



**THE UNIVERSITY OF MICHIGAN  
College of Engineering/College of LSA  
Joint Curriculum Committee Meeting Agenda**

**TUESDAY, FEBRUARY 15, 2005**

**\*\*\* 3:10-5:00 PM \*\*\***

**KUENZEL ROOM, MICHIGAN UNION**

- I. Minutes of February 8, 2005
- II. Introductory Biology Courses for Engineering Students:  
Bob Denver, Associate Chair MCDB  
Diarmaid O'Foighil, Associate Chair EEB
- III. Grading Changes in LSA Faculty Code
- IV. Emerging Scholars Programs
- V. Matters Arising

**ENCLOSED FOR YOUR INFORMATION**

1. Draft Minutes of February 8, 2005 *p. 1-3*
2. Grade Reporting in LSA *p. 4-5*
3. "W" Proposal Recommendations *p. 6*
4. Median Grade Proposal Recommendations *p. 7-8*
5. Treisman Program *p. 9-16*

# DRAFT

## LSA CURRICULUM COMMITTEE

Minutes of February 8, 2005

**PRESENT:** Bob Megginson (chair), Joel Bregman, Jayne Brownell, Paige Butler, Timothy Chupp, Alina Clej, Ryan Ford, Jan Gerson, Brenda Gunderson, Katherine Musbach, Jennifer Myers, Esrold Nurse, Elisha Renne, Pam Rinker, Ben Sunday, Liina Wallin, Robert Wallin, Evans Young

**VISITOR:** Susan Douglas, Chair of Communication Studies

The meeting came to order at 3:10 pm.

### MINUTES

Minutes of January 25, 2005 were approved.

### R&E SUBCOMMITTEE REPORT

Assistant Dean Evans Young presented the attached Race & Ethnicity Subcommittee Report. Their recommendations were *approved* as follows:

#### APPROVE (5)

##### *New Proposals, Instructor-Specific*

1. **AmCult 204.** Themes in American Culture with the topic *Re-making Race: Role of Race and Racism in American Literature and Culture*. Deidre Wheaton (SU 2005)
2. **RCLang 324.** Readings in Spanish with the topic *Diasporas and Displacements in Spain*. Olga Lopez-Cotin (Fall 2004)
3. **WomenStd 436/AnthCul 436.** Human Rights, Gender and Culture. Miriam Ticktin (Fall 2005)

##### *Recertification, All Instructors*

4. **Ling 370/Anthcul 370.** Language & Discrimination: Language as Social Statement. All instructors ( Fall 2005)

##### *Recertification, Previously Deferred, Instructor-Specific*

5. **RC SSci 374.** Race, Gender, and Empire in the Nuclear Age, and when it meets with **History 396**, History Colloquium with the topic: *Race, Gender, and Empire in the Nuclear Age*. Gabrielle Hecht (Fall 2005)

#### INACTIVATE (6)

The following courses are being inactivated at the request of the department:

1. **AmCult 210.** Introduction to Ethnic Studies with the topic *Rethinking Resistance in 20th Century U.S. Film and Literature*. Nicole Stanton
2. **English 270.** Introduction to American Literature with the topic *Race and Ethnicity in Literature of the U.S.* Rosemary Kowalski
3. **Judaic 296/HJCS 296/Religion 296.** Perspectives on the Holocaust. Elliot Ginsburg
4. **Psych 120.** First Year Seminar in Psychology as a Social Science with the topic *Diversity, Identity, Development, and Change on American Campuses*, and when it meets with **Honors 250**, Honors Sophomore Seminar with the topic *Diversity, Identity, Development, and Change on American Campuses*. Shari Saunders
5. **RCHums 305.** Cultural Confrontation in the Arts. Eliana Moya-Raggio
6. **REES 396/Slavic 396/History 333/Polsci 396/Soc 393.** Survey of East Central Europe. Herbert Eagle

## APPROVING AND EVALUATING R&E COURSES

Dean Young presented two separate reports submitted by the R&E Subcommittee as summarized below (see attachments for details). Both were *approved* by the Curriculum Committee for immediate implementation.

First, the R&E Subcommittee recommended replacing *instructor-specific* R&E approval with one that is *topic-specific*. This designation would be more consistent with blanket approvals in that the departments would be indicating in each case that a class being offered under a course title and/or subtitle/topic would be taught as an R&E course regardless of the instructor. When an R&E course is offered under a “topics” course number, departments would attach a topic ID to the approved subtitle. As a result, the course would automatically be listed and counted as an R&E course regardless of the instructor for the term.

Second, the subcommittee recommended that faculty teaching R&E courses be strongly encouraged (but not required) to include two specific IDQ items in their end-of-term teaching evaluations:

132. I learned to think critically about difficult issues of diversity.

186. The instructor was effective in handling multicultural issues and content.

The intended purpose of this change would be two-fold: 1) to provide instructors with helpful feedback related to the R&E content of their courses; 2) to assist the Curriculum Committee in reviewing proposals for renewal of an R&E course designation. When requesting recertification of the R&E designation, instructors would be asked to submit the teaching evaluation responses to these questions in addition to currently-requested materials.

## ROTC SUBCOMMITTEE REPORT

A decision with regard to crosslisting **NAVSCI 402** with the UC Division had been *deferred* on January 18 based on the recommendation of ROTC Subcommittee. In response to concerns that the last part of the course appeared to be more pre-professional than academic in content, the instructor provided a revised syllabus and additional detail as to how the manual is used, the last month’s academic content, and course requirements. The clarifications and changes in the syllabus removed most of what appeared to be non-academic content, for example US Navy Family Care Policy. As recommended on the attached ROTC Subcommittee Report, **NAVSCI 402/UC 403, Leadership and Ethics**, was *approved* effective **Fall 2005** as counting for credit toward an LSA degree.

## COURSE APPROVAL REQUESTS (SEE APPENDIX I FOR A COMPLETE LISTING)

1. The request to **remove enforced prerequisites** from several **Chinese** language courses as listed on the attached memo was *approved*. The department will submit course approval forms to implement this change.
2. **Consent Items 1-80** on the attached list of Course Approval Requests were *approved*.
3. **Discussion Items 81-84** and **86-90** were *approved*.
4. **Discussion Item 85**: A decision regarding **Environ 345, Environmental Public Opinion Analysis**, was *deferred* pending clarification of the Statistics content.
5. The following **new courses** were *approved* to fulfill one of the college requirements:

### Humanities Distribution

- a. **AmCult 381/FilmVid 381**. Latinas/Latinos and the Media. Catherine Benamou.
- b. **Asian 235**. Introduction to the Study of Asian Cultures.
- c. **Asian 330**. South Asian Literary Humor. Christi Merrill.
- d. **HJCS 281/Judaic 281/Slavic 281**. Jews in the Modern World: Texts, Images, Ideas. Shachar Pinsker, Julian Levinson, Mikhail Krutikov.

### Social Science Distribution

- e. **Ling 115.** Language in a Multicultural World. Sarah Thomason.
- f. **WomenStd 331.** Introduction to Feminist Legal Theory. Anna Kirkland.

### BS eligibility

- g. **Psych 326.** Faculty Directed Early Research for Psychology as a Natural Science.
6. The request to **remove distribution** from **History 396 (SS)** and **History 397 (HU)** was *approved* effective **Spring 05**.

### CONCENTRATION MODIFICATIONS

1. The request to increase the number of credits required to complete a concentration in **Anthropology** from 27 to 30 was *approved* effective **Fall 2005** (see attached memo).
2. On March 1, 2004, the Curriculum Committee approved the Department of Communication Studies' request to implement an application process for admission into the concentration with a minimum 3.0 GPA for the prerequisites. Upon further review and discussion within the department, they are requesting revisions to two areas of the concentration requirements: dropping the required minimum GPA for the prerequisites; and reducing the total number of required credits from 30 to 29 (see attached proposal for details). Associate Dean Bob Megginson invited departmental chair Susan Douglas to explain the rationale behind these changes. Prof. Douglas explained their primary reasons as allowing more flexibility when reviewing applications as a whole and maintaining the level of diversity among their concentrators. She expects the personal statement on the application form will be crucial for sorting mid-level students. Their student services representative is investing a lot of time and effort into communicating with students about the admissions process.

The committee in particular questioned the ramifications of dropping the minimum GPA, such as leaving students without a clear benchmark. Since the enormous enrollment pressure keeps many students from completing the prerequisites by their sophomore year, Academic Advising has serious concerns about the students who are unable to declare a concentration until their junior year. As to whether or not the department will have the resources to review applications twice a year, Prof. Douglas could only say they will do their best. After a lengthy discussion of the issues, the changes to the entrance process and required number of credits for a concentration in **Communication Studies** were *approved* effective **Fall 2005**

3. As detailed in the attached proposal, changes in the requirements for an LSA concentration in **Music** were *approved* effective **Fall 2005**.

### ACADEMIC MINORS

Five **new academic minors** were *approved* effective **Fall 2005** (see attached proposals for details):

1. **EARLY CHRISTIAN STUDIES** (NEAR EASTERN STUDIES & CLASSICS)
2. **MEDICAL ANTHROPOLOGY** (ANTHROPOLOGY)
3. **Medieval & Early Modern Studies** (MEMS)
4. **Music** (School of Music)
5. **Urban and Community Studies** (Residential College)

The meeting was adjourned at 4:45 pm.

### NEXT MEETING:

Joint Discussion with the College of Engineering Curriculum Committee  
Tuesday, February 15, 3-5 pm  
KUENZEL ROOM, MICHIGAN UNION

## GRADE REPORTING IN LSA (excerpted from CC minutes of 3/30/04)

The LSA Curriculum Committee *approved* the two new grade-reporting proposals (attached). If accepted by the Executive Committee, the proposed changes to the faculty code would be presented at an LSA Faculty meeting in the Fall, followed by a discussion and vote in Winter term, with implementation targeted for **Fall 2005**.

1. **The first grade-reporting proposal recommends expunging a “W” on official transcripts for *first-semester* students who drop a class past the 9-week deadline.** This change in policy would *include* transfers from other schools but *exclude* cross-campus transfers. (*The latter point needs to be added to the proposed changes to the faculty code.*) This proposal was *approved* by a vote of 6 in favor, 1 opposed, and no abstentions. Two faculty and two student members of the committee were absent.

Rationale and Discussion: The primary intent of this proposal is to help new students who “get in over their heads” before realizing that most UM classes require more time and effort. Despite repeated reassurance from faculty and academic advisors, students typically have a lot of anxiety about the W as punitive and damaging. The college’s position is that the W is intended to reflect the *record of academic activity* rather than *performance*, and that a few W’s don’t carry much weight on a transcript, especially in the first year. Some fear that students might respond by enrolling in more classes than they would otherwise, with the intent of dropping the ones with the lowest grade. This was considered unlikely since academic advisors work so closely with first-term students during the registration process. First-term students who want to drop classes will need to consider possible implications regarding financial aid. Phil Gorman, Associate Director of Academic Advising, objected to expunging data from a student transcript on the grounds that it represents a “first bite” out of the college's high standards regarding the integrity of the transcript. Associate Dean Owen pointed out that the experience of other Big Ten schools implementing such a policy has been positive, with the overall net effect being a better transition from high school to college. LSA Student Government also backs this proposal.

2. **The second proposal is to include on all student transcripts the median grade and class size in addition to the individual grades.** After extensive discussion as summarized below, this proposal was *approved* by a vote of 6 in favor, 2 opposed, and no abstentions. Two faculty and two student members of the committee were absent.

Rationale and Discussion: A primary goal behind the inclusion of median grades and class size on the transcript is to offset disparities in grades across different academic disciplines. Generally speaking, national data indicates that student GPAs in the Sciences and Economics are lowest, Social Sciences in the middle, and Humanities the highest. Proponents of the proposal argued that the inclusion of median grades would provide contextual information, thus giving a more level playing field for students whose transcripts are reviewed for various honors, awards, employment opportunities, and professional schools admissions. Due to grade inflation in general and “plain-vanilla” letters of recommendation, some graduate admissions committees have had to place more weight on GRE scores. On the other hand, some faculty members of the committee reported having no difficulty evaluating grades submitted by applicants to their graduate programs.

Some members of the committee strongly objected to what they viewed as an unfair devaluation of the academic integrity of courses in the Humanities and Social Sciences, as well as the underlying assumption that high median grades equate with less rigor and/or lower standards. They pointed out that grading disparities between disciplines reflect real differences in pedagogical style, such as the types of assignments used and the reiterative process of producing a final paper or research project. Others on the committee did not think such negative connotations were intended by this proposal. Rather, it would recognize and allow for the normal disparities in grading style between various faculty and schools. Importantly, it would preserve the freedom of each faculty to grade in the way they deemed appropriate. The committee agreed that **deleting point 7 from the rationale** would be helpful.

Assistant Dean Evans Young raised a question about the possible correlation between grading disparities across the disciplines and class levels. Recent LSA data from four terms at UM (Winter 02, Fall 02, Winter 03, and Fall 03) indicate a gradual progression of median grades across the disciplines: a median grade of 3.0 or 3.3 for classes at the 100-level up to 3.7 at the 400 level. The exceptions to this pattern—Mathematics, English, and Psychology—dominate the divisional data and shape the impression of distinct grading behavior by the different divisions.

In view of literature indicating a correlation between teaching evaluations and student grades, another goal of this proposal is to provide some scale of comparison in awarding faculty/merit awards. It also is meant to address the tendency of students in general and women in particular to be discouraged by “low grades” in science classes and thus change fields, when in fact these students may be doing better than their peers. A positive impact also is anticipated in other issues as well, for example the imbalance between honors students in the sciences as compared with other fields and the retention of concentrators in the sciences.

## “W” Proposal Recommendations

Recommendations of the LSA Curriculum Committee for implementing the following amendment to the faculty code approved on December 8, 2004:

Addition to **B 3.02 Sec. 2 Changes in Elections:** For all courses taken during the student’s first term in the College, all “Ws” for approved drops will be expunged from the official transcript.

1. The policy would apply only to *first-term* LSA students in all courses in which they are enrolled, both LSA and non-LSA courses.
2. We recommend that the policy *not apply* to students who transfer into LSA from another College within UM, i.e. these students would *not* have the “W” expunged from their transcripts during their first semester within LSA.
3. Since the “W” proposal is intended to ease the student’s transition into his/her first full term, we recommend that *spring/summer* not be counted as a first term. We think they do not give students a true college experience in the way that fall and winter terms do. Therefore, we recommend that the language in the proposal read: *For all courses taken during the student’s first term in the College (excluding spring/summer term), all “Ws” for approved drops will be expunged from the official transcript.*
4. We recommend that if a student completely withdraws from his/her first term, the “W” policy will apply during the first term in which the student returns. We also recommend that students have only one opportunity to start over in this way.
5. The Registrar suggested that the change in the “W” policy should be noted on the transcript key for the official transcript for the purposes of accurate record keeping. Our recommendation is that a note be placed on the back of each student’s transcript to indicate what a “W” means and to indicate that they are not recorded on a student’s transcript for the first term. We would again need to state that for all courses taken during the student’s first term in the College (excluding spring/summer term), all “Ws” for approved drops are expunged from the official transcript.
6. We recommend that although “Ws” will be expunged only for first-term LSA undergraduates, the College of LSA should notify other colleges within the University that for first-term LSA students, the W from any non-LSA course also will be expunged.
7. We think it is important to emphasize (especially to orientation advisors and orientation students) that the change in the “W” policy does not change the drop/add deadline nor does it change the procedure for dropping a course. Only the way a “W” is recorded is being changed.
8. While we recognize that the Registrar needs time to implement this change, the College aims to have this change implemented by Fall 2005.

## Median Grade Proposal Recommendations

Recommendations of the LSA Curriculum Committee for implementing the following amendment to the faculty code approved on December 8, 2004:

**Addition to B 5.13 Sec. 13 Reporting Grades:** For all undergraduate classes with enrollments of ten or more students, the Registrar shall record the class size and median class grade. For classes enrolling both undergraduate and graduate students, the Registrar shall record the class size and median class grade for the undergraduate students in the class.

1. For all LSA undergraduate students in LSA or non-LSA classes with enrollments of ten or more undergraduates, the **median class grade** and **class size** will be based on the total number of all undergraduate grades reported (regardless of home academic unit).
2. **Pass/Fail grades**, which are reported as a letter grade, should be included in the calculation of the **median class grade**. Since “P” or “F” appears on the transcript, however, the **median class grade** should not be recorded for such students.
3. The **median class grade** will be calculated twice: the first calculation will be at the end of each term for classes with enrollments of ten or more undergraduates; the second and final calculation (which will replace the first) will be at the end of the subsequent Fall or Winter (Operationally, that means that the second computation for Fall term would be at the end of the subsequent Winter term; the second computation for Winter, Spring, and Summer terms will be at the end of the subsequent Fall term.)
4. The calculation of the **median class grade** will use the standard simplified definition of the median. [Example: in the following ordered array of nineteen scores: 2, 3, 3, 4, 5, 7, 7, 8, 8, 8, 8, 9, 10, 12, 14, 15, 17, 19, 19, the median is the tenth score in the array. Counting over from left to right, we find the tenth score to be 8.]
5. The **median class grade** should be recorded in *letter* format rather than numeric, either within parentheses or in a different font to distinguish it from the student’s earned grade. [Example: Using the calculation method above, if grades given in a course class were C, C, C, C, B, B, B, A-, A, we would consider the median to be the middle grade among the nine, namely, B. If the median fell halfway between two grades, say a B+ and A-, then the median class grade in such a case would be reported in the form B+/A-.]
6. The **median class grade** and **class size** should be recorded only on the transcripts of LSA undergraduates; this amendment does not apply to undergraduates from other academic units. For any LSA student in a dual degree program, the **median class grade** and **class size** will be recorded only for the terms in which LSA is the student’s primary college.
7. While the **median class grade** and **class size** should appear on both the *official* and *unofficial transcript*, it should not appear on the “View Grades” report that students can access online.
8. As the default for courses with *multiple graded sections*, the **median class grade** should be computed based on each student’s specific section. Alternatively, we recommend that departments be able to request that the computation be based on *all sections* of the course.\*

\*These two options accommodate different types of courses with multiple graded sections: 1) a course in which instructors of each section cover substantially different topics with different types of students; 2) a course that covers the same content across all sections, in which all instructors try to apply uniform grading across all sections. It would be helpful if departments could request *finer* groupings; e.g., grouping particular sections of a course that use common grading practices separately from other sections in the same course. We recognize that incorporating this extra flexibility depends on whether it is technically feasible.



# GATEWAY SCIENCE WORKSHOP PROGRAM

Searle Center For Teaching Excellence - Northwestern University



## Program Overview

GSW PROGRAM

- Introduction
- Program Goals
- Collaborations

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### Introduction

It is a common belief at colleges and universities across the United States that introductory science and engineering courses are very challenging both for students to study and for faculty to teach. Many students make significantly lower grades in these courses than their previous academic records predicted. These courses are often prerequisites for science majors and required of students planning to pursue careers in medicine and science. Poor performance has prevented many students from entering careers in science, engineering and medicine. Students at Northwestern University have been no exception to this pattern.

The Gateway Science Workshop (GSW) program was developed as a key part of Northwestern's strategy to address this issue. GSW is based largely on the successful interventions initiated by Uri Treisman at University of California, Berkeley. Inaugurated in Biology in 1997, the program has expanded to chemistry, physics and engineering. Students who participate in the GSW program meet weekly in small, diverse groups with a trained peer facilitator to tackle challenging and conceptually-based problems related to their course material.

The GSW program at Northwestern is generously funded by the Andrew Mellon Foundation and managed by the Searle Center for Teaching Excellence at Northwestern. In addition to the role of program organization, development and expansion, the Searle Center serves as evaluator for the program to assess its impact on students, facilitators and faculty.

### Program Goals

- Improve overall student performance
- Increase retention of students within individual course sequences
- Increase number of students completing degrees in and entering careers in the sciences
- Create a model program that can be implemented at other highly selective institutions
- Identify the components that are necessary and sufficient for a successful program
- Understand how the program accomplishes its goals (e.g., how does it affect student learning?)

## Collaborations

Provost's Office

Department of Biological Science

Department of Chemistry

Department of Physics and Astronomy

McCormick School of Engineering

Department of Mathematics

The Multicultural Center

Office of Admissions

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# GATEWAY SCIENCE WORKSHOP PROGRAM

Searle Center For Teaching Excellence - Northwestern University



## Program Background

GSW PROGRAM

- History of the Program
- Context of the Program
- GSW Proposal
- Relevant Literature

### History of the Program

Research has shown that students benefit from working in small groups to study and grapple with problems and issues they encounter in their classes. Realizing the potential power of combining "small group" and "peer learning", Uri Treisman applied both concepts to the historically-challenging calculus course by developing the *Professional Development Program Mathematics Workshop* at the University of California Berkeley and the Emerging Scholars Program at the University of Texas Austin. These programs seek to reduce academic isolation and provide a supportive community for participants, who meet for four hours per week in small multiethnic groups to work on more challenging problems. These groups were led by graduate student facilitators who asked questions and guided students through the problems without actually doing them for the students. This program, on the whole, showed success in enhancing student performance and reducing student attrition.

Inspired by the "Treisman model", Northwestern faculty applied these concepts to design the 1997 Gateway Course Workshop Program for Biology 210. The workshops were designed based on the strong trust in the ability of the students to benefit from and contribute to the intellectual work in the program, and it put a significant emphasis on advanced conceptual work. Participants in the workshops met in diverse groups of five to seven students once each week for two hours to solve conceptually-rich and intellectually-intriguing problems related to the course material. An advanced undergraduate student met with each group to facilitate the intellectual encounter necessary to solve the problems and develop a deeper understanding of the concepts involved. All students in Biology 210 were invited to join the program, though participation was strictly voluntary. Student participants received a 0-credit notation on their transcripts for their effort. Impact of this initial Biology Program on academic performance of students was assessed by comparing the performance of workshop participants and non-participants. After controlling for GPA and SAT scores, workshop program participants earned substantially higher grades than their non-participating counterpart.

This result generated genuine enthusiasm among faculty members, and the Workshop Program has been adopted by the Chemistry, Physics, Engineering, and most recently, Math departments at Northwestern University.

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## Context of the Program

Similar to many other universities, a significant number of Northwestern freshmen state career goals in medicine, law or business prior to matriculation. While there are not any special curricula to prepare for law or business school, the prospective medical school applicant faces significantly greater challenges - a significant number of students are discouraged to enter these fields by the rigorous pre-medical curriculum; less-than-satisfactory grades in the required introductory science courses may compel them to make alternative plans. Most pre-medical students at Northwestern take the following full year sequences as pre-requisites: *general chemistry (Chemistry 101, 102 and 103)*, *organic chemistry (Chemistry 210-1, 2, 3)*, *introductory biology (Biology 210-1, 2, 3)*, *general physics (Physics 130-1, 2, 3 or Physics 135-1, 2, 3)*. These courses are literally the gateways to careers in the life and medical sciences. Given the challenging nature of these courses, extra assistance is in great need for students to succeed in these "gateway" courses. Therefore the Gateway Science Workshop program was first introduced in the gateway disciplines and courses.

Northwestern is a Research-1 (R1) university. Unlike faculty at non-R1 institutions, Northwestern faculty do not focus primarily on teaching. They spend a considerable proportion of their time on research. As faculty play a crucial role in the GSW program, this presents some special challenges for implementation of the workshop program at Northwestern and other R1 institutions. These include; how to maximize faculty input into facilitator training when faculty time is limited, how to communicate faculty support for the program if faculty are not directly involved in facilitator training, and how to streamline the problem writing process to reduce the time commitment required by faculty. As one of the main goals of the GSW program is to develop a model program that can be implemented at other R1 universities.

## GSW Proposal

If you are interested in obtaining a copy of the GSW proposal, please contact us at: [workshops@northwestern.edu](mailto:workshops@northwestern.edu)

## Relevant Literature

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# GATEWAY SCIENCE WORKSHOP PROGRAM

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## Program Organization

GSW PROGRAM

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### General Organization

The Gateway Science Workshop program (GSW) consists of five disciplinary "Advanced Conceptual Workshops" in Biology, Chemistry, Physics, Engineering and Math. Each workshop is associated with the following gateway course sequences: Biology 210, Chemistry 101-102-103, Chemistry 210, Physics 135 or 130 Engineering Analysis and Math 214. Currently, we have 113 workshop groups in total: 20 in Biology, 20 in Chemistry, 19 in Physics (135 and 130 combined), 22 in Engineering and 10 in Math.

All students enrolled in the above course sequences are invited to participate in the workshop program, and a simple application process is required. Accepted students meet once a week for two hours in groups of five to seven students, with an undergraduate facilitator who completed the same course successfully in a previous year. Together students work collaboratively on conceptual, challenging and interesting problems related to their course material. There is no formal evaluation on student performance in the workshop, though students receive a zero-credit notation on their transcripts for their effort.

Facilitators are the "leaders" of the workshop groups. They are a specially selected group which consists of individuals with excellent academic background, outstanding interpersonal skill, interest in teaching, and a caring nature. Facilitators receive continuous and rigorous training in two forms:

- Weekly meetings with faculty who develop workshop problems
- Training seminars with teaching experts on pedagogical issues relevant to workshop facilitation. Facilitators also participate in other forms of training activities to improve their facilitation skills. In addition, facilitators contribute to the program evaluation effort.

Faculty play a crucial role in the GSW program. Typically the faculty member (or members) who teach the course sequence is in charge of the workshop program associated with the course. There are two major responsibilities for the faculty-in-charge:

- Develop workshop problems
- Meet weekly with facilitators to help them gain complete understanding of workshop problems. Faculty are closely involved in efforts to evaluate program effect, improve program quality, and steer program

development direction.

The Searle Center for Teaching Excellence takes the responsibility for managing and evaluating the GSW program. The project team works closely with the parties mentioned above to ensure the program's smooth operation. In addition, the project team cooperates with various academic or administration departments at Northwestern, as well as members of other universities in the country. In fact, the GSW Advisory Board, which meets regularly, consists of distinguished experts from a wide range of fields that are related to the program.

### **Organization by Discipline**

GSW is generally organized in a uniform fashion across disciplines. However, certain variations do occur due to individual departmental differences. Some examples are:

#### ***Biology:***

Instead of the faculty who teach the course, an experienced and dedicated lecturer is designated to develop workshop problems and train facilitators every week. The course instructors are periodically updated of program progress, and provide other forms of support when needed. This is one of the alternatives we have been experimenting with to alleviate the research and teaching burden on faculty members.

#### ***Chemistry:***

In assistance to the faculty who teach the course, one or two graduate teaching assistants (TAs) are included in the problem development process. The TAs develop the problems under close supervision of the faculty members and occasionally train the facilitators.

### **Future Directions**

We are constantly seeking ways to improve GSW to make it a more effective and enjoyable program for participating students, a more beneficial and meaningful experience for facilitators, a more valuable and efficient model for faculty members, and a more practical model for the institution. Therefore, we welcome any suggestions or comments. Please email [workshops@northwestern.edu](mailto:workshops@northwestern.edu).

Thank you.

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