

# Michael Pritchard's Commentary on "The Under-Prepared Student"

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The Under-Prepared Student

In general, Dr. Franklin has the same responsibilities to all of his students, including making himself available to them during his office hours. Of course, if a large number of students show up at the same time, he will be unable to accommodate all of them unless he can meet with them in a large group, or a manageable set of smaller groups. If that has not been prearranged (as, say, a group study session), it is unlikely that it will work. So, it may happen on occasion that the attention Franklin needs to give some of his students will result in limiting others' access to him during a given office hour period. Apparently, that is what happened the first time he talked with Jim.

The first meeting with Jim alerted Franklin to serious shortcomings in Jim's understanding of algebra. However, rather than ask Jim what his math background was, thereby alerting Jim that he might not be sufficiently prepared for the course, Franklin "checks Jim's records" (presumably without Jim's knowledge). Especially since Jim's academic transcript is not a public document, it would have been preferable for Franklin to ask Jim directly about his math background. This strategy might have prepared Jim to begin asking himself whether he should continue in the course, a decision he faced later, but only days before the deadline for dropping classes.

Perhaps encouraged by the fact that he was willing to help him for 45 minutes the previous week, Jim returned to Franklin's office the next week with more questions. Given the conclusion he had already drawn about Jim's math skills, if there were others waiting to see Franklin, he might have arranged for another time to meet with Jim. Although one cannot always predict how long a session with a student will last, Franklin might have suspected that another long session with Jim was likely. However, by the end of this second session he should have realized that Jim was a special case that should no longer be allowed to dominate his regular office hours at the expense of his other students.

Certainly by the end of this second session, Franklin should be counseling Jim rather than simply trying to help him solve chemistry problems that require math skills that Jim lacks. Franklin could recommend that Jim seek some math tutoring. Although he should advise Jim about what sorts of math skills he will need, it is not Franklin's responsibility to provide that tutoring himself. (Should he decide to do so anyway, it should not be at the expense of his other students; he should arrange to meet with Jim outside his regular office hours.)

As stated at the outset, in general Franklin has the same responsibilities to all of his students. However, he may have special responsibilities regarding chemistry majors in his class. As a teacher of Quantitative Analysis, he may have a "gatekeeping" role regarding the major itself. No matter how much interest he might have in helping Jim make it through his course successfully, he may also have some responsibility in assessing Jim's ability to complete the major. But, whether or not he has this "gatekeeping" function, Franklin is in a position to advise students about "what it takes" to be a good student in chemistry. Taking a few minutes to discuss his math deficiencies will alert Jim to the seriousness of this problem for both the Quantitative Analysis course and successfully completing the major.

Unsure about what to do, Franklin talks about Jim's case with his colleague, Dr. Winters. That is a reasonable thing to do. There is no need to mention Jim's name. In fact, Jim is probably not alone in having deficient math skills in the Quantitative Analysis class, even if he is the only one who has come to Franklin for help. Furthermore, it is likely that there will be such students in the future; it is good to develop strategies to help them when their needs become apparent. The alternate plans that Franklin and Winters come up with seem reasonable and responsible. However, it is not clear why Franklin tells Jim that he has the "potential to be a great chemist." Given the essential role of algebraic manipulation in understanding

chemistry, this comment seems premature and possibly falsely reassuring.