

UNDERGRADUATE ACADEMIC ADVISING

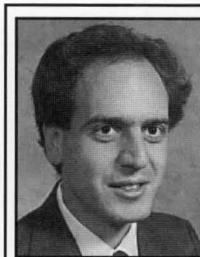
MICHAEL L. MAVROVOUNIOTIS

Northwestern University • Evanston, IL 60208-3120

The balance between research and teaching has been the subject of considerable analysis in the past few years, but less attention has been paid to another important component of academic activity: academic advising. It is easy to overlook the significance of advising and classify it as a support activity with only a minor role in the educational effort compared to the central role of classroom teaching. But if a poorly advised student is in the wrong major or the wrong class, given his or her talents and desires, then even the best classroom teachers are sowing their seeds on poor soil.

Advising also has an impact under less dramatic circumstances: If students do not understand the role of a class for their needs and goals, they would be taking the right class for the wrong reasons and would likely lack the motivation to do well. In short, advising can be an invisible hero allowing classroom teaching to bear the most fruit, or a villain acting as an obstruction and inhibitor to classroom learning.

There is a variety of competing theories and strategies for middle-school or high-school advising,^[1] but literature on the advising role of faculty in undergraduate education (let alone *engineering* education) is rather limited, and some of it addresses only specific subareas, such as women's issues,^[2] undecided students,^[3] morality, prejudice, and mental health,^[4] and it tends to target counseling or student-affairs offices rather than university faculty advisors. There is, nevertheless, some useful (and essentially unanimous) guidance in the literature. Winston and his coworkers have presented a comprehensive treatment of undergraduate academic advising^[5] as well as a succinct practical guide.^[6] Other sources include an early report published by the National Education Association^[7] and more recent handbooks by Gordon^[8] and by Kuh.^[9] This brief article presents some of the observations and recommendations made in these sources along with the author's own views and experiences.



Michael Mavrovouniotis is Associate Professor of Chemical Engineering at Northwestern University. He received his Diploma of Engineering from the National Technical University of Athens (Greece) in 1984 and his PhD from the Massachusetts Institute of Technology in 1989. Prior to joining Northwestern in 1993, he served on the faculty of the Institute for Systems Research and the chemical engineering department at the University of Maryland, College Park.

IMPORTANCE OF ACADEMIC ADVISING

Academic advising is an integral part of the educational process, not just a support service. Effective advising programs offer students an opportunity to realize their full potential.^[5] The educational process and the goals it serves are complex and confusing to most undergraduate students. The tremendous opportunities offered by a university education, with all their ramifications for the rest of the student's life and career, can easily be missed or under-used. As the student is coping with the complex university environment it is easy for him to focus on minor details and daily duties rather than on his personal and educational development. The advisor's office, with its many systematic student contacts, is a powerful mechanism for implementing intentional and deliberate student development.^[6]

Academic advising has an impact on students' retention, academic success, and the career-choice process.^[6] Its influence and significance are much greater than its duration would suggest because it occurs at critical points when the advisee is faced with crucial decisions—decisions which can be facilitated by the professional experience and personal maturity of the advisor.

Unfortunately, many present-day advising programs operate as bureaucratic, clerical activities on the periphery of effective educational services.^[6] With the growth in univer-

sity enrollments in recent years, academic advising seems to have become a victim of the rush to admit greater numbers of students. As a result, the nature of students' educational experience has been profoundly affected.^[5] Surveys of students and college administrators alike reveal general dissatisfaction with both the quality and the effectiveness of academic advising on most college campuses.^[5]

ADVISING ROLES AND MODES

There can be considerable variation in advising modes. The *prescriptive* advisor is one who focuses on student limitations.^[8] Students are assumed to be naturally immature and irresponsible, and thus the educational pace, mode, and direction are controlled by the advisor. *Developmental* advisors, on the other hand, concentrate on students' potentialities and view students as striving, responsible, and capable of self-direction. The advisor's role in the prescriptive approach is one of authority and judge. The developmental advisor's role is one of helper and interactive teacher.^[8]

There are limits to an advisor's responsibility to the students, and students must learn what these limits are. How intrusive should an advisor be? At one extreme, one might declare that students are adults who can read the catalog and therefore should make their own academic decisions; this reduces the advisor to a rubber-stamping role. The other extreme is to be in constant contact with students about every detail and technicality of every decision they make. There is an appropriate middle path in developmental advising. Advisors may try to motivate the students through encouragement and support, but the responsibility for taking action is the student's.^[8] Kramer and Gardner^[7] cite the advisee's "right to fail." Ultimately, the advisee makes decisions and assumes responsibility; the advisor should alert the student to potential consequences, but should accept the student's decisions even when they appear unwise and may lead to failure.

Kramer and Gardner offer an expanded classification of advisor roles, emphasizing that the roles shift depending on the particulars of the advising question and on symmetric roles assumed by the student. The advisor's role might be one of

- *An adult (signifying age, experience, and maturity)*
- *An expert (possessing mastery of subject matter area through training and achievement)*
- *A teacher (charged with transmission of skills and information)*
- *A researcher (investigator, explorer)*

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- *A friend (offering emotional and personal attachment; confidant)*
- *A judge (carrying out evaluation, assessment, arbitration, criticism)*
 - *An authority (possessing prestige and power, giving orders and directions)*
 - *A rubber stamp (confirming and agreeing with any position presented)*
 - *A lecturer (offering systematic and formal instruction to a body of knowledge)*

The advisor's response to a simple and common encounter can come from any of these roles. For example, when the student comes in with a drop slip and the request, "I want to drop a course," the advisor may check the rules on what courses may be dropped and when, or simply sign the slip and let the registrar figure out the legalities.^[7] Or, starting from the roles of teacher and friend, the advisor can set the administrative aspects of the request aside and try to find out what has prompted the student to make the request and whether a change in the student's long-term plans is under way (or may be needed). Misconception of roles between student and advisor is very common. To avoid miscommunication, it is important to clarify what role the student expects you to assume^[7] and either assume that role or adjust the student's expectation.

CHANGING THE SYSTEM: SEPARATION OF TASKS

In an epilogue to their excellent book, Winston and co-workers offer a model for effective, efficient, and attentive academic advising.^[10] One of their recommendations is the separation of the clerical, record-keeping side of advising from interpersonal and intellectual guidance.

Advising programs that emphasize registration and record keeping, while neglecting attention to the student's educational and personal experiences in the institution, are missing an excellent opportunity to directly and immediately influence the quality of a student's education. Such programs are also highly inefficient^[10] since they are most likely employing highly educated (expensive) personnel who are performing what are essentially clerical tasks. It is easier to set the right priorities for the faculty's involvement in advising if the process of academic advising is separated from class scheduling and registration. In many instances, class scheduling masquerades as academic advising, which explains why many in higher education view academic advising as simply an administrative chore.

In Winston's model, class scheduling and registration are to be accomplished by student paraprofessionals who are closer to the process than most advisors can or desire to be. Student paraprofessionals and support staff are more likely to master the mechanics and nuances of the registration process than are advisors who have other priorities to attend to, such as class preparation, research, and strategic administrative tasks. This neatly separates the developmental side of advising from the naturally prescriptive administrative side and allows the faculty advisor to more fully play the role of teacher rather than authority.^[8] An alternative to this systemic change is for a faculty advisor to cluster the clerical side of advising to a single meeting with all of his or her advisees.^[11]

The obvious risk in the separation of tasks may be less frequent contact between students and advisors. Students may consider contact with faculty unnecessary if the bureaucratic side of advising is handled elsewhere. Even faculty might come to regard exclusively developmental advising sessions as low-priority items, easily squeezed out of the faculty's schedules and attention. Thus, an important prerequisite for beneficial separation of tasks is that both faculty and students must come to regard regular advising contact as essential.

WHAT THE INDIVIDUAL ADVISOR CAN DO

The most important action on the side of the individual advisor is to adopt the developmental approach. Unfortunately, without the systemic change cited above, there is a certain incongruity between the developmental role and university regulations, since the advisor usually has the authority to approve or deny student requests and is responsible for ensuring that degree requirements are met. But great strides can be made by encouraging students themselves to master some of the nuances in the regulations, by explaining broader options and consequences, and by respecting the student's decisions. Naturally, lower-division students are less likely to be independent and responsible decision makers, and the advisor may need to be more proactive and leave somewhat less freedom to the students.^[11] This is understandable, and the advisor should provide the necessary guidance while gradually pushing the students toward more control and responsibility.

There is often incongruity between the student's and the advisor's perceptions of the process,^[8] so it is important to instill the developmental approach in the student. For example, students are often extremely reluctant to "take up your valuable time" if they perceive advising only in its prescriptive and clerical side. Such a consideration is not to be downgraded, but if you are interested in offering your assistance in developmental advising, it is important to convey to advisees your willingness to engage in conversation and consultation.^[7]

LEARN THE CULTURE OF YOUR STUDENTS

The influence of the culture of institutions and student groups on the educational experience is substantial.^[9] Each educational institution has its own culture, but there is often little intersection between the faculty subculture and the (undergraduate) student subculture. An advisor's entire interaction with students improves as the advisor gains familiarity with the culture the students are immersed in. It is, admittedly, not easy to learn the student side of the institutional culture, but even a general awareness of student life, customs, and habits is helpful;^[9] simple steps, such as reading the student newspapers (few faculty do!), are a good start. The process has an obvious autocatalytic character since, as you learn more, your interactions with students become easier and give you a clearer view of their culture.

Depending on how (in)homogeneous your institution is and how unusual your advisees, advising effectiveness might even require familiarity with specific student subcultures, groups, or activities. It is not uncommon for advisees' academic problems to be related to the study habits of living groups.^[9] If one of your advisees is on the swimming team, make it a point to follow the results of the swimming competitions and find out a little about the students' travel and training schedule (you will discover that swimmers train every day for about four hours, or until they are completely exhausted).

On the subject of culture, Kuh^[9] offers several pieces of advice directed to student-affairs professionals, but clearly relevant for faculty: know thyself—your values and assumptions; discover the various student cultures on campus; use cultural perspectives for diagnosis and analysis; recognize the importance of living areas and affinity groups to student culture; be wary of attempts to systematically change student culture, but recognize that student cultures can be changed; use cultural perspectives when working with marginal groups.

STRUCTURE OF THE ADVISING SESSION

In routine advising sessions, whether associated with registration or not, my own strategy is to simply review progress-to-date and the future plans of the student, trying to learn a bit more about the student's talents and goals with every session. The following simple structure is adequate—provided that the advisor follows up on student answers with genuine interest, useful observations, and information that helps the student place the modest academic issues in the greater context of her education and career.

- ▶ First, take care of the administrative details rather briskly, making sure they don't consume the entire meeting. Some of the administrative matters can be used as entry points to probe the student's academic and career interests during the rest of the meeting.

- ▶ The second step is to ask some questions on the advisee's recent work: Which classes did the student like or dislike last quarter and why? Were there any unexpected academic difficulties or achievements in recent classes?
- ▶ After assessing the past and present, ask for the student's thoughts on educational plans such as specialization areas and career paths. Offer guidance on feasibility and good means for achieving the student's goals—such as course choices or internships. Mention other opportunities the student may have overlooked or may be misinformed about, such as graduate or professional education.
- ▶ Encourage the student to get second opinions on major issues. Suggest other faculty, university offices, or other information sources.

In those cases where the student comes for a special consultation, the following generic structure, adapted from an outline given by Gordon,^[8] can be used for the advising session.

1. Opening the Interview

- Show openness, interest, and concentrated attention.
- If possible, obtain the student's folder or record so that relevant information is available during the interview.

2. Identifying the Problem

- Ask the student to state the problem, helping the student articulate, if needed. Gather as much information as possible by prompting the student to provide all relevant facts.
- Is the problem presented by the student actually covering a different real problem? Ask open-ended probing questions.
- Is the student presenting several problems? Ask the student to isolate the primary foremost concern. Multiple problems may have a single root cause that should be identified, or the student may be so troubled by one issue that he or she takes a gloomy view that makes lots of secondary issues appear as equal obstacles.
- State your interpretation of the problem and give the student a chance to clarify, elaborate, or correct your interpretation.

3. Identifying Possible Solutions

- Ask the student for his or her ideas on solving the problem. Help the student generate additional

alternative solutions.

- Discuss the mechanics of each solution (what, how, when, who). Discuss implications of each solution. Will a solution create conflicts with other plans?

4. Taking Action on the Solution

- Plan a specific order and time frame for action steps, including procurement of additional information and referrals to other university resources or offices. The advisor should have handy referral information on a variety of campus offices and resources.
- Plan follow-up by the student and/or the advisor.

5. Summarizing the Transaction

- Review what has transpired and restate action steps.
- Encourage future contact; make a definite appointment for review if necessary.
- Once the student departs, summarize the transaction for your own notes or for the student's file.

While the above structure is appropriate for most advising sessions, the duration of the session can vary a great deal. In my own experience, ten minutes is the bare minimum for any session, no matter how trivial the problem. A simple answer to a student dropping in with a simple question only takes a minute or two, but there are two reasons for taking longer. First, in the interest of cultivating the relationship and ensuring that the student will not hesitate to seek future contact, the advisor should take the time to make the student feel at ease, inquiring about other advising issues or the student's interests; it takes ten minutes to demonstrate your interest in the advisee. Second, it is important for the advisor to explore the origin of the question and whether it is related to other obstacles the student is faced with but has not brought up. Naturally, advising sessions dealing with complex issues, such as specialization and career paths, will take much longer than this minimum and may have to be broken down into a series of meetings; in such cases, at the end of each meeting the student should always be left with a set of questions to ponder for the next meeting.

The commonplace use of electronic mail by faculty and students provides an alternative efficient way to answer simple questions without appearing hurried or damaging the advisor-student relationship. If more discussion is nevertheless warranted, the advisor can respond with an offer for an appointment, which is easily arranged by e-mail.

In the opposite extreme, a note of caution is in order; serious problems of a nonacademic nature (even if brought about by academic events) occasionally arise (*i.e.*, severe depression, thoughts of suicide, substance abuse, acute inter-

personal problems among students). The engineering faculty advisor is unlikely to possess the requisite special training and skills to deal with such issues effectively, and a well-intentioned attempt to help might even worsen the problem. It is best to refer such problems to trained counselors available at any university. To make sure that the student receives help, the advisor may insist that an appointment be made right then and there. Afterward, the advisor should follow up with the counseling office to make sure that the student kept the appointment, as well as check with the student periodically so the student knows someone is concerned. In order to deal with such crises, the advisor should be aware of all the relevant campus resources, along with contact names and phone numbers—before any crisis occurs.

CONCLUSION

The central premise of this article is that the advising process is an integral part of the educational process. Unfortunately, it is too often misinterpreted as a purely clerical task and receives only limited attention by the faculty, students, and administration. A valuable systemic change would be the separation of the clerical and developmental sides of advising; the former can be handled by staff, allowing the faculty's full attention to be devoted to the intellectual growth of the students.

Faculty advisors should strive to improve the strategies they follow in encouraging student contact, acting in a teaching and supportive role, allowing the students ultimate decision-making and responsibility, and helping students to focus on the greater educational and professional decisions and objectives and the means for accomplishing them.

ACKNOWLEDGMENTS

The author wishes to thank Professors Richard Felder, John O'Connell, Christopher Bowman, William Miller, and Julio Ottino for their comments, which guided a substantial revision of this paper.

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LABORATORY EXPERIMENT

Continued from page 101.

lem, particularly for the 1990s, it is based on well-tested combustion phenomenon and not limited to a special limited situation, and the data from the unit are not complete, forcing the soon-to-be practicing engineers to solve problems and perform an analysis based on their best judgment.

The experiment is best performed over an entire day, so trying to carry it out in a half-day session is not recommended. We strongly advise that the entire experiment be located in a fume hood so that the flue gas is swept out of the unit and no dangerous or noxious odors are emitted into the laboratory. Finally, the potential to overheat the fluid-bed unit from feeding too much fuel gas means that the students need to be monitored periodically to be sure they are operating the unit in a controlled and safe manner. The use of a high-temperature limit switch will eliminate this potential problem.

ACKNOWLEDGMENTS

KKR wishes to express his extreme appreciation to James Jaeger in Northwestern's machine shop for his help in machining and fabricating the fluid-bed unit. He also appreciates the technical information provided by George Rasmussen at Ecova for the incinerator design. Finally, the Northwestern Chemical Engineering Department wishes to express its thanks to Procter and Gamble Company for generously providing the funds for the development of this "hands-on" engineering experiment.

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