

California State University, Fullerton
College of Engineering and Computer Science
Civil and Environmental Engineering Department
MS in Environmental Engineering Program (Online)

Response to PPR Committee Recommendations:

We thank Program Performance Review (PPR) committee members for putting their sincere effort in reviewing our online MS in Environmental Engineering (MSEnvE) program. We are delighted to receive positive feedbacks pertinent to the program's performance. Specifically, the conclusion of the PPR committee that the program has been very successful in supporting its mission and achieving its goal makes us proud. We also appreciate the committee in recognizing the national level high ranking of the program (shared with MS in Software Engineering program) as well as our program's healthy growth. The PPR committee listed eight strengths of the program which resonates the uniqueness of our program. However, PPR committee also provided 12 recommendations for further enhancement of the program. Below are itemize responses to each of the recommendations. Recommendations are numbered and given in bold-font, our responses follow the recommendations in italics-font.

1. Provide guidelines for faculty members to streamline lectures and notes to maintain consistency in teaching style, while ensuring easy flow of information to students.

Response: Consistency in teaching style is the core strength of our program. Faculty members teaching courses in the program exchange ideas and we all follow same course content delivery methods. To further improve, the program will organize faculty retreat each semester to exchange ideas for maintaining the easy flow of information to students.

2. Offer deficiency courses in summer to prepare non-engineering students for the MSEnvE program before they enter into the program. The deficiency courses are recommended to be completed before enrolling into the MSEnvE program.

Response: Currently we allow students complete deficiency courses at their choice of institution. Offering deficiency courses will smoothen the transition of non-engineering students. We will explore the possibilities of offering deficiency courses.

3. Offer additional elective courses.

Response: Offering elective courses will add value to the program. However, our program being cohort-based program, adding elective courses will require restructuring the curriculum of the program. We will try our best to accommodate more elective courses into the program.

4. Include more hands-on projects.

Response: All courses in the program include hands-on activities which help our students nurture critical thinking required to be an environmental engineer. However, the program will encourage program faculty members to include additional appropriate content focusing on hands-on exercises.

5. Include more environmental modeling and design works in the courses.

Response: Environmental modeling and practical design-based problems are an integral part of our curriculum. A graduate level course “Modeling fate of Environmental Pollutants” is presently approved as a special course for Fall-2018 semester. In near future, we anticipate this course to become an integral part of the online MS Environmental Engineering program.

6. Include exercises that require the use of software typically used in environmental engineering.

Response: Many courses in the program use professional software typical of the environmental engineering profession. However, the program will further encourage faculty members to include software appropriate to their course.

7. Provide access to environmental engineering software through student’s online portal.

Response: Many of computer programs used by faculty members are freely available. However, the program will assess the need and explore the possibility of purchasing additional proprietary software and provide student access through the virtual lab.

8. Facilitate peer group interaction right from the beginning of the semesters. Consider organizing an orientation meeting at the beginning of the semester and peer-help discussion sessions before the mid-term and final exams.

Response: Peer-to-peer interaction is inbuilt into the structure of the program. Students use course blog, Skype, and Zoom for communications. Peer interaction is encouraged through active participation in online blog activities which are also part of the grading rubric. To further enhance peer group interaction, each year, the program will have face-to-face meetings, which will also be supported by web meeting capabilities. Such sessions will include incoming students, current students, alumni, and faculty members in the program.

9. Connect to alumni for enhancing learning experiences. In coordination with the alumni, organize field trips, tours, and invited lectures to provide hands-on/ field experience.

Response: The program faculty members are in contact with many of program alumni. We strive to improve the alumni relations further. Integrating field trips, tours, and invited lectures to further enhance learning experiences may not be possible given the nature of the program (online).

10. Implement a system for internal evaluation of courses and the program.

Response: The program will form a committee to review the current courses and other pertinent details of the program and propose any enhancement plans, if necessary.

11. Implement contingency plans for covering emergency situations that may require long-term absence of a faculty. The plan should include options for substitute faculty/ lecturer, faculty replacement, sharing of teaching materials, etc.

Response: Currently, full-time faculty members teach all courses in the program, which allows us to maintain the quality and high ranking of the program. However, in case of an emergency situation or to fill in during the periods when the program faculty are on leave, the program will hire qualified part-time faculty members to teach the courses. The program will provide necessary training to its part-time faculty members.

12. Use funds collected through students' online course fee for enhancing learning experience. Examples of such experience include field trips, facility tours, access to software, and professional development of faculty and students.

Response: The program will continue to ensure that the funds collected through distance education fee will be utilized for the activities that directly or indirectly benefit the students in the program and will follow the university policy on using these funds. Some of the proposed activities under consideration includes annual subscription to faculty member to use commercially available graphing and schematic software to draw flowcharts and other abstract illustrative sketches.