Report of the External Reviewer

Graduate Program Review of:
The Department of Environmental Toxicology
Texas Tech University

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An Overview

The Department of Environmental Toxicology at Texas Tech University has one of the best graduate programs in Environmental Toxicology in the country, perhaps the best in the country. The Graduate Program attracts many very good applicants, and trains those graduate students extremely well. It is clear that their graduate education is of excellent quality. The curriculum is rigorous, and includes sufficient breadth that graduates are prepared in numerous sub-areas within environmental toxicology, such as analytical environmental chemistry, statistics, and field ecology. There is a very strong research component to each student’s education, and many other important skills are being learned as well, e.g., project collaborations, written and verbal communication, networking at professional meetings, connecting with “real world” problems. In fact, the excellent problem-solving aspects of the students’ educational experiences in the Program make the training uniquely relevant to addressing society’s myriad environmental toxicology challenges. The placement of graduates with Ph.D. degrees reflects extremely well on the quality of “product” that is being turned out by the Program. Students are being very effectively trained in a culture of scientific research, learning how to identify challenges, how to define the key questions, and how to design definitive experiments, to interpret results, and to present and discuss the significance of their work.

Numerous other strengths of the Program also contribute to the quality of the education the students receive. The faculty who advise graduate students are all very well qualified in their scientific specialties and are overall highly respected among their peers in the field, as well as by the graduate students in the Program. The mentoring that the students receive is of uniformly high quality. The facilities available are, with one exception, state-of-the-art and compare favorably with any I’ve ever seen; the critical need for an animal facility is a serious limitation for conducting toxicological research. Overall, the extramural funding obtained for training the graduate students has been excellent, but over time, the lack of a modern animal facility could restrict their competitiveness for certain types of research funds. Another strength of note is the interdisciplinary nature of many Ph.D. students’ research and training; the strong interdisciplinary education yields uniquely qualified
graduates. There is good diversity among the graduate student body, there are adequate opportunities for them to become involved in outreach activities, they are involved in organizing and conducting the seminar series, and the students feel well connected with their individual mentors and with each other. Overall their graduate education experience in the Department of Environmental Toxicology is outstanding, as evidenced by their job opportunities as they enter the workforce and the stature of those graduates in the scientific community.