Assessment Plan for Chemical Engineering Graduate Programs

Ph.D. Program Learning Objectives (and Program Curriculum Elements):

1. Prepare students for careers in research, development, manufacturing, and management in chemical engineering and related disciplines; the program will also prepare students for careers in government and academics;
2. Program will prepare students with the knowledge of theory and methods used both broadly in the field and in a specialized area of the field. (Require students to take certain core courses and allow students to take elective courses covering advanced chemical engineering subjects as well as a range of related disciplines such as advanced materials, alternative energy, biotechnology, and fuel cells.)
3. Program will prepare students to contribute as original and creative scholars in their fields by publishing articles in referred journals and at conferences. (Program provides travel funds for students to give presentation in conferences.)
4. Program will prepare students as successful professionals in their fields: (Participation in the department Research Seminar is a program requirement. Most of the students also participate in weekly group meetings with research advisers. Students also give presentations about their current research progress as part of the Graduate Seminar Series. Students are able to interact with well-known scientists and engineers in Chemical Engineering and related fields.)
5. Program will prepare students as effective researchers able to complete independent research in their fields with coursework and sponsored research in advanced materials, green energy, biotechnology, solar cells, fuel cells and batteries. (Students will complete thesis research work in their chosen fields.)
6. Program will prepare students as effective teachers. (Students are required to act as teaching assistant for one year.)
7. Program will prepare students to hold positions of leadership in academic, government, non-profit and industry organizations

1. Master's Program Learning Objectives (and Curricular Elements):

1. Program will prepare students with the knowledge of theory and methods used both broadly in the field. (Require students to take certain core courses and allow students to take elective courses covering advanced chemical engineering subjects as well as a range of related disciplines such as advanced materials, alternative energy, biotechnology, and fuel cells.)
2. Program will prepare students to as successful professionals in their field. (The participation in the department Research Seminar is a program requirement and students are able to interact with scientists in Chemical Engineering and related fields. Students are also given opportunity to present their research in the Graduate Seminar Series.)
3. Program will prepare students as effective researchers in their field through with coursework and sponsored research in green energy, biotechnology, solar cells, fuel cells and batteries. (Provide opportunities for students to complete research project with faculty.)

4. Program will prepare students as effective teachers. (Students can participate in teaching assignments.)