NOTE TO CAPR REVIEWER:
Read the Annual Report submitted by the program by visiting the Five-year Reviews and Annual Reports by Department page on the Academic Senate website; find the CAPR document that pertains to the last five year review (e.g. 08-09 CAPR 42). Read this document and identify the main issues raised by CAPR with respect to the five year plan and the goals set for this project in the intervening five years to the next program review. Report back on the program and the degree to which the Annual Report a) addresses the five year planning horizon as appropriate, and b) addresses the specific elements as parsed out below (questions 1-4).

YEAR: 2015-2016

PROGRAM: Engineering - Computer Engineering BS, Industrial Engineering BS, Engineering Management (accredited) MS

LAST FIVE-YEAR REVIEW: 2015-2016

NEXT FIVE-YEAR REVIEW: 2020-2021

CAPR REVIEW AND RECOMMENDATION DOCUMENT:
(i.e. 13-14 CAPR 22 on Five-year Reviews and Annual Reports by Department webpage)

1. Does the Annual Report have a self-study (one page)?
   Yes X No 

1a. Does the Annual Report record progress with departmental planning and review? – does it describe progress toward the program’s defined goals, any problems reaching its goals, any revisions to goals, and any new initiatives taken with respect to goals?
   Yes X No 

   The Annual Report clearly explains progress made and activities associated with goal and accreditation. The Engineering Department offers two undergraduate engineering degree programs, Computer Engineering and Industrial Engineering and a graduate degree program in Engineering Management. The Industrial Engineering degree program is accredited by the Accreditation Board for Engineering and Technology (ABET). Computer Engineering is the newest engineering major started in 2007. The department expected to receive the final accreditation report by August 2016.

1b. Does the Annual Report provide information on the program’s assessment processes? – does it provide information indicating the results of the program’s assessment efforts and/or efforts to further develop its assessment efforts?
   Yes X No 

1c. Does the Annual Report detail progress on fulfilling programmatic needs? – does it record significant events which have occurred or are imminent, such as changes to resources, retirements, new hires, curricular changes, honors received, etc?
   Yes X No
The department had hired a new faculty in Construction Management that will join the School in September 2016. The total number of faculty in Engineering is now 11. Curriculum has been modified to respond to assessment data collected and analyzed.

2. Does the Annual Report have a summary of assessment results and ensuing or necessary revisions (one page)?
Yes [x] No [ ]

Please identify whether the following information is identifiable:

- Which student learning outcome was assessed:
  Yes [x] No [ ]

- What assessment instrument(s) were used to measure this SLO:
  Yes [x] No [ ]

- What participants were sampled to assess this SLO:
  Yes [x] No [ ]

- What assessment results were obtained, highlighting important findings from the data collected:
  Yes [x] No [ ]

- How the assessment results were (or will be) used as well as any revisions to the assessment process the results suggests are needed:
  Yes [x] No [ ]

2a. Does the Annual Report contain a reflection upon progress made and changes with respect to the student learning outcomes assessment plan that is reported on in the five-year review self-study?
Yes [x] No [ ]

As a result of Accreditation Board for Engineering and Technology (ABET) preliminary findings, the department initiated an evaluation of engineering programs educational objectives, which resulted in some changes to the PLO's. The Engineering programs provide quality engineering education that produces graduates who:
- Successfully apply their learned skills, such as independent, critical and systematic thinking, and innovation throughout their professional pursuits
- Have enthusiasm and aptitude to continuously pursue learning and professional development to integrate global, economic, environmental, and societal concerns in their engineering solutions
- Have the ability to communicate and work well independently and collaboratively in cross functional and diverse teams.
- Are recognized as qualified engineers with high technical and ethical integrity, by exhibiting leadership or expertise in a specialized area.

The department proposed the addition of an undergraduate civil engineering program in 2015. Academic Affairs has requested that the department modify the proposal to reflect the transfer to semester curriculum. The department wishes to start offering the degree program in Fall 2018. The proposal for inclusion of civil engineering to the Academic Master Plan has been submitted to the Chancellor's Office.

The department added a Capstone course, ENGR 6800 Applied Research in Engineering Management to the curriculum. This was done to reduce the backlog of Engineering
Management students who were in need of individual faculty advisor for their MS projects. This change will improve ontime graduation rate.

2b. Does the Annual Report describe any changes made to the assessment plan in the preceding 12 months, summarize activities carried out to implement the assessment plan by the program in the preceding 12 months, and summarize the results of any SLO assessed in the preceding 12 months?

Yes ☑️ No ☐

- The report described in details of the update of the assessment plan and results. Each SLO is mapped to and assessed using different performance indicators (PIs), where each PI maps to a student-submitted item in a course (i.e. project, exam problem, assignment, lab report, etc.). For each PI, assessment is performed using a rubric on the scale of 1-4. The rubrics and PIs reported here have been used to satisfy the assessment and continuous improvements needs for external accreditation by the Accreditation Board for Engineering and Technology (ABET) organization. A score of 3 or higher on the rubric is considered as meeting the requirements of the Performance Indicator.

The MS SLO, “Understand the impact of engineering and management decisions in a global, economic, environmental, and societal context” was assessed by specific designed Midterm questions: (a) Describe 5 specific product and/or process design CHOICES that would promote a sustainable or 'green' design for your designated object, one choice related to each life cycle phase. b) For each design choice, describe how that choice is more sustainable than an alternative choice that could have been made (i.e., for each phase compare your design choice to an alternative that is not as sustainable, and describe how your design is more sustainable in comparison). Quantitative and qualitative data were assessed.

3. Does the Annual Report have numeric data summaries of the program obtained from Institutional Research, Analysis and Decision Support (one page)?

Yes ☑️ No ☐

Does the Annual Report numeric data summary include:

3a. Student demographics of majors?

Yes ☑️ No ☐

3b. Student level of majors?

Yes ☑️ No ☐

3.c Faculty and academic allocation?

Yes ☑️ No ☐

3.d Course data?

Yes ☑️ No ☐

3.e One or two pages of supplemental information, as appendices, in the form of graphical presentation (e.g., line graphs), tables, and pertinent discussion which summarize the data of the last several (3-5) years to make changes and trends more apparent (note, this is suggested i.e. optional)?

Yes ☑️ No ☐

(see 4. below for details if Yes).

4. In addition to the required elements of the Annual Report (1-3 above), does the Annual Report include any elements that were not requested?

Yes ☑️ No ☐
The report includes ABET accreditation process and requirements.