CHARGE TO EXTERNAL REVIEWERS
FOR SCHOOL REVIEW

I. STRUCTURE OF JOINT PROGRAM REVIEW AND SCHOOL REVIEW

This external review committee is made up of 13 reviewers. Each of the five departments in the School of Engineering have been assigned two external reviewers. Additionally there are two external reviewers who have been assigned as School reviewers. The Chair of the External Review Committee (hereafter referred as the ERC) and the two external reviewers for the School will attend meetings that cover issues which affect the School in its entirety, such as strategic planning, undergraduate advising, and programs not housed in departments.

The Chair and two School external reviewers will use this document as their charge. External reviewers assigned to a specific department will have their own charge. Both charges are meant to be used as a guide for the external reviewers. We encourage the external reviewers to ask questions beyond what this document suggests based on their read of the Self-Study report(s) and their interactions with the faculty, staff and students on campus.

All external reviewers are urged to communicate with the Review Chair, Adrienne Lavine, before, during and after the campus visit to ensure that she is aware of your findings, and make sure that any issues which arise in your review are brought to her attention. All external reviewers are asked to read the following material assigned to them. If there is additional information you would like to receive based on your readings of these Self-Study reports please let the Senate Office know as soon as possible by contacting APRB Analyst, Adriana Collins at 949-824-5205 or ajcollin@uci.edu.

Reading assignments for external reviewers:

- School Self-Study report
  - All external reviewers
- Biomedical Engineering Self-Study Report
  - Yu-Li Wang
  - Jie Liang
- Chemical Engineering and Materials Science
  - Harold Monbouquette
  - Ramamoorthy Ramesh
- Civil and Environmental Engineering
  - Nikolaos Katopodes
  - Chris Hendrickson
- Electrical Engineering and Computer Science
  - Behnaam Aazhang
  - Alex Orailoglu
- Mechanical and Aerospace Engineering
  - Vigor Yang
  - Ganesh Raman
II. AREAS FOR REVIEW

We are interested in your overall assessment of the academic programs, graduate and faculty research, and teaching accomplishments and potential of the unit you are reviewing. Please make an explicit comparison of the UCI program with comparable programs in other major universities noted for their excellence in research and teaching. Your assessments of the quality of the undergraduate instructional programs will be used by the Council on Educational Policy. Those of the graduate programs will go to the Graduate Council. Both the Council on Educational Policy and Graduate Council are Academic Senate Council’s that meet once a month and are charged with overseeing the academic programs and courses on campus. We also welcome your opinion on issues that may fall between or beyond these areas, such as the quality of post-docs in the department, placement of graduate students, class size for undergraduates, or non-degree programs (if applicable).

While reviewers may recommend increased resources for the unit under review, recommendations for additional hires, for example, as well as for specific changes to course work, mentoring, etc., will often have a greater impact than a general blanket statement. Please make specific recommendations and identify the 2-3 most important priorities. The clearer your justifications for these priorities the more likely your recommendations will influence the planning process.

III. SPECIFIC AREAS OF INQUIRY

Please incorporate the following specifics into your review, addressing graduate, undergraduate, and research programs. In doing so, please include your observations on the quality of the faculty and the School’s potential for distinction.

1. Schoolwide Issues
   A. Administration: Comment on the Administration of the School, including the Dean, Assistant Dean, Associate Deans, and any other officers that interact with academic programs. Are school resources distributed so that they advance the teaching and scholarship programs in the most effective way? Does the current administrative structure make sense for fostering excellence in research and teaching? Is the administration effective in its relationship to other schools and to units outside the school? Comment on the relationship between departments and their relationship with the Dean’s office? Please comment on the School’s responsiveness to the primary concerns that were raised in the previous program review. Evaluate how the School has effectively developed connections across the campus with other academic units. Comment on the strategic plan for the School and the likelihood of achieving the goals outlined.

   B. Curriculum and Instruction: What suggestions do you have for enhancing the quality of instruction in the School? Is the school utilizing Teaching Assistants most effectively? Is workload shared equitably across departments? How might the School of Engineering contribute more fully to teaching breadth courses that serve undergraduates outside the School? Comment on the quality, quantity, cohesiveness and relevance of schoolwide requirements for engineering majors.
C. **Advising and Mentoring**: How effective is undergraduate advising and the Counseling Office? Is the technology, including the use of historical data and data mining, used effectively to advise students of their most appropriate path to graduation? How effectively does the School serve undeclared students? How effectively is the School serving external and internal transfer students? What suggestions do you have for strengthening advising and mentoring? Is the educational environment appropriate? Are students satisfied with their education? Are there effective monitoring mechanisms in place to identify distressed students and those with mental health issues, and help them with appropriate resources to deal with these problems?

2. **Graduate Programs in Engineering**
   A. **Interdisciplinary Programs**: How do the School’s interdisciplinary programs relate to each other? Are there important elements missing? Are there overlaps and redundancies? Could these be organized in a more efficient way?
   B. **Teaching Assistants**: Is the workload of Teaching Assistants appropriate? Is it uniform across the school?
   C. **Time-to-Degree**: Are the actual times to degree of the programs in the school appropriate?
   D. **Funding**: Is the funding model for doctoral students appropriate for attracting and supporting high quality students?
   E. **Degree Completion**: Are degree completion rates consistent with national standards? What strategies are in place for retaining doctoral students beyond completion of the master’s degree?
   F. **Learning Outcomes**: Are the Program Learning Outcomes (PLOs) identified by each program appropriate? Is each program making adequate progress in identifying areas of their program they’d like to strengthen, developing an action plan for doing so, and assessing progress?
   G. **Materials and Manufacturing Technology**: Some faculty have indicated an interest in growing the Materials and Manufacturing Technology program. Does this seem appropriate?

3. **Undergraduate Program in Engineering**
   i. **B.S. Engineering**: Comment on this Engineering program, referring to questions in Item III, #2 in the departmental charge.

4. **Diversity**
   A. **Schoolwide Issues**
      i. Comment on the diversity (e.g. gender, racial/ethnic) of the School, including the hiring and retention of administrators, faculty, and staff as well as graduate and undergraduate student enrollment and attrition.
      ii. What efforts have been made to recruit, hire, and retain underrepresented administrators, faculty, and staff, as well as recruit and retain underrepresented graduate and undergraduate students?
      iii. Have the efforts to recruit, hire, and retain underrepresented administrators, faculty, and staff as well as to recruit and retain underrepresented graduate and undergraduate students been successful?
B. Undergraduate and Graduate Issues
   
i. How effective is the School in serving underrepresented students? What is the perceived climate among students, faculty, and staff in support of diversity?

ii. How might the School contribute more fully to teaching underrepresented students, (i.e. counseling services, curriculum, tutoring services?)

iii. Diversity: Does graduate program diversity meet national standards? Is progress being made in this area, especially given the level of diversity in undergraduate engineering programs?

Lastly, we welcome your comments on the review process itself. How useful were the materials provided and information gained during your campus visit? Were these enough to make an adequate assessment of the program you reviewed? If not, what would have been helpful to have?

IV. SUBMISSION AND REVIEW OF FINAL REPORT

School external reviewers are asked to work together to write and submit a final report on what was assigned to you (Schoolwide Undergraduate and Graduate programs/issues) by April 20, 2016. Upon completion, we ask that you send the final report to the ERC Chair, Adrienne Lavine who will then transmit a complete document to the Academic Senate.

The Chair of the External Review Committee is asked to submit the completed, final report to the Senate no later than May 2, 2016. The report should be submitted via email to APRB Analyst, Adriana Collins at ajcollin@uci.edu.

The final report will then be submitted to the Dean of the School, the Provost and by the appropriate Senate Councils (the Graduate Council for graduate programs and the Council on Educational Policy for undergraduate programs).

The final portion of the review process is ongoing. Between 1-7 years later progress on specific action items noted in the review is discussed between the appropriate Senate Council and the program in question.

We thank you very much for your efforts on our behalf.