

**CENTER FOR TEACHING EXCELLENCE
VIGNETTES OF 2005 FUNDED PROJECTS**

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The purpose of this project, *Chemistry Curriculum Remodeling*, was to find time for the entire department to meet for brainstorming sessions on curriculum reform. During the 2004-2005 academic year, the members of the Department of Chemistry began a critical examination of the curriculum of our undergraduate programs. We believe our current approach is a lockstep one with little flexibility and limited opportunities for such educational experiences as semester's abroad or academic internships. We used support from CTE to sponsor two half-day departmental meetings to remodel the curriculum to reduce the rigidity of the sequence of courses while preserving the scientific rigor of the program. The result of our discussions is a framework for a new curriculum that is project/inquiry based with a high degree of independent research on the part of the student as being integral to the educational experience. Awaiting further discussions is the final delegation of specific learning objectives to individual courses.

Stephen Beecher, Cheri Boyd, Beverly Brown, William Hallahan, Richard Hartmann, Heather Ames Lewis, Kelly Molkenthin, Lynn O'Brien, Matthew Temple

The purpose of this project, *Exploring Interdisciplinary Questions in Mathematics and Science*, ... [vignette coming soon]

Daniel Birmajer

The purpose of this project, *Assessing the Math Major: Servicing Undergraduate Research in Mathematics*, was to pilot the idea of providing students interested in math graduate school with an opportunity for a disciplinary internship of sorts that would allow them to gain experience with independent work and original research. The purpose of the pilot was to document and assess the value of providing such support—both pedagogical and financial. This pilot (with one student) allowed the selected student to research problems that involved advanced mathematical and computational tools, work that reveals creative and sophisticated thinking, passion for mathematics, and has allowed her to present her research at four disciplinary meetings, both local and international. Further, the success of the pilot was significant not just for the individual student, but for the department as well. It is hoped that the results will serve as a basis for the development of a new course—Undergraduate Research in Mathematics.

Daniel Birmajer, Cheri Boyd, Beverly Brown, Lynn O'Brien, William Lammela

The purpose of this project, *The Sprout Project*, was to involve undergraduates in open-ended research projects, involve our students in interdisciplinary projects, and to build stronger ties between faculty in mathematics, chemistry and biology. During the Spring

2005 semester, the faculty members mentioned above incorporated projects into their classes that used sprouts as a focal point. We wanted to create the opportunity for students to be scientists conducting open-ended research project as members of interdisciplinary teams. The projects included growth and development of plants, applying calculus and mathematical modeling techniques to describe growth patterns, comparing organic sprouts and commercially grown sprouts for evidence of genetic engineering, and quantification of minerals, calcium and iron as species vary during plant development. During the summer of 2005, we reflected on the results of these activities and analyze data we collected on the effectiveness of our projects. We realized that while one of our primary goals was to foster interdisciplinary discussion, we had not successfully created these opportunities. We reorganized our fall classes to pair math and science classes and create research teams consisting of cross-disciplinary members. We explored alternative methods for growing sprouts and developed better methods for detecting Vitamin C levels in sprouts. We implemented these new approaches in Fall 2005. We also presented information on the sprouts project at the annual meeting of the Botanical Society of America during the summer of 2005 and conducted a K-12 teacher workshop this fall. There will be additional workshops and presentations during Spring 2006.

Doot Bokelman

The purpose of this project, *Reinvention of AHI 160G (a PI global art history course) and Reinstating AHI 383 (a PII art history course)*, was to research and compile information for a revised PI course on non-Western, non-Asian art history. The project required that Doot scour dozens of books, journals and encyclopedias for data and information on cultures, materials, techniques and functions of the arts of people taking into account the larger context of the makers' cultural practices and historical importance. She traveled to New Mexico where she researched first-hand pre-Puebloan rock art and cliff-dwelling architecture as well as enrolled in a Russian Icon Writing class in Santa Fe. Doot reports that the experiences she gained through these various activities will have an impact not just on the new course she will teach, AHI 160G, in Summer 2006 but also in the other courses she teaches as well. She plans to give a faculty colloquium on the subject in Spring 2006.

Scott Campbell (two projects)

The purpose of the first project, *Travel to Australia on a Fulbright-Hays Grant*, was to learn about Aboriginal culture and politics so that Scott could develop a curriculum project based on the Aborigines and integrate that project into his course on ethics. Scott returned home from the seminar with a number of different kinds of pedagogical materials, including books, articles, videos, and artifacts. He is currently in the process of developing a formal curriculum project, "Justice and Human Nature in Aboriginal Australia," for the Fulbright Commission, which will incorporate texts from and about aboriginal people and ultimately become integrated into a course in ethical theory.

The purpose of Scott's second project, *Travel to Boston to Work on a Documentary of Dr. William Richardson, SJ*, was to pilot an idea for a documentary film about the life and work of William J. Richardson, a Jesuit philosophy professor and practicing Lacanian psychoanalyst who teaches at Boston College. As part of this project, Scott traveled to Boston and did a great deal of filming for the documentary, including interviews with Father Richardson and interviews with people on the street on a range of philosophical issues/questions such as the nature of truth, faith, religion, and the media. Once the entire pilot is complete, Scott is hoping to find external funds to broaden the documentary.

Mary Carlson

The purpose of this project, *Implementation of Curricular Revisions to Incorporate Electronic Portfolios in Music Education Courses*, was to explore the possibility of learning more about electronic portfolios (and how to use them effectively) by meeting with and interviewing a music professor who has already implemented electronic portfolios in music education classes. After meeting with this faculty member—who shared an assortment of materials with Mary, including course syllabi, sample portfolios, rational, etc., Mary was able to imagine how electronic portfolios could be incorporated into her existing music education courses, thereby providing Mary's students with another way to show their creative abilities while also providing an overview of what they have experienced as a music education student at Nazareth.

Mary Carlson, James Douthit, Bryan Hunter, Mario Martinez, Thomas McGary, Marjorie Roth, Beverly Smoker, Rachel Whitcomb, Carl Wiens, Mark Zeigler

The purpose of this project, *Curriculum Review and Revision*, was to revisit and revise the music curriculum while providing Music faculty with an opportunity to become more familiar with the degree programs offered in the department. To accomplish this, Mark organized a two-day workshop for the full-time music department faculty, which generated long and fruitful discussions as well as a fairly extensive list of possible revisions. Some revisions actually went into effect immediately, while others will be implemented over the next academic year. Most exciting was the input they gleaned from their students. All in all, it was a highly successful project.

Connie Chau, Jennifer Collins, John Love, Joni Mowder, Annette Willgens

The purpose of this project, *Integration of Adult and Pediatric Based Curriculum Working Towards DPT*, was to take advantage of community resources and the opportunities afforded by having an on-site clinic at Nazareth College. To accomplish this, a group of five faculty (some whose primary job was not at Nazareth) met one to two times per week over the summer months to review common course objectives,

consider and create a master schedule, and create communication and teaching methods. Thus far, they have created and are implementing an integrated schedule including on-site, off-site, and pediatric center experiences. John says it is still very early to tell, however, students appear to embrace the similarities and differences of adult and pediatric neuro-therapy while also being able to experience these populations directly in clinic and off-site experiences.

Scott Dahl

The purpose of this project, *Retaining Knowledge of Visual History Through Accessibility and Application*, was to re-design the course material for Theater Arts 232: History of Period Styles, which examines the architectural, artistic, and cultural climates of particular periods of history. Scott's primary goals were to provide web-based accessibility to visual images and to prepare course exercises to apply the visual history to practical projects. Accomplishing these goals required that Scott develop a syllabi based on past lectures and out of print textbooks, while also creating a database of resources and visual images as well as brain-storming about possible projects that could be used to apply information derived from a study of visual images of period architecture and furniture. Although considerable progress has already been made, Scott does not expect the project to be entirely completed until Spring 2006 semester but continues to modify and re-shape the images he has assembled. Already it has become apparent that the web-based visuals provide easy and exciting access to the material and an avenue for repeated visits to the images. Eventually, Scott hopes to create Power Point presentations that will be stored in the Blackboard course companion site to help "illustrate" his lecture outlines.

Jerry Denno and Adrielle Mitchell

The purpose of this project, *Reinvention/Update of English 357W: Theories of Grammar and Composing Process*, was to bring the learning objectives, readings and assignments of this critical course in line with current research in sociolinguistics, writing pedagogy and rhetorical studies. English 357W is required of all English majors seeking teaching certification and has traditionally focused on prescriptive and descriptive grammars, as well as writing process techniques. Typically, students develop their own writing skills and grammatical knowledge while simultaneously developing sound pedagogical methods for their future work in the teaching profession. With the help of this grant, the instructors were able to thoroughly critique and refine the curriculum of this course, which has gone largely unchanged over at least the last decade. We reviewed textbooks in grammar, rhetoric and sociolinguistics and compared them to those we currently use. We researched contemporary rhetorical theory and carefully studied best practices in writing pedagogy. We conducted interviews with local colleagues teaching similar courses and gathered syllabi from a wide range of colleges offering courses similar to Theories of Grammar. We compared learning objectives, writing assignments and methodology, and then set about building a coherent, cohesive course that would serve

the needs of 21st Century English educators. This resulted in a significantly revised syllabus, including the replacement of two of three textbooks, the creation of more challenging and appropriate assignments, and a recasting of class activities and discussions to form a more synthetic course. We thoroughly enjoyed having an opportunity to engage in this fruitful project, and look forward to implementing the revised course in 2005-2006.

Staffan Elgelid

The purpose of this project, *Development of a 1) Health and Wellness and 2) Cardiopulmonary concepts course for the transitional Doctorate in the Physical Therapy Program*, was to develop a class for the transitional DPT program. To accomplish this, it was necessary for Staffan to survey potential students as well as confer with faculty who have offered similar courses at other institutions. Staffan spent the summer in consultation with colleagues who have taught similar courses, which resulted in a course syllabus that he hopes to pilot in Spring Semester 2006.

Shannon Elliott and Karen Trickey

The purpose of this project, *Learning LiveText: Making the Shift from 3D to Digital*, was to increase our knowledge of and facility with Livetext. (Livetext is a new online system purchased by the School of Education to serve programs, faculty and students). To accomplish this, we reviewed the various components of the online system and determined the specific modifications, schedules and policy required for implementation within the Nazareth Art Education program. Thus far, we have completed our inquiry by interviewing other faculty regarding Livetext implementation, digitally photographed and uploaded 4 student portfolios, collaborated with the Media Center to convert a teaching video into an Imovie for Livetext, and sought expertise from a computer graphics artist. In addition, we created templates for each program in art education and determined the schedule for implementation. We concluded that due to Livetext's linear format, it is not appropriate to attempt to duplicate the traditional visual arts education portfolio. Therefore, students will continue to create traditional portfolios. We determined that it is best to utilize Livetext as an electronic portfolio tool, based on its own merits. This electronic portfolio will be referred to as the Livetext Companion Portfolio, and will also be used as a developmental portfolio as part of their coursework.

James Feuerstein

The purpose of this project, *An Integrative Systems Approach to Teaching Hearing Problems and Testing*, was to develop course material for CSD 437. The traditional outline of this course forces compartmentalization of information, which often makes it difficult for students to make the necessary connections. An integrated approach would provide students with a better overall and practical understanding as well as better insight

into the process involved in hearing. The primary resource Jim needed was time and the course materials are now completed and are presently being implemented.

William Hallahan

The purpose of this grant, *Conservation of Biodiversity in Greenspaces and Small Parks*, was to develop a teaching protocol for studying greenspace ecology. Greenspaces are pieces of real estate protected from development by zoning regulations and provide both recreation fields as well as wilderness for the surrounding area. Goals of greenspace designation rarely include biodiversity conservation; instead, they are justified for economic savings, landscape beautification or storm water control. Greenspaces have potential as biological reserves but have received little attention by ecologists. The project began in June when Bill and a student hiked through and collected data from a number of greenspaces. Using GIS technology, maps and habitat inventories were constructed for seven greenspace properties in the Town of Pittsford, which enabled them to develop a protocol that will be used in Conservation Biology. The same student and another student are now expanding with a follow up inquiry that compares greenspace metrics (such as biodiversity, stream water chemistry, and specific animal and plant indicator species) with other development plans (Mendon and Henrietta). Students will use these data and the recently developed protocol as part of a long-term study to assess the value of greenspaces as sites of species conservation.

Timm Knoerzer

The purpose of this project, *Fall Semester Laboratory Project: Flavonoids from Plants*, was to expand the scope of discovery/inquiry-based research experiences for students in their first semester of Organic Chemistry. By consulting with Dr. William Lammela regarding an on-going research project investigating the amount of resveratrol in wine, Timm was able to determine how his students might interface/assist in the project while simultaneously learning critical organic laboratory techniques. At this point he has devised two mini-projects that Organic Chemistry laboratory students can engage in to directly enhance the research process for Dr. Lammela's team while providing his own beginning Organic students with an enriched learning experience where they can gain expertise in chemical separations (extraction and chromatography) as well as conduct synthetic experiments that provide Dr. Lammela's group with needed pure chemical standards used in the analysis of wine extracts.

William Lammela

The purpose of this project, *Quantification of the Anti-oxidant Resveratrol in Finger Lakes Wines*, was to involve students in an investigation of the levels of resveratrol in wine. Working with four students during this past summer, Bill was able to complete analyses of the effects of micronutrients on yeast fermentation of grape juice as well as

create a library on resveratrol levels in wine. One of the big surprises of the project was the discovery that Pinot Noir wines have the highest level of resveratrol and that the vintage made a difference. The students were excited about the project (three of the four will continue to work with Bill) and the weekly meeting became a good time to talk about science and other issues. This project also has resulted in discussions with colleagues and has become the catalyst for a new course that will be offered to Although Bill admits he worked more hours this past summer than most, he is seriously considering similar research in other summers.

Thomas Lappas

The purpose of this project, *Exploring the Erie Canal: Experiential Learning in New York State*, was to explore the feasibility of teaching a summer course on the history of the Erie Canal that would take students on an Erie Canal bicycle trip for two weeks as a portion of the six-week course. To avoid unpleasant surprises, planning the course required that Tom take the potential route while making contacts with the directors of several sites along the route. This past summer, Tom rode the length of the Canal Path, visiting as many historic sites, museums, and interpretive centers as possible. While pedaling away, he mulled over the logistics of having 12 students riding 350 miles from Albany to Buffalo and began selecting textbooks for the course. Tom has been able to anticipate potential problems and planned a route he thinks will be sufficiently adventurous *and* sufficiently safe for students from a variety of cycling backgrounds. As a result of his journey, it became clear that when the course is offered this summer it would need to focus on the Rochester region, between Palmyra and Lockport. But at a later time when construction along the canal is complete, Tom hopes to offer students an opportunity to explore an even longer section of the Canal as they explore its history.

Heather Ames Lewis

The purpose of this project, *Web-Based Resources for Thinking Mathematically*, was to create a set of web-based resources for faculty and students to use in Math 102 (Thinking Mathematically). To accomplish this, Heather collected relevant online materials, written supplemental sheets, and organized everything by topic. Thus far, she has been collecting and writing the information and will be testing it in her classes this fall. With an interesting note, Heather found the material itself was what she expected, but that Blackboard was much better suited to organizing and distributing information than her home page. They now have a central Blackboard account for the instructors in Mathematics where material can be stored and then transferred to individuals.

Marcia Miller

The purpose of this project, *Development of Distance-Learning Course for New Health Science and Services Program*, was to develop a distance-learning course on diagnostic

imaging for the transitional DPT program. Marcia purchased text resources that were needed to develop the course content and a library of diagnostic images from a local radiologist who utilizes advanced diagnostic imaging in his practice. While working on this project, Marcia expanded her vision of the final product. Her decision to place the images on a CDROM as a reference tool for students changed to creating an interactive CDROM for more dynamic, active learning. Thus far, she has made contact with a colleague at RIT, who has recently produced a similar product, and is arranging a connection with a computer software expert. There is also ongoing work with the radiologist. Although still a work in progress, the grant has allowed Marcia to explore avenues with potential for reaching beyond the original intent of the project.

Adrielle Mitchell, Ginny Skinner-Linnenberg, Joseph Viera, et al

The purpose of this project, *Revamping of the College Writing Program*, was to create a context for coordinated planning and revision to a program for a large and diverse faculty that include significant numbers of part-time faculty. Funding covered two workshops for faculty and books to start a library on the topic of teaching writing. As a result, they have begun the semester with the new curriculum, utilizing a common diagnostic essay to determine skill levels of the students and to move students who may need to be in a more suitable course for their skills. The curriculum is better defined, actually outlining specific and distinct goals for both ENG 101 and 102 and ensuring consistency across the sections of ENG 101. These more defined goals and objectives for College Writing can now be shared with the College community in general.

Marjorie Roth and Carl Wiens

The purpose of this project, *New Team-Taught Course in Music History & Theory Since 1900*, was to create a team-taught class that covers the repertoire and issues of music since 1900 in enough depth to prepare our students for teaching careers, or for graduate school. To accomplish this, Marjorie and Carl spent time over the summer setting up the class, sketched out the general goals and content of the new course together, then worked independently in their separate areas of expertise reading textbooks, choosing repertoire, and surveying syllabus ideas that are being considered by colleagues from other schools who are trying to create the same kind of class. In November they will meet again, plan the syllabus week by week, choose assignments and evaluation methods, and agree upon specific pieces of music to be assigned for listening. Perhaps their most “interesting” result so far is that they have both noticed that even with an entire class devoted to the music of this time period, it will be a strain to cover it all in one semester!

Matthew Temple

The purpose of this project, *Summer Technology Focus Group*, was to convene eight faculty and additional College technology experts to demonstrate practical ways that

computer and media technology are being used in teaching at Nazareth, and to discuss how faculty could creatively design new applications and obtain funding through the College's technology proposal process. The two-day program provided ample time for participants to show how their students use technology in satisfying and innovative ways, and for faculty to discover how these applications can cross disciplinary lines in collaborative and enjoyable ways.

To accomplish this, we met on June 14 and 15 for daylong sessions. Participants shared six different applications of technology, including student movie-making and graphics design, satellite-base global positioning systems, student authoring software, evidence-based practice in health sciences, and videoconferencing as a learning tool. These sessions were informal, collaborative and informative. They also provided a practical foundation for an interdisciplinary brainstorming session, where participants paired off to outline new technology proposals emerging from the focus group discussion, and then presented their proposals to the entire Focus Group.

Thus far, three of the Summer Focus Group participants were associated with four new faculty Technology Proposals submitted during the fall of 2005. These proposals present creative ways of bringing new technology into student and faculty hands on campus. Two of the Focus Group participants submitted Faculty Summer Research Grants for the summer of 2006, drawing upon technology and teaching applications shared during the Focus Group. One of the faculty participants used ideas from the Focus Group to collaborate in writing a major grant application for computer and media technology in student learning. An additional Nazareth faculty member, although not part of the Focus Group, submitted a Summer Teaching Grant for 2006 based in large part on an interdisciplinary and collaborative idea that emerged during Focus Group discussions. During the fall of 2005, a proposal for a Nazareth Technology Resource Center, for faculty and staff, was drafted by three Focus Group participants as a direct result of demonstrations and discussions during the Focus Group. Furthermore, all participants have reportedly continued to explore new ways of using technology with their students to discover and communicate ideas during the current academic year.

With the following interesting results: The Focus Group participants will report the final outcomes of their new teaching ideas and applications as well as their success in obtaining College and external grants, based on Focus Group activities, in May 2006. In the meantime, last summer's Focus Group has led to designing a second Focus Group for the Summer of 2006, which will literally be focused on imaging technology in teaching and learning. This promises to be visually, intellectually and professionally stimulating. The most important benefits of the Summer 2005 Focus Group may not be evident for at least another year, as grants materialize and the College examines the prospects for a Technology Resource Center for faculty and staff.

Jennifer Wilson

The purpose of this project, *Designing PTR 707-Strategies for Successful Business Management in Physical Therapy*, was to develop a set of comprehensive case studies, which would integrate multiple dimensions related to the contemporary and emerging Administrative role in Physical Therapy. To accomplish this Jennifer needed to design a case study template; determine the most 'typical' practice settings to investigate; examine general & contemporary issues/challenges related to these practice settings; develop a broad contact list and begin the data collection process (e.g., interviewing folks via email, telephone, face-to-face). Although still largely in the time-consuming data collection process, Jennifer notes it has also been a useful process, which has provided her with comparative insights into the issues/challenges outside NYS. She has been especially interested in differentiating and identifying those issues and challenges that seem to remain constant irrespective of the setting from those that are more likely to differ by context. Eventually Jennifer hopes that these case studies will be used in a new distance-learning course that will become a part of the new t-DPT program.

Edward Wiltse

The purpose of this project, *Increasing the Interconnections and Opportunities for Linked Courses*, was to develop a new set of guidelines for linking sections of FRS/ENGC 101. To begin the project, Lynn O'Brien and Ed Wiltse worked together to recruit faculty to teach under the new guidelines, which were implemented in Fall 2005. Our goal was to develop more effective goals and strategies for making the linkages meaningful to student participants and pedagogically effective. The new guidelines include coordinated activities and assignments, and a greater emphasis on the shared goals of the linked sections, and how those goals relate to the broader goals of the Core Curriculum. Based on the outcomes of this pilot, the project coordinators were able to secure funding to continue to support instructors who are taking on the additional work of teaching linked sections, and prepared a special contract to be submitted to the VPAA. Initial responses from instructors have been very positive, not only to being funded for this project, but also to their students' reactions to being in meaningfully linked classes. They are currently developing an assessment tool, to be administered alongside the standard FRS course evaluation, to measure the effectiveness of the linkages and will know more about the results after the first set of course evaluations are in.

Brian Witz

The purpose of this project, *2-Semester Hybrid Courses in Human Anatomy and Physiology*, was to create an online/distance education version of Biology 150. In doing so, Brian hopes to create an option that might make it possible for retaining students who historically have been lost to other schools during Summer Semester. Brian spent the summer modifying his syllabus so that the lecture portion of the course has been converted to the distant education format. He now has a course packet that he hopes to offer in Summer 2006.