In spring 2000, when I was elected chair of the Department of Chemistry and Physical Sciences at Pace University, the very low enrollment of majors was jeopardizing our American Chemical Society–approved program. The staff of seven full-time faculty and 15 adjuncts was far too large and too costly for a student body of 24 chemistry majors. Were it not for the service courses our department provided to other schools and departments, the program would have been dropped long ago. Administration sources told me that we had to increase enrollment or lose the major.

Aware of this problem, my predecessor had tried to create a program combining the B.S. in chemistry with an M.B.A., but it only attracted one student, and that person was already in our program. I tried to craft similar programs, one combining a master's degree in computer science and information systems with the chemistry B.S., but that only resulted in one additional student. I then copied a biochemistry program from another Pace campus, and that brought an additional five students, mostly taken from the biology department.

The increase of 29 percent sounded good, but it only represented seven students and did not attract any new outside candidates to our department.

In thinking about new programs, I quickly adopted two lessons I had already learned as a department chair:

• Listen to suggestions.

• Do not blame failure on others.

Although the suggestions given to me did not appreciably pan out, they did have possibilities. The only discussions about enrollment that I would not get into were those that blamed other people. I knew it would be counterproductive, for example, to criticize the administration for not advertising our current program.
CONCEIVING A NEW PROGRAM

Within our adjunct ranks, we had a lecturer who worked full time in the Office of the Chief Medical Examiner of New York City. He had been hired to teach an introductory level forensic chemistry course for the criminal justice students. Thanks to the increase in crime-solving television programs, that course became popular overnight, and I had to open several laboratory sections to meet student demand. I then asked myself the following questions: If forensic chemistry is of such great interest, would it not also be of interest to a science major? And what types of programs are out there now? The answers to these questions came from a web search. Not surprisingly, my next suggestion is:

- Use the web. Searches provide incredible amounts of information.

  The web search showed that this country has only a few programs that lead to bachelor's and master's degrees in forensic science. Reviewing those sites, I found that, although their curricular requirements varied greatly, the programs were rich in the fundamental science courses we already offered at Pace. Now I was ready to take the next steps:

  - Bring in colleagues and others to brainstorm.
  - Create a unique curriculum.

  I invited a group of our faculty to meet with my adjunct forensic scientist and several of his contacts in order to look at existing programs. After several meetings, a program of study began to emerge. We had agreed that our proposed curriculum had to be challenging and different. One innovation we decided on was to require our graduate students to do an internship as well as write as a thesis. In developing this curriculum, I soon realized that, although it was coming out of the chemistry department, the students would be taking as much biology as chemistry. So I quickly changed the name of the program from "forensic chemistry" to "forensic science." With the plan of study in hand, I began the tedious process of convincing the university that we should continue developing and eventually adopt the program.

PROVING THE NEED

I requested that our Office of Enrollment Management do a search to see if there was demand for such a program. Within a few weeks, they responded that there was little interest in such a major. I then delved into their source of information and found that it was based on data that was at least two years old. Pointing out the interest in forensic science generated by popular television programs such as “CSI,” I
convincing the office that they needed more data. Then I called forensic laboratories across the country and learned that they anticipated a growing need for forensic scientists. In light of this information, the Office of Enrollment Management finally gave me the approval to continue moving the program along. From this experience, I gleaned two more rules for success:

- Remember that "no" is not an absolute answer.
- Back up all statements with data.

**FIGURING THE BOTTOM LINE**

I then took our program to the chief financial officer, who patiently helped me with a pro forma analysis, a cost study of how financially viable the program would be over a period of four years, based on start-up costs and potential enrollments. We found that only three new courses would have to be added for the undergraduate program; therefore, the program would succeed with only a minimum number of students. Also, because it would help fill up classes that were heavily undersubscribed, the program had the potential to be very successful financially.

Before becoming chair of my department, I had served on many university-wide committees; consequently, I knew most members of the administration, and they were generally very pleased to help. Hence another rule:

- Know the people from whom you will need to seek approval.

And an observation:

- Serving on university-wide committees has some benefits.

I then went to my dean's office and presented the program. Concerned that offering an M.S. program would be risky and expensive, both the dean and our provost asked me to delay it for several years. Consulting with colleagues working for forensic laboratories, I discovered that most of their employees had only bachelor's degrees and would be very interested in earning a master's. With those larger numbers in mind, I convinced my dean and my provost that we should either run a full program or drop the whole thing. I felt confident in my program, and I was willing to take a chance. In other words:

- If you are convinced you are right, stick to your guns.
- Be straight and totally honest. It is appreciated.
CONVINCING, PLACATING FACULTY COMMITTEES

The most time-consuming part of pushing a program ahead is going through the stages of faculty approvals, particularly through the various curriculum committees. In my case, these interactions became a give-and-take process, as one group or another was concerned that the new program would trespass on its turf. The only way through such infighting was to make slight accommodations to other departments. I had originally intended to have the program running on both Pace campuses, but when I ran into too much reluctance (an M.S. program in environmental science had just begun), I simply pushed to have it on my own campus. This illustrates two more rules:

- Be as flexible and inclusive as possible.
- Know when to run.

GETTING DEANS’ COUNCIL ADVICE, APPROVAL

With the various approvals done, I then had the provost present the program to the Deans’ Council. It was then the middle of summer 2001, and I wanted to implement the program for that September. Consequently, I didn’t wait for others to send the deans the curriculum. I approached each dean separately and explained everything I had been doing. The deans were very helpful. Based on their own experiences, they offered suggestions to better organize the program. I incorporated their suggestions and obtained Deans’ Council approval. Hence I quickly learned:

- Listen carefully to the advice of those who have pushed for new programs themselves.
- Legs can be a faster method of travel than mail.
- Personal interactions lead to a greater chance for success in obtaining approvals.

APPLYING FOR STATE APPROVAL

I was ready then to obtain the administrative signatures needed to apply to the State Educational Department for program approval. I brought the applications into the offices in person, and I was loaded down with backup data to support any questions. I also had publicized the program a lot, and I had spoken to many about how its success could be a major asset to the university. Even at this point, when the provost once again suggested that we eliminate the M.S. portion of the program, I threatened to drop
the whole thing. With all the publicity and hype, and with no one else to take over, the provost abandoned his suggestion, and the forms were signed. The lesson here:

- Never run scared; be ready to just give up, but only as long as others know they have something valuable to lose.

**SEPTEMBER 11**

Finally, by the end of August 2001, the program was in the mail. I realized that it would be too late to implement the curriculum that year, as it usually takes several months for the state to approve a program. So I waited patiently, not expecting anything else to get in the program's way. And then, two weeks later, on September 11, while staring out my window, I saw a disaster strike just a few blocks away. Clearly the events and the aftermath of that day had a great impact on everyone. Suddenly new programs meant nothing—we were too concerned about survival to worry about curriculum.

Eventually, our university reopened (it took almost two weeks), and I had little interest in anything but trying to help recreate the warm environment of the university for our students and faculty, many of whom were suffering from post-traumatic stress disorders. I had assumed that any program approval would now take much longer than I had anticipated. Not so. In mid-November, we were notified that the state had approved the entire program.

**LAUNCHING THE PROGRAM**

I then began the process of getting the program on the books. This involved setting schedules, writing course descriptions for the catalog, and working closely with other departments to avoid any conflicts of course timing.

The next important step was to notify the world that our program now existed. I had already asked a member of my department to create a web page that would describe the details of our curriculum. With the help of our adjunct forensic scientist, we included many links to other sources, such as professional forensic organizations, and we included a section on frequently asked questions. Once the web site was in place, I made multiple web searches and listed our new program with at least 20 different sites and organizations. Within a few weeks, e-mail inquiries about our program began to arrive, eventually reaching about 15 per day. At no cost for advertising, the web had publicized the program all over the country and, indeed, all over the world. In other words,
The result of all this effort is history. Forensic science majors outnumbered the chemistry majors by almost a factor of four. Developing and running the program was consuming such a huge amount of time, that I accepted the position of Forensic Science Program director, relinquishing my chemistry department chair position.

**BEING A HANDS-ON DIRECTOR**

As the program director, I have spent many hours answering all e-mails from potential students, and I have developed close ties with contacts in our undergraduate and graduate admissions offices. I have run several information sessions for graduate applicants and have attended every open house for potential undergraduate applicants. I was able to persuade the American Association of Forensic Sciences (the premier professional group) to hold a special educational conference at Pace University, gaining a huge amount of publicity. I also quickly learned to be accessible to my majors, helping them plan their schedules and finding ways to open multiple sections when enrollments exceeded class limits.

At the end of the first year, the program had 27 undergraduates and 24 graduate students, about triple the break-even point. With word going out on the success of our program, the second year's class is projected to be several times larger than the current group. So a final word of advice is:

- Be very visible and go all-out to help students solve problems.

**A SUMMARY OF HINTS**

- Know the key members of the administration and the various curriculum committees.
- Create a clear outline of your proposed program, using as much of the present university curriculum as possible.
- Show how your program will enhance other programs and will not offer competition that will draw students from other programs.
- Bring in consultants who understand both what you are trying to do and the atmosphere under which you are working.
- Use the web to obtain information about competing programs as well as to determine the potential job market for program graduates.
Learn that "no" is not necessarily an answer you have to accept. Be persistent.

Follow the advice of deans and other program directors who have been through the process.

Once your program has been approved, use the web to advertise and promote it. Add links such as an online application form.

Be sure that you or others are available to answer e-mail questions from potential applicants.

Be available to help both students and faculty solve scheduling and other problems.