

Program Assessment Report 2017-2018

Program Name: Computer Engineering

Program Learning Outcome: A).An Ability to apply knowledge of mathematics, science and engineering.

1. Identify the artifact(s) (i.e. student work or outputs) that you used to assess the PLO. [Projects, papers, presentations, portfolios, exam questions, specific assignments, capstone work]

Artifacts: Choose an item.

Other artifact(s)

[Click or tap here to enter text.](#)

2. Identify the instruments (e.g. rubrics, surveys, spreadsheets, statistical software) used to assess the artifact(s) (i.e. the way in which student output are analyzed).

Instruments: Choose an item.

Other instruments Used

[Click or tap here to enter text.](#)

3. Describe program collaboration to plan, implement and use the results of assessment.

[Click or tap here to enter text.](#)

Explain the results of the assessment activities.

[Click or tap here to enter text.](#)

4. Where applicable, outline the steps you will take to make improvements to the program based on the results of assessment activities identified in #3.

[Click or tap here to enter text.](#)

Program Assessment Report 2017-2018

Program Name: Computer Engineering

Program Learning Outcome: B).An ability to design and conduct experiments, as well as to analyze and interpret data.

1. Identify the artifact(s) (i.e. student work or outputs) that you used to assess the PLO. [Projects, papers, presentations, portfolios, exam questions, specific assignments, capstone work]

Artifacts: Projects

Other artifact(s)

Exams, presentations, homework

2. Identify the instruments (e.g. rubrics, surveys, spreadsheets, statistical software) used to assess the artifact(s) (i.e. the way in which student output are analyzed).

Instruments: Rubrics

Other instruments Used

- Return and collect homework promptly
- Return graded tests promptly
- Increase class demos
- mini-lectures followed by worked examples
- student-weaknesses: diagnose-advise-help weak students

3. Describe program collaboration to plan, implement and use the results of assessment.

[Click or tap here to enter text.](#)

Explain the results of the assessment activities.

Phys 140L, fall 2017: SO(b) target was met, indirect assessment shows that 94.47% of respondents of the course exit survey Agree or Strongly agree that they gained the ability to design and then conduct experiment, in addition 94.97% of respondents of the course exit survey Agree or Strongly agree that they gained the ability to analyze and interpret data.

Phys 140L, spring 2018: SO(b) target was met, direct assessment shows 100%, 90%, and 90% of the students scored Excellent or Good in the three rubric criteria linked to SO(b). This averages to 93% of CE and EE students.

Phys 270, fall 2018: sample work

Phys 448L, spring 2018: sample work

CE 449/Fall-2017

CE 83% Satisfactory: notebook and experiment write-up

CE 454/Fall 2017

Excellent and complete 50%; Complete 0%; Substantial but not incomplete 33%; some evidence 17%

4. Where applicable, outline the steps you will take to make improvements to the program based on the results of assessment activities identified in #3.

Incorporate more time in building classes around demos

Return homework promptly

Program Assessment Report 2017-2018

Program Name: Computer Engineering

Program Learning Outcome: C).An ability to design a system, component, or process to meet desired needs.

1. Identify the artifact(s) (i.e. student work or outputs) that you used to assess the PLO. [Projects, papers, presentations, portfolios, exam questions, specific assignments, capstone work]

Artifacts: Choose an item.

Other artifact(s)

Click or tap here to enter text.

2. Identify the instruments (e.g. rubrics, surveys, spreadsheets, statistical software) used to assess the artifact(s) (i.e. the way in which student output are analyzed).

Instruments: Choose an item.

Other instruments Used

Click or tap here to enter text.

3. Describe program collaboration to plan, implement and use the results of assessment.

Click or tap here to enter text.

Explain the results of the assessment activities.

Click or tap here to enter text.

4. Where applicable, outline the steps you will take to make improvements to the program based on the results of assessment activities identified in #3.

Click or tap here to enter text.

Program Assessment Report 2017-2018

Program Name: Computer Engineering

Program Learning Outcome: D).An ability to function on multidisciplinary teams.

1. Identify the artifact(s) (i.e. student work or outputs) that you used to assess the PLO. [Projects, papers, presentations, portfolios, exam questions, specific assignments, capstone work]

Artifacts: Projects

Other artifact(s)

Lab reports

2. Identify the instruments (e.g. rubrics, surveys, spreadsheets, statistical software) used to assess the artifact(s) (i.e. the way in which student output are analyzed).

Instruments: Rubrics

Other instruments Used

Lab reports, lab course and survey, team work assessment

3. Describe program collaboration to plan, implement and use the results of assessment.

Mobilize the students to effectively collaborate and share in team work

Explain the results of the assessment activities.

EE 241L Target of 80% excellent and good standing was met with direct assessment;

EE 449 NA

EE 454 (Spring 2018)

Mention of contact with an individual from a specific discipline: 67%

List an individual from an unspecified discipline (2-33%)

4. Where applicable, outline the steps you will take to make improvements to the program based on the results of assessment activities identified in #3.

EE 241L: Train students more in lab report format; emphasize both team and individual work in a lab environment

Program Assessment Report 2017-2018

Program Name: Computer Engineering

Program Learning Outcome: E).An ability to identify, formulate and solve engineering problems.

1. Identify the artifact(s) (i.e. student work or outputs) that you used to assess the PLO. [Projects, papers, presentations, portfolios, exam questions, specific assignments, capstone work]

Artifacts: Choose an item.

Other artifact(s)

[Click or tap here to enter text.](#)

2. Identify the instruments (e.g. rubrics, surveys, spreadsheets, statistical software) used to assess the artifact(s) (i.e. the way in which student output are analyzed).

Instruments: Choose an item.

Other instruments Used

[Click or tap here to enter text.](#)

3. Describe program collaboration to plan, implement and use the results of assessment.

[Click or tap here to enter text.](#)

Explain the results of the assessment activities.

[Click or tap here to enter text.](#)

4. Where applicable, outline the steps you will take to make improvements to the program based on the results of assessment activities identified in #3.

[Click or tap here to enter text.](#)

Program Assessment Report 2017-2018

Program Name: Computer Engineering

Program Learning Outcome: F).An understanding of professional and ethical responsibility.

1. Identify the artifact(s) (i.e. student work or outputs) that you used to assess the PLO. [Projects, papers, presentations, portfolios, exam questions, specific assignments, capstone work]

Artifacts: Projects

Other artifact(s)

Presentations

2. Identify the instruments (e.g. rubrics, surveys, spreadsheets, statistical software) used to assess the artifact(s) (i.e. the way in which student output are analyzed).

Instruments: Rubrics

Other instruments Used

Surveys

3. Describe program collaboration to plan, implement and use the results of assessment.

Students have a good background and understanding of ethical issues in engineering

Explain the results of the assessment activities.

ENGR 150: SO(f) Although the SO(f) target was met, direct assessment shows some weakness in using proper evidence, reasoning, and logic to make an argument utilizing the IEEE code of ethics. This is a first year course, so even though the benchmark was met at 83.3% (for the evidence, reasoning, and conclusion portion of the ethics rubric), these first year students have an excellent background for future ethics assignments in future courses. 100% of the students were able to correctly identify relevant sections of the IEEE code of ethics for their case study presentation

EE 344L: Ethics Presentation Rubric with student scores

SO(f) target was met, direct assessment shows 100%, 95%, and 95% of the students scored Excellent or Good in the three rubric criteria linked to SO(f). This averages to 96% of CE and EE students. Facts (1) students wrote quality final papers in IEEE standard journal form (2) students enjoyed writing in IEEE-style papers (3) the concept of feedback in electronics with two labs and two extended papers was taught in class and implemented in the lab with a 68% success (8 out of 12 students).

EE 241L: Group report & presentation on Engineering Disasters, Professional & Ethical Responsibilities; Quiz on Eng. Disasters, Prof & Ethical Responsibilities presentations; Quizzes on Professional & Ethical Responsibilities; Formal Lab Report; Group Lab Final Design Project report and informal presentation; Quizzes on Professional & Ethical Responsibilities (10) (D2L)

CE 449 Professional and Ethical Responsibility: 50% satisfactory

CE 454 Professional and Ethical Practice

Excellent and Complete 50%, Complete 0%, Substantial but incomplete 25%, some evidence 0%, no evidence 25%

4. Where applicable, outline the steps you will take to make improvements to the program based on the results of assessment activities identified in #3.

Emphasize and grade ethical and professional responsibility issues

Program Assessment Report 2017-2018

Program Name: Computer Engineering

Program Learning Outcome: G).An ability to communicate effectively.

1. Identify the artifact(s) (i.e. student work or outputs) that you used to assess the PLO. [Projects, papers, presentations, portfolios, exam questions, specific assignments, capstone work]

Artifacts: Projects

Other artifact(s)

Tests, class quizzes, work on the board

2. Identify the instruments (e.g. rubrics, surveys, spreadsheets, statistical software) used to assess the artifact(s) (i.e. the way in which student output are analyzed).

Instruments: Rubrics

Other instruments Used

Test questions, IEEE code of ethics for study presentations

3. Describe program collaboration to plan, implement and use the results of assessment.

Provide opportunities for effective communication through presentations

Explain the results of the assessment activities.

Student Outcome was met through direct assessment; students were introduced to IEEE paper writing format

4. Where applicable, outline the steps you will take to make improvements to the program based on the results of assessment activities identified in #3.

ENGR 150: Sample lectures of presentations expected, will be given;

EE 241L; direct assessment met target; IEEE standards for report writing

EE 253L: NA

EE 254L: NA

PHYS 270: Oral presentation & written reports

EE 344L: Instructions on IEEE transactions publication format; the students were excited to write in the IEEE paper format

CE 346 NA

CE 449 Satisfactory 100%

CE 454 Satisfactory 100%

Program Assessment Report 2017-2018

Program Name: Computer Engineering

Program Learning Outcome: H).The broad education necessary to understand the impact of engineering solutions in a global and societal context.

1. Identify the artifact(s) (i.e. student work or outputs) that you used to assess the PLO. [Projects, papers, presentations, portfolios, exam questions, specific assignments, capstone work]

Artifacts: Choose an item.

Other artifact(s)

Click or tap here to enter text.

2. Identify the instruments (e.g. rubrics, surveys, spreadsheets, statistical software) used to assess the artifact(s) (i.e. the way in which student output are analyzed).

Instruments: Choose an item.

Other instruments Used

Click or tap here to enter text.

3. Describe program collaboration to plan, implement and use the results of assessment.

Click or tap here to enter text.

Explain the results of the assessment activities.

Click or tap here to enter text.

4. Where applicable, outline the steps you will take to make improvements to the program based on the results of assessment activities identified in #3.

Click or tap here to enter text.

Program Assessment Report 2017-2018

Program Name: Computer Engineering

Program Learning Outcome: I).A recognition of the need for, and an ability to engage in life-long learning.

1. Identify the artifact(s) (i.e. student work or outputs) that you used to assess the PLO. [Projects, papers, presentations, portfolios, exam questions, specific assignments, capstone work]

Artifacts: Choose an item.

Other artifact(s)

Click or tap here to enter text.

2. Identify the instruments (e.g. rubrics, surveys, spreadsheets, statistical software) used to assess the artifact(s) (i.e. the way in which student output are analyzed).

Instruments: Choose an item.

Other instruments Used

Click or tap here to enter text.

3. Describe program collaboration to plan, implement and use the results of assessment.

Click or tap here to enter text.

Explain the results of the assessment activities.

Click or tap here to enter text.

4. Where applicable, outline the steps you will take to make improvements to the program based on the results of assessment activities identified in #3.

Click or tap here to enter text.

Program Assessment Report 2017-2018

Program Name: Computer Engineering

Program Learning Outcome: J).A knowledge of contemporary issues.

1. Identify the artifact(s) (i.e. student work or outputs) that you used to assess the PLO. [Projects, papers, presentations, portfolios, exam questions, specific assignments, capstone work]

Artifacts: Choose an item.

Other artifact(s)

[Click or tap here to enter text.](#)

2. Identify the instruments (e.g. rubrics, surveys, spreadsheets, statistical software) used to assess the artifact(s) (i.e. the way in which student output are analyzed).

Instruments: Choose an item.

Other instruments Used

[Click or tap here to enter text.](#)

3. Describe program collaboration to plan, implement and use the results of assessment.

[Click or tap here to enter text.](#)

Explain the results of the assessment activities.

[Click or tap here to enter text.](#)

4. Where applicable, outline the steps you will take to make improvements to the program based on the results of assessment activities identified in #3.

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Program Assessment Report 2017-2018

Program Name: Computer Engineering

Program Learning Outcome: K).An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

1. Identify the artifact(s) (i.e. student work or outputs) that you used to assess the PLO. [Projects, papers, presentations, portfolios, exam questions, specific assignments, capstone work]

Artifacts: Choose an item.

Other artifact(s)

Click or tap here to enter text.

2. Identify the instruments (e.g. rubrics, surveys, spreadsheets, statistical software) used to assess the artifact(s) (i.e. the way in which student output are analyzed).

Instruments: Choose an item.

Other instruments Used

Click or tap here to enter text.

3. Describe program collaboration to plan, implement and use the results of assessment.

Click or tap here to enter text.

Explain the results of the assessment activities.

Click or tap here to enter text.

4. Where applicable, outline the steps you will take to make improvements to the program based on the results of assessment activities identified in #3.

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