

**Department of Integrated Science & Technology**  
**Faculty Activity Report**  
**2011-2012 Academic Year**

Please return this completed form electronically with any supporting documents to Cindi Wilson by Friday, May 25, 2012.

## TEACHING

Courses Taught (Summer 2011 – Spring 2012):

Course Number	Section Number	Semester	# of Credits	# of Students	Teaching Team Members (identify team lead)
ISAT 340	0001	F11	3	8	
ISAT 340	0002	F11	3	15	
ISAT 348	0001	F11	3	25	
GEOG 350*	0004	F11	3	1	
ISAT 348	0201	F11	3	1	
ISAT 492*	0005	F11	2	7	
ISAT 493*	0003	F11	3	1	
ISAT 131*	0002	S12	1	13	
ISAT 252	0001	S12	3	25	
ISAT 252	0002	S12	3	24	
ISAT 252*	0004	S12	3	26	<b>Morgan Benton</b> , Emil Salib, Zack Bortolot
ISAT 252	0005	S12	3	24	
ISAT 252	0401	S12	3	1	
ISAT 348*	0001	S12	3	2	
ISAT 480*	0008	S12	3	2	
ISAT 493*	0005	S12	3	9	
ISAT 640	MALT	S12	3	16	

1. A *Satisfactory* rating requires evidence that the faculty member is dedicated to their teaching responsibilities and performs reliably across their assigned courses. Attainment of this rating can be demonstrated by activities and achievements such as:
  - a) Commitment to assigned classes, e.g. thoroughness of class preparation, careful and objective grading, and timely return of tests and papers.
    - I've been developing online tools to help students manage their own learning from week to week, particularly through the use of weekly self-report surveys which help students set their own learning goals and monitor the progress of achievement, including the opportunity to reflect on their own failures to reach their goals and also on the successes and failures they have in managing the interactions of group projects. The graph below is an example of the type of feedback that is automatically generated by the system that I built. In the graph the box and whisker plots are the averages for the class overall. Blue is the time each week students said they intended to spend in outside preparation. Orange is the averages of the

time that students reported actually spending. The purple line is the individual trend line of planned time spent by the individual student. Green is the amount of time the individual student reported to have actually spent. Every student has his/her own personalized graph.



- b) Course organization, e.g. clearly defined course objectives; course content, syllabi, handouts, readings and/or textbook consistent with the course description; and course level and rigor consistent with student abilities and ISAT practice.
  - Extensive course syllabi can be found at the websites I've developed for my courses:
    - <http://isat348.isat.jmu.edu>
    - <http://isat252spring2012.umatter2.us/>
- c) Clear and effective communication with appropriate use of teaching resources.
  - I use extensively built course websites for course material delivery
  - I am highly available to students for one-on-one help with course material
  - I have continued to have weekly “hacking sessions” which are open lab sessions on Monday nights from 8pm-midnight. These are very well attended averaging around 20 students per week.
  - I also have TAPs performed in all of my classes each semester and discuss changes with students and use their feedback to alter course delivery mid-stream
- d) Mastery of the subject matter.
  - I am an expert web developer and instructional designer as evidenced by requests that I participate in two university-level committees:
    - Sarah Cheverton's committee to choose the successor to Blackboard
    - Carol Hurney's task force for choosing how to implement course evaluation with the new online tool that the university has purchased
- e) Acceptable student evaluations of classes over the period of review.
  - My students prepare extensive portfolios of their semester long efforts and summarize them

in reflective essays which describe the impact of the course on their lives. Please see the appendix for examples of student essays.

- f) Commitment to effective student advising when assigned duties as an advisor.
    - I mentored ten senior project students this year. All but one of them completed their projects successfully. I met with each student at least weekly if not more frequently. Most of them had successfully found jobs prior to graduation.
  - g) Positive attitude toward students, as shown by availability outside of class, assistance with student professional development, and jobs/ graduate school placement.
    - I wrote approximately five letters of reference for students this year and also participated in security clearance interviews for several more
    - I am one of the more available instructors and have a group of students who regularly use the space in my outer office to work on projects while coming to get help on specific questions
    - As referenced above, I run weekly hacking sessions on Monday evenings
  - h) Personal leadership demonstrated through self-initiative and follow-through with instructional tasks.
    - In collaboration with Emil Salib and Zack Bortolot I helped develop a new version of ISAT 252 that used the Python programming language instead of .Net. This innovation was made for several reasons including the flagging popularity of .Net in professional settings, and the growing popularity of languages like Python. Python also has much greater overlap with the types of skillsets required by Telecom concentrators and GIS students once they enter the professional world.
    - As referenced above, I've done extensive work in building new online tools to aid students in monitoring their performance in a course
  - i) Participation as a valued team member in team teaching, curriculum development, or instructional improvement activities.
    - In addition to the new version of ISAT 252 with Python mentioned above, I also did a number of guest lectures and provided outside support for students in Dr. Salib's telecom courses
2. To receive an *Excellent* rating, a faculty member should demonstrate vitality and innovation in their teaching, demonstrate commitment that goes beyond the classroom, and a notably high level of student engagement. The individual should show a dedication to teaching beyond meeting the satisfactory requirements. Attainment of this rating can be demonstrated by activities and achievements such as:
- a) Strongly positive student response to teaching, e.g. student-sponsored teaching awards, consistently above average student evaluations, or unusually positive alumni comments.
    - I was nominated for the CAP Make Your Next Move Award this year. Here is the text of the nomination written by ISAT student Andy Duong:

"I would like to nominate Dr. Benton for the Make Your Next Move Award because of his teaching ethics. Dr. Benton has shown me the importance of efficiency in and out of our academic lives. Dr. Benton separates the anxiety that derives from our lives and the whole learning experience. This separation produces an honest and effective learning experience because there is no forced effort to learn and regurgitate the material without an understanding. Since everyone has a different way of learning, Dr.

Benton allows us to gain an honest learning experience with our own pace. This concept has naturally been applied to all areas of my life, which is influential in my everyday learning."

- b) Peer recognition of teaching ability and commitment to teaching, e.g. JMU or externally sponsored teaching awards or exceptionally positive reports of peer observation of teaching.
  - I received an "Excellent" rating both from the PAC and department head for the Teaching section of my tenure portfolio.
- c) Evidence of instructional vitality, e.g. developing new courses, methods and materials; innovations in course content or methodology; and use of a variety of teaching methods.
  - ISAT 252 in Python (see above)
  - Web-based tools and extensive use of blogs in teaching (see above)
- d) Leadership in non-traditional learning experiences and activities, e.g. honors research, independent study, class projects, field teaching, etc.
  - Senior Projects:
    - UMMatter2Us. Mike Sliwinski, Alex Mastro, Matt Hurd
    - WPSOLR. Rachel Jacobson
    - True Dynasty Fantasy Football Projections System. Shaun Watson
    - SpotterCharts. Jason Farber, Adam Maas
    - ISAT Integrated Portfolio Analysis System. Brian Ford, Chris Gogoe
    - CheeChaCho Mobile App for Hunters. McKinnon Lang (unsuccessful)
- e) Quality teaching in a variety of learning contexts, e.g., special lectures, seminars, special studies, discussion groups, etc.
  - Organized and ran a summer study abroad experience to Japan
- f) Breadth in teaching expertise, e.g. the ability to teach a variety of subject areas, at the upper and lower levels, or courses for non-ISAT majors.
  - I taught ISAT 131 to freshman, ISAT 252 to sophomores, ISAT 340 to juniors, and ISAT 348 to seniors as well as leading numerous ISAT 492/493 senior projects
  - ISAT 252 Python was taken by a large number of GS and CS majors
- g) Publication of book chapters, textbooks, or teaching materials.
  - The plugin I'm building for WordPress is available here:  
<http://wordpress.org/extend/plugins/umatter2us/>
  - Although the plugin is not ready for prime time, it has received over 500 downloads and I've received a number of inquiries from teachers interested in using it from around the world.
- h) Presentations and publications on innovations in course content and teaching methodology.
  - None this year.
- i) Professional development through such efforts as:
  - Participation in workshops, conferences or similar activities devoted primarily to improving teaching methods and course content.
    - Member of the Provost's task forces on Academic Rigor, and also on implementing a new course evaluation strategy for the university

- Participating in regional and national pedagogical organizations.
    - I am a member of AERA
  - j) Leadership in teamwork, e.g. generating a spirit of teaming, building team consensus or capabilities, initiating teams that effectively address ISAT curriculum needs.
    - Dr. Salib and myself have greatly increased our level of collaboration between IKM and Telecom this year and intend to deliver a course on Mobile Application Development in the Fall 2012 semester.
  - k) Instructional leadership, e.g., the ability to initiate and execute constructive change in an ISAT, JMU, or external curriculum.
    - I was a TAP consultant in the fall although I took a break this spring due to a particularly heavy teaching load and the fact that I would be in Malta for two weeks.
  - l) Demonstrated instructional accomplishments that the PAC deems exceptional.
    - None.
3. A faculty member who shows serious deficiencies shall be rated as *Unsatisfactory*.

## SCHOLARSHIP

1. A Satisfactory rating requires evidence that the faculty member is continuing to learn and stay abreast of developments within his/her field. The activities listed below are examples of evidence that may be used to support a rating of *Satisfactory*. Attainment of this rating can be demonstrated by activities and achievements such as:
  - a) Membership in relevant professional and scholarly societies and organizations.
    - IEEE, ACM, AERA, ASQ
  - b) Participation in professional meetings, field conferences, and other scholarly gatherings.
    - Presented papers at:
      - AMCIS in Detroit, August 2011
      - Agile 2011 in Salt Lake City, August 2011
  - c) Research involving students in independent studies or within the Honors Program.
    - See list of senior projects above. The most relevant to my own personal research are the UMat2Us plugin I'm developing for WordPress and the ISAT IPA portfolio analysis tool.
  - d) Supervising student independent study and honors projects.
    - See above.
  - e) Presenting papers at regional meetings.
    - Benton, M. C., Pappas, E. & Pappas, J. (2011). WordPress+Qualtrics: A plugin supporting research and new pedagogy to develop personal sustainability via 360 degree evaluation. In *Proc. 17<sup>th</sup> Americas Conference on Information Systems*, Detroit MI, August 5.
    - Benton, M. C. & Radziwill, N. M. (2011). A Path for exploring the Agile Organizing Framework in technology education. Agile 2011, Salt Lake City UT, August 9, 2011. Available

from [http://nicoleradziwill.com/portfolio/BentonRadz\\_Agile2011AOF.pdf](http://nicoleradziwill.com/portfolio/BentonRadz_Agile2011AOF.pdf).

- f) Publishing in non-refereed journals.
    - None
  - g) Development of instructional or education materials.
    - See UMatter2Us above
  - h) Demonstration of professional development through such activities as:
    - None
  - i) Engaging in unpublished ongoing research.
    - I'm preparing a book-length treatment of arguments of why use of grades is inappropriate for educational systems. I sincerely hope to have a good first draft done by the summer of 2013.
  - j) Presentation of faculty seminars and colloquia.
    - None
  - k) Reviewing proposals for sponsored government, academic, or industry programs.
    - None
2. To receive an *Excellent* rating, the individual must contribute to the advancement of knowledge. An *Excellent* rating requires evidence from professionals external to JMU that the individual is recognized for scholarly contributions or professional expertise. Attainment of this rating can be demonstrated by activities and achievements such as:
- a) Demonstrated contribution to knowledge through a focused, goal directed program of research or other scholarly activity.
    - I'm working on building UMatter2Us, a plugin for WordPress that allows instructors to manage the learning experience for students in a way that is consistent with the scientific findings in the areas of motivation, psychometrics, education, positivity, and will power. This year saw major development on actual tools. In upcoming semesters it is hoped to begin using the tools to collect data which will support publication of findings indicating the role of the tools in helping foster higher motivation, more positive attitude, with a view to creating richer and better learning experiences.
  - b) Receipt of professional achievement awards, or other evidence that demonstrates external recognition of individual professional achievement.
    - Does tenure count?
  - c) Invited lectures and/or at national or international conferences.
    - None.
  - d) Publication of book reviews, discussions, and technical reports in one's professional area.
    - None.
  - e) Publication of books or monographs in one's professional area.
    - None.
  - f) Service as editor of a national or international journal or referee of papers for such a journal.
    - None.
  - g) Recipient of government or foundation grants, awards, or contracts.

- Research into Instructional Content and Methodologies for Teaching Sustainability.  
Submitted to NSF with Eric Pappas. Funded. \$431K
- h) Active research involving students and demonstrable through presentation or publication in a professional forum.
  - None.
- i) Publication of ongoing research and other scholarly activity in refereed national or international professional journals or serving as editor of a scholarly volume in one's field.
  - None.
- j) Presentation of papers at national or international professional meetings.
  - See 1E above.
- k) Initiating a successful grant proposal for external funding and/or directing the resulting project.
  - See 2g above
- l) Authoring textbooks or teaching materials.
  - U\_Matter2Us
- m) Professional consulting which reflects recognition of the individual's expertise.
  - I provide ongoing web development and hosting support to approximately 50 clients through my business Morphatic Hosting (<http://www.morphatichosting.com>)
- n) Other scholarly achievement, recognition, or professional development which the PAC deems exceptional.
  - None.

3. A faculty member who shows serious deficiencies shall be rated as *Unsatisfactory*.

## SERVICE

Professional Service includes activities that advance the mission of the University, the College, or the Department; activities that advance one's professional scholarly community; and activities that benefit society in areas related to one's professional expertise.

A Satisfactory rating can be attained through an adequate level of participation in activities such as those listed below. This must include an adequate level of service to ISAT. To receive an Excellent rating, the individual must be at least Satisfactory in performing the activities below, and must demonstrate a higher level of leadership, initiative, effectiveness, and consistency in service. A faculty member who shows serious deficiencies shall be rated as Unsatisfactory.

1. Service that advances the mission of the university, the college, and the department.
  - a) Serving and participating as a valued team member on departmental and program committees, task forces, etc.
    - Recruiting Committee Chair, 3 hours/month
    - IKM Team, 2 hours/month

- C&I Committee, 1 hour/month
  - Social Context Team, 1 hour/month
  - Note Taker at Department and ISAT Program Meetings, 2 hours/month
  - Assessment Committee, 6 hours/month
- b) Serving and participating as a valued team member on college and university committees, task forces, etc.
- College Teams / Committees:
    - None.
  - University Teams / Committees:
    - Provost's Task Force on Academic Rigor, 2-day workshop last June
    - Provost's Task Force on JMU Course Eval, 4 hours/month
    - Sarah Cheverton's Task Force to choose a successor to Blackboard, 1 hour/month
    - Served as a Preface facilitator in August 2011
    - Member of the Governor's 4VA Consortium to investigate how to best use telepresence to create degree completion opportunities for VA students
- c) Participating in public relations events and student recruiting.
- Organized the fall ISAT Recruiting Event
  - Created the design for the new ISAT T-shirt
  - Funded and helped organize Cindy Klevickis' bringing of students from Huguenot High School in Richmond VA
- d) Participating in grant proposals for external funding for teaching and equipment support.
- Consulted with Tony Teate to create a proposal for ETF funding to get tablet computers to teach mobile programming in ISAT
- e) Serving as a faculty advisor to student organizations.
- ISAT Honor Society Faculty Sponsor
  - JMU Japanese Language and Culture Club Faculty Sponsor
- f) Serving as a satisfactory student curriculum advisor.
- Mentored numerous senior projects
- g) Initiating and carrying out a program which leads to a significant increase in ISAT or JMU resources, or in ISAT's or JMU's ability to perform its mission.
- Received NSF grant to study how to teach sustainability, \$431K, with Eric Pappas
- h) A major service or office at the Department, College or University level.
- Elected to be the ISAT representative to the JMU Faculty Senate for next year
  - Elected to the PAC for next year
- i) Service leadership, e.g., the ability to initiate and execute constructive change in the ISAT program.
- Used funding won from the JMU Diversity Council during 2010-2011 (\$4000) to support activities to bring underprivileged minority students to JMU to stimulate their drive to get to college



- j) Other professional service which the PAC deems to be a leadership contribution.
  - None.
- 2. Service that advances one's professional scholarly community.
  - a) Serving as a referee or reviewer of scholarly articles or textbooks.
    - None.
  - b) Reviewing proposals for sponsored government, academic, or industry programs.
    - None.
  - c) Serving as an officer of a professional organization.
    - ASQ Software Division, Region 11 Coordinator.
  - d) Serving as an editorial member of a professional journal.
    - None.
  - e) A major effort conducting workshops, symposia, and training sessions in one's professional area.
    - None.
  - f) Other professional service to the faculty member's professional scholarly community which the PAC deems to be a leadership contribution.
    - None.
- 3. Service that benefits society in areas related to one's professional expertise.
  - a) A contribution which applies the resources of the University to solving a problem of local, regional, state, national, or international concern.
    - See above, used Diversity Council grant to bring minority youth to JMU
  - b) A major effort to solve a problem at the local, state, national, or international level providing a significant benefit to society and in an area directly related to one's professional expertise.
    - None.
  - c) A major service or office at the local, state or national level related to one's professional competence.
    - Chaired the Harrisonburg City Schools Gifted Advisory Council, a group of parents chosen to provide feedback to the School Board on the effectiveness of the HCPS in their use of resources to challenge gifted students
  - d) Other professional service directed at the betterment of society which the PAC deems to be a significant contribution.
    - None.

## GENERAL COMMENTS

Describe your most outstanding or satisfying activities for 2011-2012.

Without a doubt, earning tenure. Second to that, I'm extremely pleased with the progress that I and my students made on creating online tools for teaching and learning as part of the U-Matter2Us project. This past semester my energy was spent in developing the tools themselves, but over the next year I plan to find ways to measure the level of impact of those tools. My third satisfying accomplishment was being a part of the team that brought in a \$431K NSF grant for teaching sustainability. My interactions with Eric Pappas and the other research team members have proved to be some of the richest intellectual conversation I've had in a while.

Why do you consider these outstanding or extremely satisfying?

Tenure represents for me the freedom to pursue my work on grades without fear of repercussion (at least threats to my job) that I felt prior to getting tenure. Not everyone on my academic team is thrilled about the work that I'm doing and I have held back in some respects because of that. I've continued to read in more related areas and the science lines up from pretty much any angle you approach the question: grading is a practice that has run its course and it's time to come up with a different way to practice assessment and communication about student performance. At the same time, finally seeing some forward progress on my web-based tools is extremely gratifying. I have noticed a difference in the way that my ISAT 252 students responded to my approach this spring and I give a lot of credit to the online tools. I'm looking forward to finding a way to capture this difference more systematically.

What do you feel we have accomplished, as a Department, in 2011-2012?

There are a few areas that I could comment on. First, I think the work of the Upper Division Task Force on the ISAT Habits of Mind has been first rate, and I'm excited to see the direction in which that work is moving. I think that the experimental sector on the global water crisis yielded a lot of interesting insights into how we might move forward with a truly integrated approach to our subject matter. Second, I was really happy to see the work that Maria Papadakis was spearheading on increasing the female enrollment in our program. I'm not sure how far that work progressed, but I think it should be a priority for us moving forward. It's hard to describe and quantify the impact that gender (and other) diversity has on a program, but we should be striving to create a program that is inviting to many different types of people and Maria's work highlights the fact that we are not. Third, I am happy about the changes made to the tenure and promotion guidelines and the efforts to bring annual evaluations in line with those guidelines as well. Finally, I was really happy that we initiated the mini-symposium on teaching and learning that we had in May of 2011. It makes me feel like I'm in the right place to be in the midst of a group of faculty who are actively questioning how we teach and how students learn.

What should our priorities be for improvement, as a Department, for 2012-2013?

Following from the previous question, continuing the work of the Upper Division Task Force should be a priority, as well as continuing the work to increase the diversity of our students. I've also begun conversations with Drs. Salib and Radziwill and we feel that it may be an opportune time to take advantage of the synergies between Telecom and IKM and combine them into a single academic team. So far we've been playing with names like Data Acquisition, Transmission, and Analysis (DATA), which pretty much covers the spectrum of what we focus on in our coursework. We have ideas for a unified curriculum that could span the entire four years of the degree program. More details will be forthcoming as our conversations progress.

Suggested Discussion Topics for the August 2012 Summit:

I have no strong feelings about this.

**FACULTY ANTICIPATED ACTIVITIES PLAN FOR 2012 - 2013**  
**(Will be the basis for Faculty Evaluation in 2013)**

1. Teaching Activities  
Percentage of Load: 40%  
Classes to be taught:  
Fall 2012: GISAT 160 (1 section), ISAT 340 (1 section), ISAT 348 (1 section)  
Spring 2013: ISAT 252 (3 sections), ISAT 640 in Malta (1 section)
2. Professional Service Activities  
Percentage of Load: 20%  
Department committees, roles, rough effort levels (hours/month):  
C&I member, .5  
Assessment member, 5  
PAC member, I don't know but I hope it's not too much  
Minutes Taker at Program/Faculty meetings, 2  
  
College committees, roles, rough effort levels (hours/month):  
None  
  
University committees, roles, rough effort levels (hours/month):  
Faculty Senate, 1  
Replacement to Blackboard Task Force, .5  
Student Evaluations of Teaching Task Force, .5  
  
External committees, roles, rough effort levels (hours/month):  
Harrisonburg City Schools Gifted Advisory Committee Chair, 2
3. Scholarship and Professional Development Activities  
Percentage of Load: 40%  
Projects or other efforts, roles, rough effort levels (hours/month):  
Sustainability Grant, Co-PI, 10  
UMatter2Us, PI, 20
4. Other Activities  
Percentage of Load:  
Description of Activities:

**FACULTY CONFLICT OF INTEREST DISCLOSURE FOR 2011-2012**

1. List any companies or organizations for which you have consulted this year.
  - a. Britt Communications, work on college football spotter charts
2. List any companies which you own or in which you have significant financial interest.
  - a. Morphatic Web Hosting
3. List any other areas of potential conflict of interest that you would like to discuss in our annual review meeting:
  - a. None