

Inventory of Principled Problem Solving Activities

During the 2005-2006 academic year, faculty and staff were asked to submit existing principled problem solving activities within their classrooms and departments. Over 70 responses were received, representing every academic division, a variety of staff departments, and a multitude of Guilford-affiliated programs and activities. This inventory reveals that Guilford's core values are at the very center of our approach to problem solving, both in the classroom and in our greater community, locally, nationally and globally. It also reveals how each faculty member conceptualizes use of their knowledge, skills, and life experiences to personally support students' growth and how each ultimately contributes to the transformative Guilford education. The edited descriptions and reflections are largely in their own words.

ARTS

Adele Wayman, Art Department

Course: Sacred Images, Altars and Rituals

As part of our exploration of a wide variety of religious beliefs and expression in Sacred Images, Altars and Rituals course (an Interdisciplinary Studies 400 course); we invite interested faculty and students to an exhibit of the images and altars. The focus is on openness and tolerance. Students might create a community altar for world peace.

Core Values Served: Community, Diversity
Students participating in the Sacred Images class are able to explore diversity through the study of different religious beliefs. This exploration culminates in an expression of world peace through the creation of a community altar.

David Newton, Art Department

Courses: Sculpture II: Art and the Environment
3D Design

This term, our Sculpture II: Art and the Environment class participating in Earth Day at the Kathleen Clay Edwards Family Library with an exhibit of their work.

The Cardboard Boat race is a regular part of each *3D Design* class and requires technical knowledge in design, imagination, and serious teamwork to be successful.

Core Values Served: Stewardship, Community
Community relationships are strengthened as an Art and the Environment class participates in Earth Day activities with an exhibit of their work at a local library. Their work incorporated recycled materials and elicited questions about environmental stewardship.

Maia Dery, Art

Course: Photo II
Activity: Photo Club

The Photo Club has been involved in collecting student photographs that were auctioned off as part of the Hurricane Katrina Benefit Art Auction downtown.

Photo II students write a "Mentorship Journal" which counts as a significant part of their final participation grade. It promotes self-reflection and personal growth. The Journal Assignment is as follows:

You all share this environment: The Guilford College Photo Lab. You share it with me, to a limited extent but, most of all, you share it with one another. In the 112 days that make up this semester you will keep a journal of how you contributed and impacted your community and the environment you all share. It will be a narrative of your meaningful interactions with the people and objects that make up your environment. It will be the story of how you participated positively and an honest, forthright account of how you failed to do so. Effective, meaningful photography takes significant effort: physical, emotional and intellectual. As you reflect on your efforts, note one description of *a community*: "an amalgamation of living things that share an environment." Also keep in mind the core values of diversity, equality, and integrity.

Core Value Served: Community, Justice

Through journal assignments, students examine their own impact on the community as well as their own integrity as they progress with their projects and their work with each other. These journals also ask students to be mindful of their environment and to respect it. Student participation in the auction had a direct impact on the recovery efforts for the survivors of hurricane Katrina. The sharing of resources and opportunity exemplifies the value of justice.

Wendy Looker, Lecturer in Music

Activity: College Choir

The College Choir challenges each singer to engage in the physical and mental activity of ensemble singing. Each singer's dedication, concentration, preparedness and skill contributes to the communicative success of the ensemble. The literature presents students with a variety of languages, cultures, and historical periods. Outreach to the community happens consistently and on many levels. The Choir presents a free concert to the community each semester. Throughout the year, the choir performs at College Meetings for Worship, area meeting houses, Friends Homes, churches, alumni and other campus events. Most recently, the College Choir joined choral ensembles from Bennett College, A&T and UNCG to participate in a Spiritual Festival at First Baptist Church in Greensboro. A clinician worked with each choir separately and then together to provide them with a better understanding of the history and stylistic performance of the African American spiritual.

Core Value Served: Diversity, Community

Choir members work with the core value of diversity as they present works from different cultures and diverse languages. Performances and outreach efforts contribute to not only our community at Guilford College, but also foster relationships in the greater Greensboro area.

Craig Whittaker, Music

Courses: Music and Social Conflict
Jazz Appreciation

Music and Social Conflict (MUS 119): After studying World Wars I and II, the class divided into three groups of six students each, and they addressed four questions I put on the board that had

them trying to reach group consensus about the inevitability of another world war and how we might all work to help prevent one.

Jazz Appreciation (MUS 110): The class tackles the issue of race relations in the United States, and addresses it through a discussion of how jazz music has helped/hindered race relations from the early 1900s to the present. Students discuss how we have developed into a nation that values certain aspects of our integrated culture but does not follow through with policies or actions that reflect those values.

Core Values Served: Community, Diversity
These courses examine issues of equality and diversity within the framework of music. By studying past conflicts in both the U.S. and the global communities, students look at ways to avoid future wars as well as having discussions regarding race relations.

BUSINESS AND POLICY STUDIES

Raymond Johnson, Accounting

Courses: Tax courses (Accounting 321 and 322)
Introduction to Accounting

In my tax classes, Accounting 321 and 322, students research tax situations that the IRS has questioned or may question. Many of these are actual situations that have gone to Tax Court because the taxpayer and IRS have disagreed on the correct treatment of the item. Students must research the tax law, tax cases, and IRS publications to reach a conclusion as to how they should proceed. I believe an excellent application of PPS is to be able to discuss these situations intelligently with the IRS and be able to reach agreement as to the treatment of the item or the taxpayer or IRS can take it to court. However, most importantly, I try to stress that just because the IRS said it, does not necessarily mean they are correct. I would hope my students would be able to apply knowledge obtained through this exercise to real life situations involving taxes when they later become professional accountants.

In my Introduction to Accounting course (Accounting 201) we discuss ethical situations in accounting and what is right and wrong in certain situations involving the preparation and use of accounting information. The more familiar cases involve companies like Enron and WorldCom. I try to impress upon the students that they need to be aware of these fine lines and be able to objectively reach decisions as to how they are going to proceed in handling the situation. Students of accounting also need to be aware of laws affecting the preparation of accounting information. The best example is the recent Sarbanes-Oxley law that requires accountants to attest to the reliability of accounting information.

Core Value Served: Integrity, Stewardship
In these examples, students not only learn about responsible financial and organizational stewardship in their accounting classes. Integrity is also key in accounting practices; students learn to be aware of these situations and how ethics can and should be applied.

Art Boyett, Visiting Professor of Accounting

Courses: Accounting courses

In accounting classes, I assign problems of various lengths (from 20 minutes to several days of work) in which students have to determine, from a set of facts: (a) what is required to be done, (b) which of the facts given apply to the solution, (c) how to organize the material to form an answer, and (d) how to report the answer to a person who will be evaluating their performance. These types of problems are quite similar to the types of work that the students will be expected to perform successfully when they go to work in accounting or other areas of business. I also assign cases in which students are given the facts of ethical situations that are similar to those that they will face at work and ask them to analyze the situations and determine how they would act in the situations and also determine how their actions would affect other parties.

Core Values Served: Integrity, Stewardship

By offering students "real-world" problems to solve, this class offers students practical experience as they tackle issues of financial stewardship. Similar to the previous example, students are asked to look at the ethical aspects of situations, focusing on integrity.

Barton Parks, Justice and Policy Studies

Courses: Restorative Justice

Restorative Justice course: With feedback from community and academic sources, students in small groups creatively design a restorative justice approach to solving what, in criminal justice terms, would be called a crime. In class during the roleplay, those most affected by the crime/harm gather informally and learn to listen and speak to each other respectfully and honestly.

Core Values Served: Community, Justice

Studying restorative justice allows students to examine issues of justice in the community and learn alternative methods of addressing issues in the criminal justice system.

Will Pizio, Justice and Policy Studies

Summary

- Problem/Issue: Myths surrounding the operation of the criminal justice system
- Problem Solving Approach: Students are assisted in understanding reality by having them experience the elements of the system first hand - via observation and critical questioning
- Problem/Issue: Not understanding the link between wanting to be agents of social change and how to start thinking about being agents of social change
- Problem Solving Approach: Students are asked to include solution sections in policy papers to get them to think about realities and feasibility issues surrounding effective social change
- Problem/Issue: Relying on their personal experiences and taking them as representative of reality
- Problem Solving Approach: Students are introduced to empirical social science literature and forced to examine alternatives to their own viewpoints and experiences

Description

Our program and most of my courses are perfectly suited for PPS and whether it was labeled as such, I think I have been teaching around PPS since my arrival here at Guilford. Criminal justice is an ever

changing field. Politics and laws change and it forces us as faculty to be aware of them and constantly change our teaching and teaching strategies. Three specific examples of PPS are as follows:

- In at least three classes, I require my students to observe criminal court or go on police ride-alongs. In FYE, we even travel to Raleigh's Central Prison for a two hour tour. These experiences change the way students look at criminal justice. In essence, it allows them the opportunity to understand what the problem is or how the system works in reality - an essential first step. Once they understand how the system works, then we move ahead to see if there is a problem and of so, how to change it.
- In two of my classes, students write policy analysis papers. The last section always revolves around possible solutions (from their own mind) to the problem. I tell them that they should be as imaginative as feasibility would allow. In this way, they are working toward becoming agents for social change before they even leave here.

Core Value Served: Justice, Integrity

These experiences change the way students look at criminal justice. In essence, it allows them the opportunity to understand what the problem is or how the system works in reality. Once they understand how the system works, the class can have a better understanding of the "real" issues facing the criminal justice system and then problem-solve based on their new knowledge. Self-reflection encourages students to be agents of material social change and encourages leadership with the attributes of mutual respect, honesty, openness, and accountability for high standards.

John K. Motsinger, Sr., Justice and Policy Studies

Course: Diversity at Work

Summary

In JPS 323, Diversity at Work, we look at diversity issues, including race, gender, sexual orientation, ethnicity, and physical/mental abilities. We have full class and small group discussions as well as problem-solving role play scenarios dealing with those issues. These require students to use the knowledge they have gained from the course and from their life and work experience, communications skills we discuss, and their own ingenuity to develop agreed resolutions to the scenarios posed.

Description

In JPS 323, Diversity at Work, we spend a great deal of time looking at diversity issues, including race, gender, sexual orientation, ethnicity, and physical/mental abilities. We do small group discussions and problem-solving role play scenarios dealing with such issues. These require students to use the knowledge they have gained from the course and from their life and work experience, communications skills we discuss and their own ingenuity to develop agreed resolutions to the scenarios posed.

The class is mostly discussion, with a great amount of information and experience exchanged. In addition, I require students to write and present to the class a book report and a paper on related topics of their choices and require two essays as part of each regularly scheduled test. All of this requires a multi-disciplinary approach and application of their own life experience. The content of the course challenges the students and my values and ideologies, without requiring "politically correct" answers.

Core Value Served: Community, Diversity, Justice

This course examines issues of diversity and justice in the workplace. Through discussion and role-playing exercises, students gain the knowledge and skills to address proposed resolutions to issues. Students are able to draw on real world experiences to address classroom scenarios as well as gain applicable skills in addressing workplace issues relating to race, gender, sexual orientation, ethnicity, and physical/mental abilities. Equal employment opportunity concepts impart knowledge of socially-just human resource policies and practices. The proposed mediation course would have a major impact on the Guilford and Greensboro community as students use an interdisciplinary approach to resolving conflicts through mediation.

Charlotte Hamlin, Part-Time Lecturer - Justice and Policy Studies, Psychology

Courses: Interpersonal Communication
 Multicultural Communication

In Interpersonal Communication, a primary course requirement is for students to work on a case study team that focuses on a particular film. They are required to examine how interpersonal communication processes reflect and influence personal and cultural perspectives. As a team, they must collectively complete two papers that analyze character and communication interactions from various perspectives as well as individually completing a paper written entirely from the perspective (film standpoint) of one of the characters in the film. I consider that a rather complex problem-solving task, as well as their assessment in the final of the group process and communication patterns they used in completing the project.

In Multicultural Communication, much of the course includes taking diverse cultural perspectives, understanding what shapes worldview and communication styles of diverse cultures. The final paper is a cultural profile of a non-western/third world country from the perspective of a person not from that culture.

Core Values Served: Diversity, Community

By examining different modes of communication, students learn about the diverse cultures and communication styles of our global community and the importance of respecting their differences.

Bill Stevens, Business Management

Course: Introduction to Business

Most of the courses in Business Management appear to me to fall within the description of PPS entirely. In Introduction to Business, we draw on the life experience of my students and myself as well as occasionally guest speakers to figure out how to more effectively operate a business. Nearly all business only exists to satisfy the needs of the customer. People need inexpensive convenient food so McDonald's invents itself. All sorts of pharmaceutical companies invent drugs to satisfy the need for cures to ailments large and small that plague people around the world. Computer companies continuously invent and reinvent faster and cheaper ways of saving people's time. These businesses are, in fact, successfully addressing real world problems because their customers voluntarily pay for their services.

Core Value Served: Stewardship, Excellence

Business students address issues of stewardship in this Introduction to Business class by examining successful business models.

Deena Burris, Business Management

Course: International Development

I use a PPS approach in the Interdisciplinary Studies course I teach - International Development. Students compare two countries using the question, "Why do some countries develop faster than others given the same resources and historical background?" The class takes an interdisciplinary approach to examine various answers to this question. From here, students do their own project and ask the same question looking at a country of their choosing.

Core Value Served: Diversity, Justice, Equality

In this upper-level course, students examine questions of diversity and equality through their own research into specific countries. By working with "real-world" cases, students tackle challenging questions facing the global community. Students develop an understanding of the current discussion surrounding the fair/reasonable allocation of resources and the consequences of trade decisions in the international political economy.

Lavon Williams, Sport Studies

Principled problem solving in Sport Studies:

- Problem/Issue: Americans can dramatically improve their health and quality of life by including moderate amounts of physical activity in their daily lives, yet more than 60% of American adults are not regularly physical active; in fact, 25% live sedentary lives. Further, American youth between the ages of 12-21 are not vigorously active and activity levels decline during adolescence.
- Problem Solving Approach: Using knowledge of exercise psychology, exercise sociology, behavioral change principles, health promotion, and advocacy, students (a) develop and defend a community-based program designed to promote healthful living through physical activity, (b) develop a method for evaluating the feasibility and effectiveness of their plan, and (c) devise a plan for advocating their program to community leaders.
- Problem/Issue: There are many unanswered questions to problems in the study of human movement and sport studies. For example, rehabilitation and physical activity specialists are interested in adopting best practices and better understanding the motivational process of physical activity behavior. Managers in the sport industry and physical activity are interested in adopting effective leadership strategies.
- Problem Solving Approach: Using knowledge of research methods, students design and implement a research study designed to answer practically-based, and when appropriate, theoretically grounded, research questions.

Core Value Served: Stewardship

These courses address stewardship of the health of Americans. Students are able to form plans and research questions that could provide important foundations as well as future guidance for health-related issues.

Craig Eilbacher, Sport Studies

Problem/Issue: Safety at the workplace should not be taken lightly. Having people who are qualified to deal with medical emergencies may not be the priority of the company of business. Therefore, having an emergency action plan can be advantageous for a company to prevent a minor medical situation from escalating due to a lack of proper safety procedures.

Problem Solving Approach: Using the knowledge of proper emergency procedures, company layout, personnel, and injury prevention, students are to develop an emergency action plan for a facility of their choice. Facilities are recommended, but not limited to, retail stores, athletic complexes, community swimming pools, golf courses, or summer camps. Students are to create the plan as it were to be implemented at their place of employment. The plan should contain the following items: list of emergency phone numbers, directions to the facility, information on how to speak to medical personnel, delineation of responsibility, supervision protocol, emergency care protocol, family notification protocol, record-keeping protocol, individual athletes' emergency information protocol, medical examination and clearance, procedures for proper disposal of items and equipment exposed to biohazard material, visit from emergency personnel to review the plan, and plan practice schedule. Students will be required to show the plan to their place of employment and receive feedback pertaining to the actual use of their plan.

Core Value Served: Community, Stewardship

This course offers students the opportunity to examine health and safety issues in the workplace. By developing emergency plans and safety procedures in service of an organization, students practice addressing very "real-world" situations while they find creative and cross-departmental solutions that foster a safe community.

Bob Malekoff, Sport Studies

Problem/Issue: Crowd control and associated safety concerns at athletic events have become a significant challenge for contemporary sport managers. In order to comprehensively address this challenge, sport managers must focus on a variety of steps that might lead to a safer and more risk free sport venue environment.

Problem Solving Approach: Using the knowledge culled from class discussions and research regarding spectator behavior theory, event management principals and case studies, students are charged with developing a pro-active event management plan for high school, college, and/or professional sports events. The plan should focus on the following areas: specific goals of the event management program; causes of spectator misbehavior and how it might be prevented/addressed; legal ramifications; foreseeable duties of care; pro-active, preventative initiatives; appropriate training, supervision, and management of Event Management staff; comprehensive emergency plan; policies and procedures regarding alcohol-related challenges; and event specific prevention measures to be implemented.

Core Values Served: Community, Stewardship

By examining issues of safety at athletic events, students use stewardship as well as knowledge of their community to address challenges of crowd control and potential emergencies.

HUMANITIES

Maria Bobroff, Assistant Professor of French, Department of Foreign Languages

Activities: Weekly conversation tables

Film series
Guest speakers and performers

The following description illustrates how the Foreign Language department as a whole incorporates Principled Problem Solving through co-curricular activities.

- **Weekly Conversation Tables:** The French, German, and Spanish sections of the department all hold weekly conversation tables to allow students to practice their language skills in a non-classroom setting. Students are required to attend their respective tables a certain number of times per semester. This activity requires students to communicate in a real world setting and to use their language skills in a constructive and creative way.
- **Film Series:** Each section of the department hosts foreign films that complement our courses. In most cases, students are required to attend such films. As these films are scheduled in the evening and are open to the public, they allow our students to interact with non-Guilfordians, and thus learn from perspectives other than those in their immediate academic universe. Films further allow students an alternative perspective on the subjects and themes discussed in our classes. They push students to use their language skills to understand the spoken dialogue in its original language, and they allow students a privileged perspective on non-US cultures. Following such films, our in-class discussions allow students to think critically about the cultural questions raised by the particular filmmaker.
- **Guest Speakers and Performers:** Each section of the department invites speakers or performers to campus throughout the year. Attendance at such events is usually required of students. These events expose students to a microcosm of foreign culture, allowing them the chance to engage with real-life individuals who make use of French/German/Japanese/Spanish language and culture in their daily lives. They are therefore able to learn from—and not just about—people from diverse cultures.

Core Values Served: Community, Diversity

These events encourage students and other community members to examine the importance of diversity through learning another language. The core value of community is also key in these examples—through conversation at a language table as well as bringing Greensboro community members to campus for films and other special events.

Hiroko Hirakawa, Assistant Professor of Japanese, Department of Foreign Languages

Course: Independent Studies in the Foreign Languages Department

Many students who sign up for an independent study with us do so when they have returned from their study abroad semester/year. By the time they begin the independent study, they already have been exposed to PPS, since we practice PPS in our regular classes, co-curricular activities, internships, and study abroad programs. An independent study with us gives our students a further PPS opportunity, in that they are now expected to take a responsibility for designing their own courses of learning. With our guidance, the students develop a plan of study, and they revise it as necessary throughout the semester. I believe that this process of self-designing and -monitoring helps them integrate their knowledge, skills and experiences they gained in their regular Foreign Language courses, co-curricular activities, internships, and study abroad semester/year.

Core Value Served: Diversity, Excellence

Independent studies within the foreign languages departments allow students to bring together co-curricular activities, such as internships and study abroad. This integration of experiential learning with academic study encourages further exploration of diverse cultures and perspectives. It exemplifies Guilford's commitment to academic excellence and personal and intellectual transformation; students develop a life-long learning approach to their education.

Steffany Gamsby, Assistant Professor of Spanish, Department of Foreign Languages

Courses: Introductory, Intermediate, and Advanced Foreign Language courses

The following description focuses on the language, analytical, communication, and rhetorical skills that students develop in our Foreign Language classes and that transcend all areas of the broadly defined realm of Principled Problem Solving.

Beginning in the Introductory levels of Foreign Language instruction, students immediately recognize that with dedication and practice, they will be able to communicate with people from diverse cultures and areas of the world, sometimes with surprisingly early and positive results. Anecdotally, students have often commented to us that within only a few weeks of instruction they were able to order and pay for their meal in an ethnic restaurant in the target language, that they saw a film in the target language and recognized specific words and/or phrases that enabled them to comprehend the gist of the film's plot and even that they were able to facilitate a miscommunication between a customer and a retailer in a local department store.

At the Intermediate and Advanced levels, students extensively practice the formation of a logical essay that follows the guidelines of the suggested topic and that utilizes proper grammar to render the information comprehensible. Anecdotally, upon learning the concept of "Sequence of Tenses" students rapidly improve the quality of their writing both in the target language and in their native language as they are more cognizant of the need to maintain a single verb tense and person in their narrations. It is no surprise that well-trained students of Foreign Languages quite often receive more positive feedback on the technical and thematic aspects of their essays than students with no Foreign Language background. Additionally, it is at this level that students most often study abroad for the first time in the target culture indicating that they have acquired sufficient semantic, morphological, phonetic, phonological, and syntactic instruction to be able to communicate and live in the target culture.

Finally, at the Advanced level of Foreign Language Instruction, students learn that our field dictates that we compose analytical, critical, and academic essays of outstanding quality, unwavering argument, and convincing rhetoric that we must express orally during academic debate. In order to accomplish this, we dedicate a great deal of in-class and out-of-class time to instructing students to refine the writing process. This detailed process inevitably enhances the student's ability to articulate themselves both orally and in their writing, to present sound and convincing arguments, and it instills a greater sense of ethics and pride in their communicative and analytical abilities. Upon graduating from the Guilford College, our Foreign Language majors are prepared to enter fields that depend on their awareness of cultural sensitivity, their ability to communicate complex thoughts, and their capacity to professionally and academically argue rhetorical ideas in both the target language and in their native language.

Core Value Served: Diversity, Community

By focusing on the diversity of world cultures and languages, Foreign Language majors are prepared to enter fields that depend on their awareness of cultural sensitivity, their ability to communicate complex thoughts, and their capacity to professionally and academically argue

rhetoical ideas in both the target language and in their native language. This prepares students to live and work in a global community.

Dave Limburg and Sylvia Trelles, Associate Professors of German, Department of Foreign Languages

Courses: Introductory and Upper-Level Foreign Language courses

Activities: Study Abroad Opportunities
Internships

Summary

- Problem/Issue: How to live, work, and interact in a global community of multiple cultures and languages, with effective communication and understanding skills and with socially appropriate and just actions, respecting all other cultures and reflecting one's own culture in a positive way.
- Problem Solving Approach: We teach our students how to communicate in other languages and how to understand historical and current issues, texts, and works of art from the perspectives of other cultures. We prepare, encourage, and challenge students to apply this knowledge and these skills in our classes, on campus, in our community, and abroad.

Description

Study Abroad Opportunities:

For each of our language programs, French, German, Japanese and Spanish, there are at least two Guilford-affiliated study abroad opportunities available to our students. These semester or year-long programs give our students the chance to experience a foreign culture firsthand, not as a tourist, but as someone who is living and studying or working among the people of a different culture for a significant amount of time. All of our language majors either require or strongly recommend at least one semester abroad as an integral part of the major, and our concentrations promote a semester abroad as well.

The study abroad experience is, in every way, a primary example of a Principled Problem Solving Activity. For an entire semester or year, the student is confronted daily with problem-solving tasks, both large and small. Every personal encounter in the foreign culture is a challenge. Every setback is a learning experience. Every successful interaction brings increased confidence and better preparation to take on the next challenge. Students who study abroad come back better prepared to solve problems because they have a broader perspective. They come back better prepared to work constructively with people from different cultures because they have experience doing so. Students who continue language and culture study after an experience abroad prepare themselves for a lifetime of principled problem solving.

In the culture component of all foreign language classes, students learn the indispensable skill of looking at issues from various perspectives, particularly those of the cultures we study. In the global society in which we live many problem-solving situations in the business, service, and manufacturing areas require an ability to understand the issues from the perspectives of other cultures in order to achieve communication and understanding.

In upper level language courses, students learn to look for patterns or breaks from patterns and to associate those with the historical, political, economic, artistic and scientific issues of a period. An understanding of the interrelatedness of the various aspects of society is essential in the process of principled problem solving. Students might learn, as an example, the need to look for

the subtext in literary work that reflects the troubled political circumstances at a specific time and place. The student must learn the historical and political circumstances that resulted in the need to hide such a subtext and, at the same time, develop the skill of "reading between the lines," a useful tool in any problem-solving situation.

Our students also do internships where they deal first hand with problems that require them to make ethical decisions based on the knowledge they have gained in our classes about the history and societal customs and problems of a group. For example, we have an intern working at Lutheran Family Services with refugee families from various parts of the world. She is working to situate a Cuban family consisting of a blind young woman, her husband and her father. It is a difficult situation made even more so by unusual family circumstances resulting from the political and economic situation in their native country. The student has to solve difficult problems related to this family by learning about those circumstances and their effect on their relationships. This is principled problem solving using knowledge she has gained in language classes, in her experience studying abroad, and in conversations with her instructor.

Core Values Served: Community, Diversity, Equality

Foreign language study offers a way to explore different cultures and to value their diversity. By acquiring another language, students are able to engage in their global communities through study abroad programs in other countries as well as intercultural interactions with members of the Greensboro community. Students have the skills to understand and address socio-economic conditions, both in the United States and around the world, and can work to promote equality with their informed perspective.

Anore Horton, History

Courses: History courses
Independent Study courses
The Vietnam War

In some ways, I consider everything I am doing in my courses to be related to either PPS itself or at least to preparation for PPS.

For example, I teach 2-3 sections of HP each academic year. In emphasizing academic writing (and all of the attendant critical reading, and thinking skills) the challenge I pose to students is how they can retain their own unique voice, style, and ideas while fully responding to the requirements of assignments; learning to operate within a given structure while retaining your full self-expression is a principled problem. HP also challenges students to see situations from multiple perspectives. PPS requires the ability to acknowledge and step outside of your own automatic responses and assumptions, and to be able to see an issue from multiple perspectives. These practices are common to all of my classes.

More specifically, Dottie Borei and I are experimenting very directly with PPS in a new course we are team teaching this semester, The Vietnam Wars. In this class, one day each week is a "Problem Day," in which students use the course materials to tackle problems from the point of view of policymakers and others directly involved in some aspect of the Vietnam War. The course also explicitly considers the different ways that different disciplines approach a similar problem; the course is cross-listed with Political Science, and we are comparing history and political science approaches. Finally, in an effort to break out of traditional ways of learning in history courses, students are involved in a semester-long project to design and create a memorial to some aspect of the war. They must seek to convey a particular political message and emotional

experience with their projects, and we have been exploring the difference between memory and history.

I am also teaching two independent study courses this semester that are PPS-oriented. One I am team-teaching with Julie Burke in Ed Studies. We are working with a student in the elementary teacher accreditation program to design and implement a history unit in the third grade class in which she is student teaching. She is exploring the different ways historians depict the first Thanksgiving, and deciding how she will interpret it for her students. She must then design and teach the unit based on her considered justifications for choosing one interpretation over another.

Core Values Served: Integrity, Justice

The "Problem Day" allows students an opportunity to look at issues from the Vietnam war and apply their knowledge in an interdisciplinary manner, also using core values to guide the process. These values are also applied in a "real-world" setting for the student in the independent study project of the first Thanksgiving. She is examining real issues of equality and justice as she approaches teaching this topic with a balanced perspective. By addressing these issues, her future teaching will be grounded in a sense of integrity surrounding historical depictions.

Nancy Daukas, Philosophy

Courses: Introduction to Philosophy
Science, Sex and Nature

In my sections of Introduction to Philosophy, students read Henry Rosemont's paper "Human Rights: An East Asian Response to Madeline Albright" (which he delivered at Guilford several years ago). Students compare two different perspectives of social justice: on the one hand, there is the dominant conception in the US that social justice consists in political and civil rights, grounded in the value of freedom from coercion; on the other hand, there is the conception expressed in the 1947 United Nations Declaration of Human Rights, according to which social justice requires more than political and civil rights, viz., economic, social, and cultural rights (e.g., the right to education and health care).

In IDS 418, Science, Sex and Nature, students discuss an approach to understanding oppression that brings together history and philosophical analysis to argue that different forms of social oppression stem from attitudes deeply entrenched in our culture, which are also responsible for abuse of the environment. We then see that such deeply entrenched cultural attitudes can influence science (esp. Biology), and therefore that science can perpetuate those social and environmental problems; but we also see how some scientists and philosophers seek to create change within the practice of science, as a means of bringing about positive social and environmental change.

Core Values Served: Diversity, Justice, Integrity

These courses offer students the opportunity to explore different perspectives of social understanding and social justice. They form a foundation for their critical thinking and challenge students to seek ethical solutions to balance competing interests; respecting, understanding, and empathizing with the needs of different individuals and various social groups. In Science, Sex and Nature, students apply this knowledge to better understand the systems and structures through which social attitudes are both reflected and perpetuated.

Lisa J. McLeod, Philosophy
Course: Ethics

The "Biggest Ethical Question" project in the Philosophy 111: Ethics course encourages students to examine a question, dilemma, or plan for which they would like some guidance, or at least would like to think more clearly about. The question involves an ethical dimension, and by making use of ethical analysis, students gain a new perspective on their chosen issues as well as strengthen their sense of the role ethical analysis can play in their lives.

After choosing the question, students articulate the considerations and principles that seem to pertain to the questions. They look at the problem from both (or more) often competing sides. Students are encouraged to articulate the competing sides of the question in terms of "values" and "interests;" that is, *values* that you or other people hold dear, that seem to relate to the question, as well as the different persons (or beings) involved who have some *interest* in how you decide to act, think, live, etc. Students apply perspectives and fundamental theories of ethically thought to the problem. At the end of the project, students must report what they decided to do, or what they determined to be the right action. They must explain the reasoning behind their conclusion.

Core Value Served: Excellence, Integrity

Representative of many courses offered through the Philosophy department, Philosophy 111: Ethics involves intensive work with critical thinking and communication skills necessary for understanding, and devising effective means of responding to, complex problems. Guilford students are encouraged to learn to address problems critically, creatively, constructively, and with courage and conscience. It is up to students to formulate a process that identifies key variables, invents methods of quantifying complex data, and establishes relevant and fair criteria for evaluation – of external issues as well as themselves and their own beliefs.

Vance Ricks, Philosophy
Course: Computer Ethics

Summary

Problem/Issue: What are the best reasons for and against bringing computer technologies to a community – in this case, a fictional college – that lacks them? If such technologies will become part of the community in the first place, which is not a foregone conclusion, then how will they be incorporated and used in ways that either promote, or are at least consistent with, the community's core values and aspirations for itself and for its members?

Problem Solving Approach:

Overview of the development of computer technologies, and the field of computer ethics, in the 20th century; discussion of some current computer technologies, and predictions about likely and/or possible trends; discussion of the concept of "embedded normativity" - that technologies are not morally inert objects or systems; extended discussion of three major moral theories and their attendant frameworks for reaching decisions; assignments and discussions that require students to reflect on themselves as individual consumers and creators of computer technologies; assignments and discussions that require students to reflect on broader social effects and implications of the use of computer technologies.

Core Values Served: Community, Integrity, Stewardship

Moral theories relating to technology and society serve as lenses through which problems are analyzed from the perspectives of community, and equality. The Computer Ethics Group Project exemplifies the three layers of PPS - foundations, practice, and application. Students examine a realistic scenario to determine strategies and guidelines for the adoption of technology and change, which are consistent with the values of an institution or community. This illustrates the values of integrity and stewardship.

Shelini Harris, Religious Studies and Peace & Conflict Studies

Courses: Religious Studies courses
Peace and Conflict Studies courses

Religious Studies: In some of our religious studies courses we identify the role that religious ideas and institutions have contributed to injustice and conflicts, as well as the role they have played in struggling against oppression and injustice, and in creating peace, humility, and compassion (with special attention to the fact that a lot of conflicts and solutions around the world often involve religion). This also includes looking at ways in which religious concepts and interpretations may have to be subject to revisionist and critical appraisal with an eye to how this might contribute to solving social and political problems. Some courses also involve the study of current organizations and movements dedicated to social and environmental justice and alternative sustainable development.

Peace and Conflict Studies: This is a discipline whose *raison d'être* is principled problem solving, namely, studying the causes of conflict (latent and open), analyzing their historical and philosophical roots in order to discover the ways in which structural and attitudinal transformation can be facilitated to create societies that are less violent mentally, intellectually, and structurally; which in turn reduce the causes for the more observable forms of direct violence.

Core Values Served: Justice, Integrity, Community
Through her work with religious studies and peace and conflict studies, students are addressing social issues through a lens of justice and integrity. Courses critically examine social and political organizations and movements. Students also develop mediation techniques such as conflict negotiation and transformation, aimed to promote positive peace (peace with justice) rather than negative peace (lack of overt conflict in the midst of deep injustice).

NATURAL SCIENCE

Marlene McCauley, Geology

Activity/Course: North Carolina's wine industry

North Carolina's fledgling wine industry is currently seeing tremendous growth. These vineyards and wineries have created jobs and attracted tourist dollars to rural communities, and they are an important opportunity for farm diversification and farmland preservation.

GIS (Geographic Information Systems) allow us to model the climate, soils, elevation, slope, and other factors that are critical for grape-growing in NC, and can be used to help identify suitable sites for new or expanding vineyards. Since the industry in NC is quite young, very little work has been done to date. Geology faculty members (McCauley and Moore) and students (Chris Newsom, Abby Blodgett, Trey Hatch) are currently collaborating closely with the NC Grape Council and faculty and students at Surry Community College. We are mapping existing

vineyards in Surry County by grape variety, and studying the relationship between soil properties and varietal performance. Later, we will expand the study to include more counties and more parameters (climate data, for instance) in our database. This information will allow us to develop better GIS tools to help growers decide on suitable vineyard sites for the future, and will be a significant asset to local farm owners seeking alternatives to tobacco crops.

Core Values Served: Community, Stewardship

This offers students opportunities to contribute creative and sustainable solutions to community challenges. Problem solving skills are honed as students gain practical experience with Geographic Information Systems to better understand climate, soils, and other variables critical to responsible investment. Working with the NC Grape Council and students at Surry Community College, students ultimately promote farm diversification, farmland preservation, and economic growth.

Angie Moore, Geology and Environmental Studies

Summary

Current principled problem solving activities that my students and I are participating in center around investigation and solution of environmental problems. These include studies of water quality issues on campus as well as in the regional national park and at local vineyards. On campus, we are in the process of implementing an innovative pilot scale storm water treatment system that has been designed and constructed with great student involvement. Additional projects include campus greening projects that are designed to reduce the ecological footprint of Guilford College in meaningful and long term ways.

Description

I currently work with students on a variety of projects that I feel are directly related to principled problem solving under the working definition. My focus is environmental issues, and the protection of our natural resources and ecosystems is an ethical responsibility. Of course, anything that we can do to reduce the levels of pollution in our environment (air, soil, drinking water) also benefits the humans that live in that environment.

One example includes the construction of a bioretention cell, which is a specialized system to treat storm water runoff from one of the new residence halls. The goal of this project is protect streams from some of the impacts of development. In a bioretention cell, plants, soil, and bacteria are utilized to accelerate natural processes that break down pollutants before they get into the nearby stream. This project has been funded in part by the Guilford facilities department, and an ENVS student has also obtained grant funding for the project from the National Wildlife federation. She is currently working on her thesis research on the system, which is planned to come online in October 2005. This system is a long term study opportunity (5-10 years), and is unique in that it has been designed to study runoff from a building. This system will be studied in my hydrology class, as well as in my environmental planning course to assess if these systems are viable long term alternatives that can work effectively in Greensboro to protect ecosystems and our drinking water supply.

In Introduction to Environmental Studies course, I am presently testing the idea of 'Campus Greening Projects'. These group projects require students to write a detailed proposal, and they can receive funds to complete a specific project designed to enhance the sustainability of the Guilford Campus. It is difficult to conceive of solving larger environmental issues without a thorough examination of our own impacts, particularly in light of the fact that we are not a

particularly 'green' campus now. Students will be graded not only on their ideas and on final paper, but also on the level of the actual results they were able to achieve during the semester. Current projects include a planned campus wide battery recycling event, where the students are coordinating closely with the campus safety manager to organize and fund this project. Aspects of the work include an economic assessment of the project, which they have submitted to the safety officer, research on the regulations surrounding hazardous waste transfers (large amounts of batteries), development of an advertising campaign to educate the campus of the hazards of improper battery disposal, and responsibility for the actual implementation and management of the drive itself. Other projects include the installation of the first waterless urinal on campus in conjunction with the facilities department (a big step in the reduction of our water usage), erosion control measures for the women's softball field, the enhancement of the Fulcher garden to improve butterfly and hummingbird habitat, and the development and implementation of an energy conservation campaign in Bryan Hall. This project is a semester long endeavor that is divided into several discrete steps (proposal, progress report, final report, presentation) and accounts for 30% of the student's overall grade.

Core Values Served: Community, Stewardship, Excellence

Students are guided by the values of excellence, integrity, and stewardship as they protect the environment and work to implement meaningful community solutions to pollution problems. A project with the Guilford Courthouse National Military Park to engage in water quality research on their site focuses on the impacts of stormwater runoff. The data from sampling and monitoring will help guide the parks water quality management plan, which currently includes no stormwater data or standards. These projects encompass multiple disciplines and require creative thinking to arrive at innovative resolution.

Lynn Moseley, Biology

Course: Animal Behavior
Activity: North Carolina Zoo

Principled problem solving in Biology:

- Problem/Issue: To investigate how animals at the North Carolina Zoo use the environments in their natural habitat exhibits. This information can be used to determine whether behavioral enrichment activities would be useful for enhancing normal species-specific behaviors, or whether certain areas in an exhibit are under-utilized and should be redesigned.
- Problem Solving Approach: The first half of the course teaches students types of observational techniques and methods of analyses. In my Animal Behavior class, students spend one afternoon a week during the last half of the semester conducting an independent research project on various species of animals at the North Carolina Zoo in Asheboro.

In the past, some of the research reports that my students have written have been so good that the Zoo staff (the curator of birds, the curator of mammals, the head of Zoo research) have asked for copies to share with keepers, and have invited me to send students who have completed this course to do research internships at the Zoo. Students have investigated such questions as the need for behavioral enrichment activities to improve the quality of life for animals in captivity, and the opportunity for species-typical behaviors to be performed in a given zoo exhibit. They have investigated such questions as dominance relationships in groups, and conducted studies of habitat usage (whether certain areas in an exhibit are under-utilized, for example, and should be redesigned).

Core Values Served: Community, Excellence

Students learn observational techniques, methods of quantitative data collection, and statistical analyses of data during the first half of the semester. They then apply that knowledge to their own research project during the second half of the semester. These projects generate new procedures, raise standards, and provide support for a community organization, the North Carolina Zoo.

Rob Whitnell, Chemistry

Courses: The Chemistry Department's Integrated Laboratory sequence

The Chemistry Department's Integrated Laboratory sequence, originally developed by Dave MacInnes, is an example of PPS that addresses the development of skills necessary to solve problems in the world outside of Guilford. In the spring semester, the faculty group the students from the mid-level and advanced chemistry courses into research teams with a faculty member assigned as the research advisor. We then provide the teams with the broad outline of a current research topic in chemistry and some basic experimental information as a starting point. Each group researches the topic and poses a more specific problem within the topic that they wish to explore over the 7-8 weeks of this project. In doing so, they learn a great deal about problem solving, some of which is specific to the sciences, much of which is valuable in any problem solving situation. These general concepts include:

- The importance of teamwork. That includes both being a strong member of the research team and being able to depend on the knowledge and skills others bring to the team.
- The value of serendipity. Many times the teams make progress on problems that were considerably different from the one they originally intended to solve.
- The significance of what they already know. The research topics build on the knowledge and skills that students have developed in all their chemistry classes up to that point. They quickly learn that there will always be an expectation to apply what they already know. In particular, students from the advanced chemistry courses are expected to take more of a leadership role because they presumably have learned more.
- The significance of what they do not know. We expect the students to develop original research. That requires them to learn what has already been done in the field and to thereby see the body of scientific research that already exists. In particular, they quickly recognize that any interesting problem cannot ever be solved with what they already know.
- The need to communicate clearly and effectively. This becomes most evident at the end of the class when each group is required to present their research and results to the entire class. They learn that solving a problem is just the beginning; convincing others that the solution is reasonable is often the harder task.
- The recognition that, as Cyril Harvey likes to say, "It's not over even when it's over." The process of solving one problem generates many other problems that are worth exploring. The students experience an initial frustration when they experience that, but with that comes the recognition that being a successful problem-solver means being a successful problem-generator as well.

Core Values Served: Community, Integrity

The team-based approach in the Integrated Laboratory sequence serves the values of community and integrity. The process of problem solving is as important as the project itself; it encourages students to treat colleagues with respect as they communicate and build positive relationships, ultimately toward a common goal.

Mathematics Department

All mathematics courses involve explicit problem solving and are designed to aid students in developing two skills that are important to problem solving (whether "principled" or not). At least one course now taught by the Department tackles related problems that might be considered "principled." That course is Math 232/Phil 293 Infinity, Undecidability, Non-Computability, which considers: the limitations of computers, artificial intelligence and algorithmic processes; comparisons and contrasts between computer operations and human cognition; impacts computer use has on human thought and behavior. However, the course is philosophical in nature and not concerned with a specific problem associated with a particular project.

In the past, the Department has organized seminars (under its Math 275 and 475 rubrics), usually initiated by students, in which particular problems are attacked, using mathematical techniques. Many of these seminars could easily become more interdisciplinary and could even be identified as "PPS seminars." Four past examples of this type are consequences of "fair" voting procedures; scheduling processes via operations research; fuzzy logic applied to supply/demand feedback; data analysis of "satisfaction" ratings of curricular requirements by Guilford faculty.

Core Values Served: Justice, Stewardship

Mathematics courses and seminars give students the critical thinking skills of quantitative reasoning and logical deduction. Trained in this methodology, they can analyze data sets and provide statistical diagnosis of particular public policies.

Steven Shapiro, Associate Professor of Physics

Courses: Research Seminar
 Physics Seminar

Two courses, the Research Seminar (PHYS 461) and Physics Seminar (PHYS 480), involve students in principled problem solving. Students in PHYS 461 are all engaged in senior theses which involve doing research/solving problems. For example, this semester, one student is working on problems in medical physics (with a medical physicist in the area) and another student is creating a computer model to produce a risk/benefit analysis to help decide under what conditions it would be better to shoot down a plane piloted by terrorists or let the plane crash where the terrorists had intended (e.g., the White House). In the Physics Dept., we require all students to complete a thesis. In addition, we require that students complete an internship or do independent course work if unable to obtain an internship. Recent internships have been with the American Association for the Advancement of Science (national security issues), Oak Ridge National Laboratory (physics problems), and University of HI (physics problems). In PHYS 480, students present the results of their internships, theses, and other independent work.

Core Value Served: Excellence

Physics seminars exemplify Guilford's high standards of academic rigor and high expectations for achievement. Students participate in senior theses involving in-depth analysis and complex modeling. Internships provide the opportunity to apply their principled problem solving techniques and gain meaningful experience.

SOCIAL SCIENCES

Ken Gilmore, Department of Political Science

Course/Activity: Guilford College Model United Nations

Guilford hosted the First Annual Guilford College Model United Nations for roughly 120 middle school students from Guilford County in May 2006. Middle school students participated in a one day conference/UN simulation based on global issues. The conference was entirely organized, researched, and run by Guilford students.

The course can be taken as a "formal" four-credit course, or as an independent study--depending on the role and level of involvement in the simulation.

Core Values Served: Community, Diversity

The Model United Nations provides Guilford students with an opportunity to serve the Greensboro community and provides a forum and laboratory in which they can gain experience solving problems inherent in organizing such an event. By structuring and participating in discussion and role-playing exercises, they gain and impart the knowledge of leadership dilemmas involved in balancing issues of diversity-of-thought, as well as debate social issues relating to equality and justice.

Kyle Dell, Professor of Political Science and Environmental Studies

Course/Activity: PSCI 101: American Political System
Project Vote Smart internship program

Students in the American Political System learn about the structural limitations and advantages inherent in our system of democratic participation. This course focuses on the idea that students should be engaged citizens in a democracy that is both pluralistic as well as designed to reward those that engage in collective, organized action. Through a variety of research-driven simulations and case studies, students in this course will understand the ways in which they are part of a larger political community as well as how that community requires their participation and effort in identifying and addressing political problems.

Students interested in American politics, and completing the American politics track, are positioned to take advantage of an internship opportunity that affords students a practical, grassroots role in effecting political change in this country: Project Vote Smart. Project Vote Smart is a national, non-profit, non-partisan voter information organization that provides free, unbiased, factual information on over 12,000 political candidates and officials through a 1-800 telephone service and a webpage. Most of the effort to compile this information has been done since 1988 by thousands of student volunteers from around the country and around the world. As a founding board member of Project Vote Smart, I am able to assist students in extracting the most meaning out of their internship experience and seeing the time there as an academic and practical experience in engaged citizenship. Project Vote Smart represents an excellent example of bringing together the principled problem-solving learning outcomes as well as the practical and professional goals of the Guilford Challenge. In fact, several students that have participated in helping Americans practice self-government through the information provided by Project Vote Smart have actually been offered full-time, professional employment based on their internship experience. This sequence truly does exemplify the best of a Guilford education—doing well for one's self, while also doing good for the greater community.

Core Values Served: Community, Justice, Stewardship,

Through a variety of research-driven simulations and case studies, students in the American Political System course will understand the ways in which they are part of a larger political

community as well as how that community requires their participation and leadership in identifying and ethically addressing political problems. Knowledge of fundamental Constitutional values will help students contribute just solutions to public issues. Project Vote Smart represents an example of bringing together the principled problem solving learning outcomes as well as the practical and professional goals of the Guilford Challenge. This links the academic foundation to the practical experience of a responsible and engaged citizenship—doing well for one’s self, while also doing good for the greater community.

Maria Rosales, Political Science

Courses: Classics in Political Thought
Race, Ethnicity, and Politics

Classics in Political Thought: In this course, students gain practice at deeply understanding the perspectives of other people, often people with vastly different perspectives and historical contexts. The students also ask and try to answer questions about the fundamental values of society, and practice answering those questions in various ways. Finally, they regularly make connections between the texts they are reading and modern problems such as poverty, education, criminal justice, and gender inequality, with the goal of seeing familiar problems in new ways.

Race, Ethnicity, and Politics: In Race, Ethnicity, and Politics, students challenge their own assumptions about what race and ethnicity are, while also examining several different theories about race and ethnicity. Among these theories are ideas about how race and ethnicity shape our political identities, including the ways in which images of race and ethnicity are employed in the struggle over issues of equality, freedom, and solidarity. The goal of the course is to use a variety of theories and methodologies in order to develop a critical understanding of the complexities of race and ethnicity, with an emphasis on race and ethnicity in the United States. Projects include a case study, in which students must apply the theories to an actual situation in the U.S.

Core Values Served: Equality, Diversity, Justice
Lessons of leadership and the nature of political and social power are analyzed from historical and theoretical perspectives that provide students with actual, practical case studies of power, justice, and equality. Students examine and practice the ways in which public policy problems and solutions are defined, understood and redefined. With this knowledge, students have the critical thinking analysis, analysis, skills, and values to deeply understand collective and individual political identities and advocate for social change.

Robert Duncan, Political Science

Courses: Politics of State and Local Government
Leadership

Politics of State and Local Government (PSCI 350): This course explores institutional and social issues involved in state and local politics. Integral to this course is having various guest speakers discuss issues and problems from their perspective. Some of the speakers invited for the spring 2006 semester included NC State Representative, Pricey Harrison; Greensboro Mayor, Keith Holliday; Guilford County Sheriff, B. J. Barnes; and Guilford County School Board Member, Dot Kearns.

Leadership (PSCI 450): This is a leadership practicum based on best practices, case studies, and research from a number of different disciplines designed to develop personal, interpersonal, and

group leadership skills in graduating seniors. This course, which is also being considered for IDS 400 approval, examines leadership from an interdisciplinary perspective and incorporates best practices, case studies, and research from a number of different disciplines. The course focuses on the student's development of personal, interpersonal, and group leadership skills and behaviors—a leadership practicum if you will. In addition, I am in contact with adjunct faculty from the Center for Creative Leadership and will be trying to expand this relationship as it relates to my course.

Core Values Served: Community, Stewardship

Studying the politics of state and local governments encourages students to better understand how group and individual interests are balanced in an effort to responsibly achieve community goals. Leaders are essentially principled problem solvers, and an interdisciplinary approach to understanding the best practices will help graduating students manage the organizational culture, institutional policies, and political challenges of this role.

Bob Williams and Robert G. Williams, Economics Department

Courses: Economics courses
 Environment Economics
 Poverty, Power, and Policy

In Economics, students are provided opportunities to develop further their skills in critical thinking and quantitative analysis as we examine a variety of topics and issues. In some classes, we apply these skills to a variety of topics. In other classes, like Environment Economics and Poverty, Power, and Policy we focus on one primary topic. As part of the class, students are required to complete an analytical research paper in which they conduct a public policy analysis of some related topic of their choosing. In this paper, they must examine the specific problem, getting relevant data to support their contention. They are asked to discuss the related political and historical contexts to the issue. After analyzing the underlying causes using economic concepts and theories, they must address some specific public policy remedy in some detail. Further, they are asked to evaluate that remedy in light of their earlier analysis and of relevant economic models and concepts.

Core Values: Community, Equality, Stewardship, Justice, Excellence

All Economics courses rigorously deploy PPS in examinations (current problems that students solve with analytical tools they've been taught), essays (introduction classes) or in-depth research projects (upper level classes) in which students choose a problem of relevance, use evidence and analytical reasoning to solve it, and then write it up, sometimes oral presentations on the problem and its solutions. Students develop their skills in critical thinking and quantitative analysis as they approach specific problems such as poverty, wealth and income disparities, environmental degradation, racism, or unemployment. They explore the historical, cultural, and political contexts that underlie each of these challenges and conduct a public policy analysis to recommend an appropriate remedy.

Claire Morse, Psychology

Course: Elders
Activity: Internship opportunity

In Elders, Psychology 250, one of the paper options is to design a program to address a need in the community identified by the student (either an American Indian tribe or, for the second paper,

the gay and/or lesbian community). The assignment stipulates that the program should address the strengths of the community in designing the program. In their program design and presentation, students should be conscious of the need to work with members of the defined group. They must also be guided by views of both the nature and definition of the problem and aware of the resources, goals and methods of solving it. An excellent paper should make clear how the solution emerges from the history of the group, and how it works within the existing context.

In related internship, students have a particular problem to address/solve. These have been carried out by a student when s/he already knew of the problem the agency wanted to address.

Core Values Served: Community, Diversity

Psychology students who choose to write an Elders paper explore principled problem solving embedded in organizations and social groups, each inhabited by individuals who have needs, feelings, prejudices, and patterns of collective behavior. Program analysis must also focus on facilitation and empowerment in this environment. Research Methods students frequently choose topics which provide additional examples of PPS.

Julie Machlin Burke, Visiting Assistant Professor, Education Studies

Teaching is principled problem solving. I teach our first tutorial and both the internship and student-teaching seminars. Our students are in classrooms using ethnographic strategies as well as their knowledge and pedagogical skills to develop strategies and content to challenge their students. They must continually evaluate each student's strengths and next steps to balance challenge with nurture and make learning relevant to the individuals and the group.

Teaching and learning are not problems to be solved; they are ongoing problems to be dwelled in. Our strategies are constantly evolving and/or changing in ways that are responsive to the context and the learners. This is ongoing principled problem solving. Teachers make over 1000 spontaneous decisions in a day – all in response to the problematics of the classroom.

On another level, we are preparing our students to work with learners in schools to be principled problem solvers; from kindergarten through the secondary grades, we teach our student teachers that teaching is a political act and an endeavor to improve society and the environment.

Core Values Served: Excellence, Stewardship, Diversity

These courses and activities promote high standards in the education of children and adults. At Guilford, in student teaching positions and through internships, students gain practical experience tackling the challenges of classroom dynamics and diverse needs of learners. They promote learning and achievement of high expectations by developing their own teaching and problem-solving abilities.

Kathryn Schmidt, Assistant Professor of Sociology and Director of Women's Studies

Courses: Sociology/Anthropology and Women's Studies courses

Activity: Internship opportunities

Students in Women's Studies and other interdisciplinary programs learn to draw on different models of women's and men's experiences from information gained in classes. Most courses focus on creative solutions to gender injustice that harmonize with feminist or other values.

Through courses that explore people's everyday experiences of gendered lives and involve students in community projects, students gain practical skills. Students completing internships often find them useful both for skills-building and career development. For instance, a recent graduate parlayed her internship at a domestic violence shelter into a post-graduation job. The program sponsors diverse extracurricular programming that highlights women's experiences in culture and everyone's experiences of gender. Students and faculty collaborate in sharing knowledge through these venues. We also work with Campus Life and student groups such as Guilford NOW to provide students involvement options.

The course in Social Problems like many in the Sociology/Anthropology department encourages principled problem-solving. At an introductory level, it introduces students to a wide range of descriptions of social problems and to many individual and institutional responses to these problems. Some students practice their skills at responding to social problems through service learning projects. These projects at the YWCA, prison literacy program, and Pathways homeless shelter encourage students to understand the situations they study. A few students have continued such work into internships or possible jobs.

Core Values Served: Community, Equality, Justice
The Women's Studies and Sociology programs have a long tradition of training and incorporating students in principled problem solving learning opportunities. Students examine women's experiences in culture and everyone's experiences of gender as they focus on creative solutions to gender injustice. Through community service learning projects, internships, and a senior forum, students explicitly tie their coursework to non-academic issues in campus or community service. These practical experiences also serve as career development.

INTERDISCIPLINARY STUDIES

Alvis Dunn, International Studies

Course: International Studies 101: Global Perspectives

This course, required of all International Studies majors, but also attended by students with other academic concentrations, embodies Guilford's traditional Quaker values of tolerance and respect for diversity. This course asks the student to learn how to gather the information necessary to potentially solve problems related to international understanding and "global perspectives." In addition, the students also explore the realm of international employment possibilities. The former challenge is met as the students each choose a specific nation to track about current events as well as historical issues (sociological, anthropological and economic). They use both the internet to read newspapers and other online publications originating in their nation of choice as well as books and magazines from Hege Library. The challenge of becoming informed and focused upon another place, often a faraway one, is met through this exercise and in the process, understanding is hopefully reached. By the end of the semester, they have identified a particular problem peculiar to that nation and have both written a research paper and presented orally to their classmates on that topic. In a more immediately pragmatic vein the students are also required to interview someone with an international career, often a Guilford graduate located through Career Services or the Office of College Relations. This interview consistently proves a very enlightening experience and helps the students to understand their own possibilities for an international or international-related career. These interviews are also shared with the rest of the class. The need for appreciating the "many faces of human culture" and the manner in which humanity organizes itself become, albeit briefly and from a distance, relatively concrete through these exercises.

Core Values Served: Community, Diversity, Equality

International education at Guilford is based upon the traditional Quaker values of tolerance and respect for diversity. Guilford College supports a peaceful world where people who are different learn to work together toward a common human goal of harmonious coexistence. Students learn to appreciate the many faces of human culture, to understand the many ways in which humankind organizes itself, and to speak in more than just their native language. Students learn how to gather the information necessary to potentially solve problems related to international understanding and "global perspectives" as well as explore international employment possibilities.

Jonathan Malino, Guilford Colloquium:

Voices from Palestine and Israel: "Living for Peace" in a Holy Land

Guilford sponsored a two-day, twelve-session Colloquium exploring non-violent approaches to resolving the Israeli/Palestinian conflict. It involved three leading Israelis and three leading Palestinians who have devoted much of their lives to seeking a non-violent resolution to the I/P conflict. The sessions were varied in topic, format and audience in an effort to accentuate multiple aspects of the I/P conflict and the importance of multiple perspectives for any resolution of the conflict.

Microcosm of a Guilford Education

The Guilford Colloquium, *Voices from Palestine and Israel: "Living for Peace" in a Holy Land*, can provide a microcosm of a Guilford curriculum united thematically by PPS. Doing so illustrates how PPS can unify a curriculum committed to practical liberal arts, and how it can do so without restricting traditional forms of a liberal arts education or radically changing what we currently do at Guilford:

- Addressing problems critically, creatively, constructively with courage and conscience: the Colloquium focuses on one problem; different sessions emphasize different modes of addressing the problem to varying degrees.
- Quaker values: core Quaker values of peace, justice, and respect for others are embodied in the theme of the program: "living for peace," and in bringing together members of opposing sides in the conflict.
- Integrating staff, students and faculty in education: Twenty Guilford Housekeeping staff will join students and faculty for the session on Managing Hotel Housekeeping in a Divided City.
- Traditional liberal arts: Five seminars focus on discipline related material covering religious studies, political science, history, philosophy, and science (archaeology). In some cases the topics of the seminar bear directly on the overall Colloquium theme, in other cases they have no direct—or even indirect bearing. They are offered because the participants in the Colloquium are experts in these areas.
- Interdisciplinary studies: Most complex problems require interdisciplinary thinking. Guilford's interdisciplinary programs in Leadership and Social Change, Peace and Conflict Studies, and International Studies are all implicated throughout the Colloquium.
- Outreach to the Greensboro community: The Colloquium is being widely publicized in order to attract the Greensboro community to join the Guilford community in sessions open to the public. One session has been constructed for a specific part of the Greensboro community: religious leaders.

- Extracurricular activities: The Seminar sessions of the colloquium will involve student-led extra-Colloquium sessions to prepare the assigned reading for the seminars. The Colloquium will also directly connect to specific student organizations including Hillel, GCRO, and the Guilfordian.
- Education for life: The opening session of the Colloquium will focus on the relationship between the Israel/Palestine conflict and the participants' personal, vocational and family lives. The evening event in Dana Auditorium will focus on the challenges participants have faced in "living for peace."

Core Values Served: Community, Justice, Diversity

As described, the Guilford Colloquium, Voices from Palestine and Israel: "Living for Peace" in a Holy Land, is in many ways a microcosm of a Guilford curriculum united thematically by PPS. Through the organizational process of the event and its themes, core values of community, justice, and diversity are demonstrated. The outreach and unification efforts encourage students to exhibit leadership with conscience.

Clay Harshaw, Interim Director, First Year Program

Course: FYE 101

Students in my FYE 101 course are preparing proposals to reform intercollegiate athletics. Specifically, they are proposing scheduling changes for six sports (women's soccer, women's basketball, women's softball, men's soccer, men's basketball, and men's baseball) in the Old Dominion Athletic Conference (ODAC). The sports are selected because they have events during the week and often require extensive travel during the week. These events produce conflicts for athletes with courses and labs in the afternoons. The reform proposal is to bring athletic participation closer to the educational missions of the institutions within the ODAC, including Guilford College.

Core Values Served: Community, Stewardship, Excellence

Students are able to draw on a real world issue to strengthen the intercollegiate athletics and Guilford community while working with the core value of stewardship, as they try to maximize the value of human, financial, and programmatic resources in ways consistent with the educational values of institutions such as Guilford. The First Year Program prepares Guilford students for personal and intellectual transformation through the liberal arts and to achieve high standards of academic rigor during their tenure.

Judie Bucholz, Interdisciplinary Studies

Course: Business Ethics

In the Business Ethics course students look at a variety of ethical issues including gender discrimination, environmental issues, CEO pay, Affirmative Action, outsourcing, First Amendment, diversity in the workplace, Sarbanes Oxley Act, and drug testing. Students read perspectives on both sides of the issues and write a reaction paper about them. They also choose one ethical issue of interest, research it, present it, and write a 15-page paper. They might write about issues such as sexual harassment in the workplace, employee privacy, three-strike rules, right-to-die-with-dignity, racial discrimination, the teaching of intelligent design vs. evolution in the schools, racial profiling, or implications of using pharmaceutical study aids.

The course gives students an opportunity to explore subjects and issues that they did not previously study, look at both sides of the issue, and make an intelligent decision for themselves.

Core Values Served: Integrity, Justice

Students address various ethical issues in today's global society. They use a multidisciplinary approach to address these issues by looking at world views and developing personal views surrounding a variety of ethic issues in their everyday lives. In this course, these views are shared in papers and presentations, individually and collectively.

Judy Harvey, Interdisciplinary Leadership for Social Change

ILSC is still an evolving program. We are awaiting approval from the Curriculum Committee of 3 one-credit seminars that help students interested in working for change to strategically plan for the skills and experiences they desire as well as to develop a reflective practice that will serve them as life long learners working for change. Anyone engaged in problem solving needs self-awareness and an ongoing reflective practice.

One aspect of our program focuses on directly involving students in principled problem solving. We describe this category of programs as "Change Projects." A Change Project is work that needs to be done on campus that will help Guilford realize its vision for itself. We want to give students the chance to think through complex institutional change issues and give them practice solving problems using strategies that are not limited to protest.

We envision several areas in the future, but only one is up and running so far. The Change Project we are currently working on (in collaboration with Campus Life and Peace and Conflict Studies) is the Community Agreements Initiative. Students living in residence halls work with trained student facilitators to negotiate agreements about how they want to live together. Blaine Lukkar, ILSC Coordinator, takes the lead in this project. We are looking for other such change projects to develop. Our ideas have been projects related to environmental sustainability, ethical procurement, living wage issues, etc.

Student Community Agreement Initiative facilitators receive credit for their training. A permanent training and credit system is still being designed. We have proposed that students also be able to receive a grade, in the interest of their training counting toward the Peace and Conflict Studies Interdisciplinary Studies major.

Core Values Served: Community, Justice, Stewardship

By engaging in Change Projects, students work directly to improve the Guilford community, while learning leadership techniques and examining the many facets of organizational administration. Students learn to maximize the value of Guilford's resources and weigh decisions to ensure long-term survival of the institution. The Community Agreements Initiative cultivates the fair resolution of conflict, positive relationships, and peaceful coexistence.

EDUCATIONAL SUPPORT

Mary Ellen Chijioke, Hege Library
Resource: Hege Library

As it relates to the Principled Problem Solving initiative, Hege Library's role is two-fold: a supportive resource for all projects as well as a source for "problems" that we would like to work on in conjunction with others.

A faculty-library group is currently developing a proposal for more effectively integrating information literacy into the overall curriculum. As defined by the Association of College and Research Libraries, information literacy "is a set of abilities requiring individuals to 'recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.'" These competencies and skills are essential not only to academic work but also for problem solving, in both its practical and its principled components. The library can therefore be a valuable partner in virtually all programs developed until the rubric of PPS.

Core Values Served: Community, Excellence

Hege Library and the information literacy committee serve to improve the Guilford community through integrating information literacy into the curriculum. Resolutions of the economic, legal, and social issues surrounding the use of information are guided by the core values. Resources support the culture of academic excellence and demanding intellectual achievement.

Vernie Davis, Peace & Conflict Studies and The Conflict Resolution Resource Center

Courses: Social Change: Promoting Peace
Culture, Conflict, Negotiation
Mediation and facilitation courses
Resource: The Conflict Resolution Resource Center

Social Change: Promoting Peace:

One of the assignments in SOAN 345 (Social Change: Promoting Peace) involves students developing solutions for a specific challenge or problem encountered in social change work that they identify. I have renamed this assignment "Principled Problem Solving Project" the last two years to help students recognize the link with this part of the strategic plan. This course aims to contribute to the mission of the college to develop leaders, critical thinkers, and social change agents based on the five Quaker testimonies of community, equality, integrity, peace, and simplicity.

Culture, Conflict, Negotiation:

One of the specific assignments in IDS 445/SOAN 445 (Culture, Conflict, Negotiation) includes a Principled Problem Solving Project related to conflict in a multicultural setting. The purpose of the assignment is to encourage the integration of class concepts with problem solving to address real problems of intercultural conflict. The assignment is to write a 12-15 page policy recommendation or a proposal for a project to apply in an intercultural conflict.

Mediation and Facilitation Courses:

I teach several courses that prepare students to be mediators, facilitators, and mediation trainers that contribute to principled problem solving skills by preparing students with the skills, frameworks, and processes used in conflict intervention to assist others to collaboratively solve problems.

The Conflict Resolution Resource Center:

Students working with the Conflict Resolution Resource Center (CRRC) in the role of mediator, facilitator, or consultant assist individual students, informal groups of students, and student groups improve their communication and ability to find solutions to their problems and conflicts.

Last year the CRRC added preparation of students as facilitators and the Community Agreements Initiative to help students in Binford learn how to address the problems with living together through the use of consensus to develop community agreements. Several of the trained facilitators used these skills to facilitate additional campus meetings to help other groups deal with group problems.

Core Values: Community, Integrity, Justice

These experiences draw on the social constructionist perspective to explore the extent to which we, as humans, participate in creating the world in which we live, explore the dynamics of socio-cultural systems and ways different parts of culture are inter-related, examine symbolic interactions to explore the role of individuals in social change, draw on the contributions of anthropologists and peace researchers to deepen our understandings of both peace and violence by exploring the experiences of other cultures and by examining multiple dimensions of these terms, explore the values and ethical assumptions implicit in different models for social change, and engage in projects to apply these perspectives to real world approaches to reduce violence and promote peace.

Irene Harrington, The Bonner Center for Community Learning

Resource: The Bonner Center for Community Learning

The Bonner Center for Community Learning has been dedicated to the concept of "Principled Problem" solving for many years. The Center's approach to community service includes creating partnerships with our community to solve problems. This approach is best described as "community problem solving." Our students collaborate with those who live in the communities we serve. We seek to gather and share knowledge about existing problems, useful strategies and available resources. We prefer the term "community learning" over "community service" because we serve *with*, not to the community. We also recognize our community partners as our teachers and co-learners working with our students to respond to and solve community problems.

Bonner Program components and projects are pertinent to Principled Problem Solving. The student developmental goal of the Bonner Program for students is: "To develop the skills, knowledge, experience, and commitments of students engaged in community service over the four years of their Bonner Program experience." The program combines skills and knowledge definitions through outlining specific competencies:

Personal Skills

- Active Listening
- Balance/Boundaries
- Communication
- Decision Making
- Organization/Planning
- Reflection
- Time Management

Leadership Skills

- Conflict Resolution
- Delegation
- Planning
- Public Speaking
- Running a Meeting
- Teamwork
- Working with Diverse Groups

Professional Skills

- Budgeting

- Evaluation / Research
- Event Planning
- Fundraising
- Grant Writing
- Marketing/Public Relations
- Mediation
- Networking
- Public Education/Advocacy
- Volunteer Management

The community partnerships and collaborative problem-solving model approach complements the experiential and service-learning models described above, bringing to the forefront consideration of the community's stated needs, while placing greater emphasis on the skills and knowledge acquired while engaged in this collaborative process of project and program work.

Project Coordinator Program

- Problem/Issue: A major complaint from agencies is that college volunteers are not properly trained, know little about the community and its people and they have little supervision from the college they attend.
- Problem Solving Approach: Our Project Coordinator program addresses this problem by developing student coordinators for established sites. These coordinators are trained in various areas including: anti racism, conflict resolution, meeting facilitation, tutor training, etc. they are trained before the academic year begins and take part in on going training and constant consultation with Community Learning and agency staff.
- Result: Because of the training, Guilford College students have earned a reputation as competent, caring and effective volunteers.

Pathways

- Problem/Issue: Pathways is a family homeless shelter. Many of the youth struggled with the stigma of being homeless and attending public school. Their grades suffered as a result. Pathway youth and their parents just need people to act as mentors.
- Problem Solving Approach: Guilford students developed a tutoring program that is in its 13th year. They were educated to approach this problem through tutor training, anti racism training, discussion of pertinent issues with various faculty, staff and community partners.
- Result: Pathway students have benefited by performing better in school and having the opportunity to take part in events sponsored by Guilford. (Kid's fest, sports events, field trips)

Project Community

- Problem/Issue: Many of the people we serve lack the resources to provide for the holiday season. Children go without basic needs, not to mention toys and clothes that many kids receive.
- Problem Solving Approach: The Giving Tree was created to give the Guilford Community the opportunity to help those we serve in Greensboro. Students, faculty and staff chose an ornament from the tree, purchase the item and Project Community delivers it to the appropriate person.
- Result: Community members who otherwise would have a miserable holiday season are treated to gifts and much-needed items such as clothes, shoes and toys for the kids.
- Problem/Issue: Many youth lack the resources to take part in events such as Halloween and fairs. Some are ashamed because of their housing or financial situation.
- Solution: Project Community created the Halloween fest and Kid's fest to provide these youth with a meaningful and fun experience.

Core Values Served: Community, Equality, Excellence, Integrity, Justice
Guilford students are educated to approach problems through a series of programs, training, academic tie-in and reflection exercises that seek to develop the skills, knowledge, experience and commitments of students involved in community service. The various programs and experiences exemplify the three tiers of PPS (foundations, practice, and applications) and all are guided by the core values of Guilford and with an appreciation for high-performing

leadership with integrity. Project Community serves the Greensboro residents. Work at the Pathways family homeless shelter contributes to equality and social justice. The training program in the Project Coordinator Program imparts personal, leadership, and professional skills necessary for occupational and life excellence.