

SUMMARY OF ASSESSMENT METHODS OF PROGRAM OUTCOMES

OUTCOME	ACTION/ STRATEGY	ASSESS. METHODS	WHEN	HOW / CRITERION	WHO
1. comprehend concepts of mathematics and basic sciences	<ul style="list-style-type: none"> • Associated courses (as shown in Form D) • Exit survey 	<ul style="list-style-type: none"> • Letter grade • Survey 	<ul style="list-style-type: none"> • Every year at freshman level • Every year at graduation 	<ul style="list-style-type: none"> • Percentage of students above DC • Online / Average scores 	<ul style="list-style-type: none"> • Instructor • Dept. Head
2. be able to apply concepts of engineering	<ul style="list-style-type: none"> • Associated courses (as shown in Form D) • Special Course Reports on IE 491, IE 492 and IE 499 • Exit survey 	<ul style="list-style-type: none"> • Exam/Assignment grades • Report • Survey 	<ul style="list-style-type: none"> • Every year • Every year at senior level • Every year at graduation 	<ul style="list-style-type: none"> • In class / average score in the related part of the assessment rubric • Coordinators' overall assessment on project outcomes • Online / Average scores 	<ul style="list-style-type: none"> • Instructor • Course coordinator • Dept. Head
3. be able to design and conduct experiments	<ul style="list-style-type: none"> • Associated courses (as shown in Form D) • Exit survey 	<ul style="list-style-type: none"> • Exam/Assignment grades • Survey 	<ul style="list-style-type: none"> • Every year • Every year at graduation 	<ul style="list-style-type: none"> • In class / average score in the related part of the assessment rubric • Online / Average scores 	<ul style="list-style-type: none"> • Instructor • Dept. Head
4. be able to analyze and interpret data	<ul style="list-style-type: none"> • Associated courses (as shown in Form D) • Exit survey 	<ul style="list-style-type: none"> • Exam/Assignment grades • Survey 	<ul style="list-style-type: none"> • Every year • Every year at graduation 	<ul style="list-style-type: none"> • In class / average score in the related part of the assessment rubric • Online / Average scores 	<ul style="list-style-type: none"> • Instructor • Dept. Head

<p>5. be able to design and/or improve a system, component, or process effectively by applying notions of optimality to meet desired needs</p>	<ul style="list-style-type: none"> • Associated courses (as shown in Form D) • Capstone project industrial advisors survey • Exit survey 	<ul style="list-style-type: none"> • Exam/Assignment grades • Survey • Survey 	<ul style="list-style-type: none"> • Every year • Every year at senior level • Every year at graduation 	<ul style="list-style-type: none"> • In class / average score in the related part of the assessment rubric • Online / Feedback • Online / Average scores 	<ul style="list-style-type: none"> • Instructor • IE491, IE492 coordinators • Dept. Head
<p>6. function in interdisciplinary teams through good working habits, time management, and self-discipline</p>	<ul style="list-style-type: none"> • Special Reports on IE491, IE492, and IE499 • Workshop • Peer Evaluation • Summer training company advisors survey • Exit Survey 	<ul style="list-style-type: none"> • Observation • Participation • Survey • Survey • Survey 	<ul style="list-style-type: none"> • Every year at senior level • Every year at sophomore level • Every year at senior level • Every year at senior level • Every year at graduation 	<ul style="list-style-type: none"> • Coordinators' assessment of ability to function in teams and exhibit required skills • Successful completion • Perception level • Online / Feedback • Online / Average scores 	<ul style="list-style-type: none"> • IE491, IE492, IE499 coordinators • Dept. Head • IE491, IE492 coordinators • IE 499 coordinators • Dept. Head
<p>7. Be able to identify, formulate, and solve engineering problems and design alternatives</p>	<ul style="list-style-type: none"> • Associated courses (as shown in Form D) • Capstone project industrial advisors survey • Exit Survey 	<ul style="list-style-type: none"> • Exam/Assignment grades • Survey • Survey 	<ul style="list-style-type: none"> • Every year • Every year • Every year at graduation 	<ul style="list-style-type: none"> • In class / average score in the related part of the assessment rubric • Online / Feedback • Online / Average scores 	<ul style="list-style-type: none"> • Instructor • IE491, IE492 coordinators • Dept. Head

8. Demonstrate professional and ethical responsibility	<ul style="list-style-type: none"> • Seminars • Workshops • Summer training company advisors survey • Capstone project industrial advisors survey • Exit Survey 	<ul style="list-style-type: none"> • Attendance • Participation • Survey • Survey • Survey 	<ul style="list-style-type: none"> • Every year at senior level • Every year at sophomore level • Every year at junior and senior level • Every year • Every year at graduation 	<ul style="list-style-type: none"> • Exposure • Successful completion • Online / Feedback • Online / Feedback • Online / Average scores 	<ul style="list-style-type: none"> • IE491, 492 coordinators • Dept. Head • IE399, 499 coordinators • IE491, IE492 coordinators • Dept. Head
9. Use an advanced level of English in interpersonal communication and self-development	<ul style="list-style-type: none"> • External Exam • Associated courses (as shown in Form D) • Focus group 	<ul style="list-style-type: none"> • EPE or Equivalent score • Letter Grade • Discussion 	<ul style="list-style-type: none"> • Every year before starting freshman • Every year • Every year at graduation 	<ul style="list-style-type: none"> • Percentage of students above 70% • Percentage of students above DC • In class / Constructed scale 	<ul style="list-style-type: none"> • English Language School • Instructor • Dept. Head
10. Demonstrate effective communication skills	<ul style="list-style-type: none"> • Associated courses (as shown in Form D) • Capstone project industrial advisors survey • Exit Survey 	<ul style="list-style-type: none"> • Effectiveness of oral presentation and reports • Survey • Survey 	<ul style="list-style-type: none"> • Every year • Every year • Every year at graduation 	<ul style="list-style-type: none"> • In class / average score in the related part of the assessment rubric • Online / Feedback • Online / Average scores 	<ul style="list-style-type: none"> • Instructor • IE491, IE492 coordinators • Dept. Head
11. Be able to express a creative thought on and critical assessment of events and ideas to shape their professional practice in a global/societal context	<ul style="list-style-type: none"> • Associated courses (as shown in Form D) • Exit Survey 	<ul style="list-style-type: none"> • Exam/Assignment grades • Survey 	<ul style="list-style-type: none"> • Every year • Every year at graduation 	<ul style="list-style-type: none"> • In class / average score in the related part of the assessment rubric • Online / Average scores 	<ul style="list-style-type: none"> • Instructor • Dept. Head

<p>12. Recognize the need for, and have an ability to engage in life-long learning</p>	<ul style="list-style-type: none"> • Associated courses (as shown in Form D) • Capstone project industrial advisors survey • Exit Survey 	<ul style="list-style-type: none"> • Exam/Assignment grades • Survey • Survey 	<ul style="list-style-type: none"> • Every year • Every year • Every year at graduation 	<ul style="list-style-type: none"> • In class / average score in the related part of the assessment rubric • Online / Feedback • Online / Average scores 	<ul style="list-style-type: none"> • Instructor • IE491, IE492 coordinators • Dept. Head
<p>13. Be able to comprehend contemporary issues</p>	<ul style="list-style-type: none"> • Associated courses (as shown in Form D) • Workshop • Exit Survey 	<ul style="list-style-type: none"> • Exam/Assignment grades • Participation • Survey 	<ul style="list-style-type: none"> • Every year • Every year at senior level • Every year at graduation 	<ul style="list-style-type: none"> • In class / average score in the related part of the assessment rubric • Successful completion • Online / Average scores 	<ul style="list-style-type: none"> • Instructor • Dept. Head • Dept. Head
<p>14. Use the techniques, skills, and modern engineering tools necessary for engineering practice</p>	<ul style="list-style-type: none"> • Associated courses (as shown in Form D) • Capstone project industrial advisors survey • Exit Survey 	<ul style="list-style-type: none"> • Exam/Assignment grades • Survey • Survey 	<ul style="list-style-type: none"> • Every year • Every year • Every year at graduation 	<ul style="list-style-type: none"> • In class / average score in the related part of the assessment rubric • Online / Feedback • Online / Average scores 	<ul style="list-style-type: none"> • Instructor • IE491, IE492 coordinators • Dept. Head
<p>15. Recognize and appreciate different cultures and respect individual and cultural differences</p>	<ul style="list-style-type: none"> • Involvement in student clubs, other social groups, and charities • Summer training company advisors survey • Capstone project industrial advisors survey • Exit Survey 	<ul style="list-style-type: none"> • Observation • Survey • Survey • Survey 	<ul style="list-style-type: none"> • Every year at graduation • Every year at junior and senior level • Every year • Every year at graduation 	<ul style="list-style-type: none"> • Involvement level • Online / Feedback • Online / Feedback • Online / Average scores 	<ul style="list-style-type: none"> • Dept. Head • IE 399 and IE 499 coordinators • IE491, IE492 coordinators • Dept. Head

Each outcome should contain **Data Summary & Evaluation** and **Program Improvements** descriptions, as well.