent examples of such works include Educating the Engineer of 2020 (National Academy of Engineering, 2005), Rising Above the Gathering Storm (Committee on Science, Engineering, and Public Policy, 2006), and The World is Flat (Friedman, 2005). All these reports have challenged engineering institutions to increase the production and improve the education of engineering graduates. This is an increasingly important concern because, with the rapid pace of technological change, the future engineer is not only expected to offer technical ingenuity but also to adapt to a continuously evolving environment while simultaneously being able to operate outside the narrow limits of one discipline and be ethically grounded in solving the complex problems of the future, most especially those related to sustainability. Engineering as a discipline must evolve to meet our growing understanding of global, domestic, and local conditions related to the environment as well as its influence on a variety of sustainability contexts that promote human well-being.

Summary—Developmental instruction in sustainability contexts (environmental, social, economic, technical) in an engineering design curriculum will offer a strong foundation and framework upon which to build an engineering program that will teach students the necessary methodologies for designing for sustainability. While instruction in sustainability has increasingly become a component of undergraduate engineering programs, often instruction extends little beyond environmental contexts and some instruction in social contexts (usually related to social justice). Instruction in sustainability contexts (as per the Brundtland Report and others) in the current proposal will employ a developmental approach using Bloom's Taxonomy of Thinking Skills (cognitive—thinking skills, affective—attitudes and growth, and psychomotor—manual skills). There have been three major pitfalls in instruction in sustainability in engineering curricula: 1) Too often sustainability instruction is nearly absent or adjunct to technical instruction; 2) Few programs address multiple contexts in sustainability, especially focusing on the interdependency among contexts; and 3) The speed of integrating sustainability instruction into engineering curricula is too slow to match the speed at which we need to confront immediate local and global sustainability problems. During this two-year effort, we will accomplish the following:

1) Integrate instruction in sustainability (in all the above contexts) into our six-course three- year design-to-build curriculum that models workplace practice;
2) Develop innovative developmental hands-on instructional methodologies (using Bloom's Taxonomy to create individual and collaborative problem solving projects) for teaching sustainability in each context that demonstrates the interdependence among all contexts; and
3) Develop methods for evaluating sustainability projects that support the

development of students' design competences, cognitive processes (re: Bloom), and life long learning skills.

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Intellectual Merit—This project addresses the widespread problem of integrating instruction in sustainability into engineering curricula as well as employing developmental instructional methodologies that will allow students to acquire the problem solving competencies necessary to design products and processes that address the "reciprocal influences" among sustainability contexts. By exposing our students to assignments and hands-on projects for designing for sustainability, we are actively engaging them in developmental problem solving and idea generating cognitive processes required for designing for sustainability in the real world. Building upon the existing strong infrastructure of assessment at James Madison University (JMU) during this effort, we will develop and use innovative assessment tools for outcomes assessment for designing for sustainability. Both quantitative and qualitative methods (surveys, questionnaires, design projects, observations, reflective journal entries, and design portfolios) will be used to evaluate students' design learning outcomes and growth in cognitive process development. The setting for this effort is six engineering design courses that span three years in our curriculum in the new engineering program at JMU.

Broader Impacts—In better preparing the next generation of engineers, we are addressing important needs identified in recent national reports. A curriculum-wide model, grounded on strong assessment, has the potential for replication and generalizability across STEM programs at JMU and nationwide, as well as providing students the hands-on learning experiences necessary for workplace application. Our dissemination plan includes conference and journal publications and workshops, as well as instructional workshops and instructional white papers that will lead to the employment of our methodologies in other STEM efforts at JMU.

Other scholarly activities:

Pappas, Eric C, J. M. U., Benton, Morgan C, "PersonalityPad.org", On-Going, Scholarly. (December 2010 - Present).

In contemporary organizational settings, professional development activities are commonly facilitated by multi-source feedback (also called "360-degree feedback"). Multi-source feedback reports provide insight about how individuals perceive themselves compared to how they are perceived by the people around them. Research has shown that the multi-source feedback process typically leads to greater evaluative accuracy and higher levels of participant motivation compared to supervisor evaluations alone. Surprisingly, these well-established professional techniques have not yet been adapted for personal development applications. Our specific purpose is to study the usefulness of multisource personality feedback for facilitating effective personal goal-setting and intentional self-development. Our broader purpose is to develop personal feedback methodologies that promote self-awareness, self-efficacy, and adaptive change.

Personal development applications in the current study relate particularly to an individual's ability to adopt a more sustainable lifestyle—in a variety of contexts (intellectual, social, psychological, environmental, philosophical, and economic). Such behavior is one of the themes of the PI's current NSF grant: IEECI: Integrating Developmental Instruction in Sustainability Contexts into an Undergraduate Engineering Design Curriculum (#0933948).
Personality Pad is up and running, and collecting data for a variety of studies. We will improve the site functioning this summer and add two projects to the site. Since the site is predominantly a research platform, we will encourage faculty to use it.

Biesecker, Amanda G, McGraw, David K, Benton, Morgan C, Tang, Jeffrey D, Daphyne Saunders-Thomas, C. o. B., "Who Teaches Ethics?", On-Going, Scholarly. (January 1, 2008 - Present).
This research is an empirical study of the educational backgrounds of professors currently teaching college- and university-level ethics courses in the U.S. The research suggests that most professors teaching ethics courses offered through philosophy departments have credentials in philosophy, but that the largest number of ethics courses are taught outside philosophy departments by professors who have no degrees in philosophy.

GENERAL COMMENTS

I felt I had a very good year. I think there are several accomplishments of note that I'd like to point to:

- I began a new research partnership with Eric and Jesse Pappas. In the pursuit of this I was able to get JMU to purchase API access to Qualtrics. With that we were able to build a website that led nearly 300 students in ISAT 160 through a guided self-reflective assessment of their personality characteristics. The particular form of assessment we used was called multi-source feedback, or 360° evaluation. This research was funded by a grant that I am on with Eric, and provided very positive results that we used in the preparation of a second grant to NSF for approximately $500K that would focus on increasing students' awareness, skills, and behaviors towards sustainability. Not only does the research have promise, but the online tools we've developed may have commercial potential as well.
- I made significant progress towards having a more mature model for a course that does not involve grades as part of the assessment regime. In the fall and in the spring I used semester portfolios in all of my courses. There were some spectacular success and spectacular failures, but on the whole I found the students' performance to be no better or worse than I would suspect using more traditional means of assessment. While I find these results disappointing, I'm developing a more nuanced understanding of the different motivational patterns under which students operate, and thus I'm better able to create pedagogical structures that anticipate these students' needs and respond to them better. I continue to work on the software tools that will allow me to monitor students' progress with much greater detail and regularity so as to be able to direct my attention to those students who need it most. I hope to have time to put a lot more work into that this summer so that I can test the new tools in the fall. The research that I'm conducting with Nicole Radziwill (for which we had two publications and a presentation this year), dovetails well with these pursuits.
- Being asked to deliver the keynote at the ISAT Mini-Symposium was truly the highlight of my year.

In short, I feel like there is a lot of synergy between my research and teaching, and that I'm developing a research program that will be both long term and very productive. I feel like the work that I've been doing is beginning to have an influence on those in my immediate and broader communities. This is very gratifying.

Name: Benton, Morgan C. Date: May 23, 2011

FACULTY ANTICIPATED ACTIVITIES PLAN FOR 2010 - 2011
(Will be the basis for Faculty Evaluation in 2011)

My number one priority for the upcoming year is to make a successful application for promotion and tenure.

Teaching Activities—45%

Courses I expect to teach: ISAT 252, ISAT 340, ISAT 348, ISAT 492, ISAT 493, ISAT 640 (in Malta Spring 2012). I'm planning significant upgrades to the online learning management system I've been developing as well as to the pedagogy that is enabled by that system. In particular, the successes I've had with using student portfolios for evaluation have motivated me to provide more formal support and scaffolding to students in their preparation.

Service Activities—25%

- Department Level
  - IHS faculty sponsor
  - Committees: C&I, Assessment, Foundations, IKM, Recruitment
- College Level
  - No plans
- University Level
  - Japan Club Faculty Sponsor
  - CFI TAP Consultant
  - Organizing study abroad trip to Japan
  - Asian Studies Minor Committee
- Profession
  - Journal reviewing
  - ASQ Software Division Region 11 Representative
- Community
  - Harrisonburg City Schools Gifted Advisory Council

Scholarship—25%

- Personal Sustainability Education with Eric Pappas and Jesse Pappas
- Beginning a book on grades
- Continued work on learning management systems designed to enhance learning by reducing/removing focus on grades
- Continued work on the Agile Organizing Framework for Education with Nicole Radziwill

Other Activities—5%

- Web consulting

FACULTY CONFLICT OF INTEREST DISCLOSURE

List any companies or organizations for which you have consulted this year:

List any companies which you own or in which you have significant financial interest:

Professional, Morphatic, "Owner", Own Company. (November 1, 2005 - Present).
Web hosting and development

List any other areas of potential conflict of interest that you would like to discuss in our annual review meeting: