

Providing Instructional Support: Supervisor of the Class Preparation Unit

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For the last 8 years, I have held a position I love—Supervisor of the Class Preparation Unit of the Microbiology and Molecular Genetics Department—working 40+ hours per week and earning about \$37,000 per year. This is a great job with broad responsibilities requiring many skills. But it was not a direct leap from obtaining my B.S. in Microbiology (from Michigan State University) in June of 1990 to this position. Getting here involved having many experiences, including serving in the military for 8 years, where I became very used to meeting deadlines and dealing with numerous staff. Getting here also took working in research labs and clinical labs (human and veterinary) for several years, where I became adept at many important microbiological techniques.

The Class Preparation Unit consists of numerous individuals, both staff and student employees, and it services all labs and classes taught by the Microbiology and Molecular Genetics Department. I supervise the Class Preparation Unit staff, and I directly contribute to the preparation of all experiments, including planning the experiments and purchasing supplies and media. Much of the planning for the labs is done at least a year in advance and involves determining the amount of media and cultures needed for each experiment for each semester, according to the number of students enrolled. It also involves suggesting or getting ideas for alternative supplies, media, and cultures, if necessary. This requires that I routinely consult with faculty about their demands for classes and laboratories, and it also requires great attention to detail. We spend considerable time pouring over laboratory manuals to ensure any changes in them are reflected in my orders for supplies.

The Class Preparation Unit also provides other types of support. We set up all equipment, media, and supplies in the labs so that they are ready for use when each class or lab starts. This facilitates classes running more smoothly, helps ensure that everyone has a good experience, and reduces the workload of the teaching faculty. I help faculty with classroom lectures by providing materials, equipment, and student proctors, and I assist in developing the content of classes. I arrange tours of labs so that students can see microbiologists in a variety of lab settings, including the Class Preparation Unit. In addition, I serve as a continuous source of information for all the teaching faculty and teaching assistants, and I meet with them regularly to discuss whether each experiment went well and what can be improved, as well as the upcoming experiment. Our unit also provides media and cultures for outside research labs on tight budgets.

Having technical duties and management duties is a rewarding challenge. A good portion of each day is spent in meetings with Class Preparation Unit staff and student workers. I take a keen interest in mentoring all the students I hire who show a sincere interest in science as a career. I teach them practical skills like Gram staining, identification of bacteria, streaking plates, and molecular biology procedures. Many of these students are now very successful and I continue to hear from them, either just to say hello or to request letters of recommendation. The best thing about mentoring students is watching them apply the skills and attitudes they have been taught on the job, like shedding lone wolf work habits and working as a team, meeting deadlines, displaying organization and professionalism, and interacting with and showing respect for authority. Most of the students who learn these important skills do very well in their future endeavors.

My job is, in a nutshell, a balancing act. I have to be ready to manage conflict between the teaching staff and the class preparation staff. I usually get all of the complaints first if something is not right with the experiment, supplies, or media. I have to be ready to take care of the problem as quickly as possible so the students in the classroom can continue their experiments. Fortunately, I do not have this type of challenge all the time.

Over the years, my role in the department has expanded. I serve as a teaching assistant if needed, and I contribute in outreach to surrounding communities. My outreach activities have included participating in events such as Take your Child to Work Day, setting up displays on microbiology for students, and giving kids hands-on experiences by allowing them to make Gram stains and operate our media-making equipment. Also I am involved with setting up a high school Advanced Placement biology lab about molecular biology. In this lab, I set up experiments for isolation of plasmids, bacterial transformation, and gel electrophoresis. This lab serves another important function; we use it as a recruiting tool to attract high school students to Michigan State University and to our department. Furthermore in order to better assist faculty with developing lectures and laboratories, I have begun to attend the ASM undergraduate education conferences, where I have had the opportunity to exchange ideas with other teachers about how to best teach microbiology.

This job is never boring. I am always doing something different. Recently, I have been involved in preparing for my department's move to a new building. As a representative for the department, I had the pleasure of helping pick out furniture and scientific equipment. But as good as this job is, and as much as I enjoy the challenges it presents, it does have its drawbacks. It is difficult to witness the lack of support for teaching. Generally speaking, every year it becomes apparent that money and recognition don't seem to reach far enough to encourage investment in teaching microbiology. Tight budgets don't allow for more or better equipment or more staff in order to serve more laboratories. It is frustrating because I feel that microbiology is a valuable, versatile science and because I truly care about the students and the importance of their education.

Although many times it seems an overwhelming amount of activity is squeezed into 40+ hours a week, my boss says I am handling it well. I am glad because when the day draws to a close, during those quiet moments close to 5 p.m. when the sounds of everyone punching out and packing up signals the end of another day, I am very satisfied.