

## **GIFTS: Meeting the students where they're at: a flipped model of office hours**

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First-year students are often reluctant to visit office hours or seek out tutoring. Many first-year students will spend hours on an assignment without making progress when a quick answer from a professor would help them progress. Because of this, the authors have experimented with holding office hours in student-friendly locations at high-traffic hours. The chosen site is a student common space with comfortable seating, large and small tables, private study rooms, computers, and a tutoring area. This allows us to make more efficient use of otherwise underutilized office hours and promote tutoring opportunities nearby. The goals of holding "public" office hours are to encourage students to approach professors with questions and to have regular study sessions during office hours, even if they do not anticipate having questions.

One of the authors is a math professor who sees students from a wide range of majors, and the other author is an engineering professor who teaches a large percentage of first-year students. As an engineering school in a largely rural area, many of our engineering students start behind in the math sequence. These students often need to complete two math courses before they can take calculus and sequenced engineering courses. Developing introductory math skills is essential for these students to be successful in engineering. Much of our time in office hours is spent tutoring students in mathematics, and the drop-in format of the office hours can be less stigmatized for students who are reluctant to sign up for peer tutoring.

The office hours are promoted in both authors' classes, by other faculty in the college, and in the student tutoring center. In addition, students will often recommend these office hours to friends in other classes or bring a friend in person to join the office hours. At-risk students are encouraged to also sign up for peer tutoring (right next door).

In previous years, we had office hours for two hours one night per week, with the hours scheduled between 6 and 9 pm. We have found that students often have labs or other obligations until 5 or 6, so office hours at this time encourage them to get help in a place where they are likely to find other students they can work with. One of the authors has experimented with morning office hours in the library in the past, but they were not significantly better attended than normal office hours. One to two students a week visit normal office hours compared to five to twenty each session in public office hours. Several students used these times as a study hall, and we were able to help them form study groups. This year, we expanded public office hours to two afternoons and one evening a week. We spent six hours per week in the library, helping students most of that time. Office hours were well received and helpful; however, it led to some faculty burnout late in the semester. In the future, we plan to spend less time in public office hours (probably four hours total, approximately half of our normal office hour time).

We found that upper-level students often have longer questions, which can be frustrating to lower-level students waiting for help, but having two faculty with different but overlapping specialties means that the second faculty member can help with basic material (e.g., the engineering professor helping with algebra or trigonometry while the math professor works a long differential equations problem, or the math professor helping with statics calculations while the engineering professor helps a junior level student). Both authors regularly work with students from outside their own classes and refer these students to one-on-one tutoring.