

Assessment Results

An example of the assessment results include the following:

Table 1. Student learning outcome results

Student Learning Outcome	Sample and Sample Size	Measure	Percent of Students Achieving
<i>a. An ability to apply knowledge of mathematics, science, and engineering</i>	31/43	MECH 340. Three exams with Total points $\geq 60\%$	72
<i>b1. An ability to design experiments to evaluate the performance of a mechanical/thermal system or component with respect to specifications</i>	36/37	MECH 440B. Individual written test plan with Pass/fail assessment	97
<i>b2. An ability to conduct experiments, as well as analyze and interpret data</i>	62/76	MECA 380. Lab assignments with Overall lab grade C or better	82
<i>c1. An ability to design a mechanical system, component, or process to meet desired needs</i>	42/43	MECH 340. Individual design project with $\geq 60\%$ of max. possible points	98
<i>c2. An ability to design a thermal system, component, or process to meet desired needs</i>	64/69	MECH 338. Two design projects with at least 70% on one of the two	93
<i>d. An ability to function effectively as members of multidisciplinary teams</i> <i>An ability to function effectively as members of multidisciplinary teams</i>	27/27	CIVL 495. Presentation, memorandums with 70% or better	100
	37/37	MECH 440A. Individual in group project with Faculty advisor & peer evaluation	100
<i>e1. An ability to define engineering problems</i>	37/37	MECH 440A. Project definition assignment with Pass/fail grading	100
<i>e2. An ability to solve engineering problems</i>	40/51	MECA 482. Tests (x3) or Projects (x5) with Average of C- or better	78
<i>f. An understanding of professional ethical responsibility</i>	27/27	CIVL 495. Presentation, memorandums with Score of 7 or better out of 10	100
<i>g1. An ability to communicate technical matters effectively in oral form</i>	22/22	MECH 440A Individual design project with Pass/fail assessment	100
<i>g2. An ability to communicate technical matters effectively in written form</i>	36/37	MECH 340 Individual design project with $\geq 60\%$ of max. possible points	97
<i>g3. An ability to communicate technical matters effectively in graphical form</i>	36/37	MECH 340 Individual design project with $\geq 60\%$ of max. possible points	97
<i>h. The broad education necessary to understand the impact of engineering solutions in a global and societal context</i>	27/27	CIVL 495 Reports, instructor observation with Score of 7 or better out of 10	100
<i>i A recognition of the need for, and an ability to engage in, life-long learning</i>	27/27	CIVL 495 Reports, instructor observation with Score of 7 or better out of 10	100
<i>j. A knowledge of contemporary issues</i>	27/27	CIVL 495 Reports, instructor observation with Score of 7 or better out of 10	100
<i>k. An ability to use the techniques, skills, and modern mechanical</i>	52/60	MECH 306 Test questions with At least 4 of 5 scores $\geq 60\%$, 60%, 100%, 100%, 60%, respectively	87

<p><i>engineering tools necessary for engineering practice</i></p> <p><i>An ability to use the techniques, skills, and modern mechanical engineering tools necessary for engineering practice</i></p>	40/41	MECH 308 Final project with Pass/fail assessment	98
<p><i>An ability to use the techniques, skills, and modern mechanical engineering tools necessary for engineering practice</i></p>	55/57	MECA 380 Programming assignments (x3) with Scores \geq 17/22, 17/23, and 17/20	97