

# SLO Performance - By Department, Course, CSLO

Program: Industrial Drawing

Date: 06/18/2018

Terms: Summer 2018, Spring 2018, Fall 2017

## INDRB12: Introduction to Drafting and CAD

**3. Upon successful completion of the course the student will use manual drafting equipment to produce precision mechanical drawings to industry standards.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Upon completion the student will be able to: Solve orthographic projection problems and visualization exercises with minimal errors.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Upon completion the student will be able to: Solve technical drawing problems requiring the use of sectioning techniques and auxiliary views projection with minimal errors.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	5	25.00%	7	35.00%	8	40.00%	0	0.00%	20	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	5	25.00%	7	35.00%	8	40.00%	0	0.00%	20	100.00%

**Upon completion the student will be able to: Assess how and where to place annotations (dimensions, tolerances, notes) on technical drawings to industry standards with minimal errors.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	5	25.00%	12	60.00%	3	15.00%	0	0.00%	20	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	5	25.00%	12	60.00%	3	15.00%	0	0.00%	20	100.00%

**Upon completion the student will be able to: Use basic CAD software and hardware to entry-level standards.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	9	45.00%	5	25.00%	6	30.00%	20	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	9	45.00%	5	25.00%	6	30.00%	20	100.00%

**Upon completion the student will be able to: Design and solve graphic problems using the following CAD command groups: A. Draw modes B. Set-up C. Display D. Editing E. Plotting**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Upon completion the student will be able to: Solve entry-level drafting problems using CAD with minimal errors.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	10	16.67%	28	46.67%	16	26.67%	6	10.00%	60	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>10</b>	<b>16.67%</b>	<b>28</b>	<b>46.67%</b>	<b>16</b>	<b>26.67%</b>	<b>6</b>	<b>10.00%</b>	<b>60</b>	<b>100.00%</b>

**INDRB12: Introduction to Drafting and CAD**

**1. Upon successful completion of the course the student will use CAD software to create entry-level technical drawing.**

CSLO not included in any Assessment Rubric

**3. Upon successful completion of the course the student will use manual drafting equipment to produce precision mechanical drawings to industry standards.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**2. Upon successful completion of the course the student will solve visualization exercises and projection problems.**

CSLO not included in any Assessment Rubric

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**INDRB20A: Computer Aided Drafting and Design (CAD)****Upon completion of the course the student will be able to demonstrate skills needed to navigate the AutoCAD interface.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	3	15.00%	2	10.00%	13	65.00%	2	10.00%	20	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>3</b>	<b>15.00%</b>	<b>2</b>	<b>10.00%</b>	<b>13</b>	<b>65.00%</b>	<b>2</b>	<b>10.00%</b>	<b>20</b>	<b>100.00%</b>

**Apply correct drawing settings in a variety of situations including architectural, engineering, and mechanical drawings.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Create, modify, and apply dimensions and dimension styles appropriate for architectural, engineering, and mechanical drawings.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	2	10.00%	4	20.00%	10	50.00%	4	20.00%	20	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	2	10.00%	4	20.00%	10	50.00%	4	20.00%	20	100.00%

**Employ the Design Center to reuse information and increase productivity.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	5	25.00%	9	45.00%	6	30.00%	0	0.00%	20	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	5	25.00%	9	45.00%	6	30.00%	0	0.00%	20	100.00%

**Demonstrate understanding of the differences between model space and layout space by composing drawings that display objects in various scales.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Employ solid modeling techniques to create three-dimensional objects and translate them into two-dimensional drawings according to industry standards.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Create animations and renderings that will aid in conveying spatial relationships and mechanical concepts.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Cooperate with peers to design and produce drawings and physical models of complex objects with multiple parts.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Understand and assume responsibility for project deadlines as they affect mechanical design and practice.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	10	16.67%	15	25.00%	29	48.33%	6	10.00%	60	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>10</b>	<b>16.67%</b>	<b>15</b>	<b>25.00%</b>	<b>29</b>	<b>48.33%</b>	<b>6</b>	<b>10.00%</b>	<b>60</b>	<b>100.00%</b>

**INDRB20B: Computer Aided Drafting and Design (CAD)**

**Upon completion the student will be able to: Extract data from previously created drawings.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	2	8.70%	9	39.13%	10	43.48%	2	8.70%	23	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>2</b>	<b>8.70%</b>	<b>9</b>	<b>39.13%</b>	<b>10</b>	<b>43.48%</b>	<b>2</b>	<b>8.70%</b>	<b>23</b>	<b>100.00%</b>

**Upon completion the student will be able to: Design and place dynamic blocks in a drawing.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	12	52.17%	9	39.13%	2	8.70%	23	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	12	52.17%	9	39.13%	2	8.70%	23	100.00%

**Upon completion the student will be able to: Modify and customize the software interface for ease of use.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	17	73.91%	6	26.09%	0	0.00%	23	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	17	73.91%	6	26.09%	0	0.00%	23	100.00%

**Upon completion the student will be able to: Create and use the menu customization options and be able to create software icons.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	1	4.35%	10	43.48%	11	47.83%	1	4.35%	23	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	1	4.35%	10	43.48%	11	47.83%	1	4.35%	23	100.00%



**Upon completion the student will be able to: Use Autolisp to create custom software commands.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	13	56.52%	4	17.39%	6	26.09%	23	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	13	56.52%	4	17.39%	6	26.09%	23	100.00%

**Upon completion the student will be able to: Complete a working drawing using the methods and procedures learned in the class with few if any mistakes.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	2	8.70%	11	47.83%	10	43.48%	0	0.00%	23	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	2	8.70%	11	47.83%	10	43.48%	0	0.00%	23	100.00%

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	5	3.62%	72	52.17%	50	36.23%	11	7.97%	138	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	5	3.62%	72	52.17%	50	36.23%	11	7.97%	138	100.00%

**INDRB40: Parametric Modeling Fundamentals**

**Upon completion the student will be able to: Use sketch tools to create, constrain, and dimension two-dimensional sketches.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	10	62.50%	6	37.50%	0	0.00%	16	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	10	62.50%	6	37.50%	0	0.00%	16	100.00%

**Upon completion the student will be able to: Convert two-dimensional sketches into three-dimensional parts using extrusion, revolution, and sweep techniques.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	2	12.50%	6	37.50%	8	50.00%	0	0.00%	16	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	2	12.50%	6	37.50%	8	50.00%	0	0.00%	16	100.00%

**Upon completion the student will be able to: Create work planes, work axes, and work points to be used as the base for sketch planes or placed features such as holes, threads, and patterns.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	10	62.50%	3	18.75%	3	18.75%	16	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	10	62.50%	3	18.75%	3	18.75%	16	100.00%

**Upon completion the student will be able to: Translate completed three-dimensional objects into two-dimensional drawings and add dimensions according to industry standards.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	4	25.00%	10	62.50%	2	12.50%	16	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	4	25.00%	10	62.50%	2	12.50%	16	100.00%

**Upon completion the student will be able to: Create animations that will aid in conveying spatial relationships and mechanical concepts.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	7	43.75%	9	56.25%	0	0.00%	16	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	7	43.75%	9	56.25%	0	0.00%	16	100.00%

**Upon completion the student will be able to: Digitally design and assemble a multi-part object using design principles and assembly techniques (digital prototyping).**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	1	6.25%	4	25.00%	9	56.25%	2	12.50%	16	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	1	6.25%	4	25.00%	9	56.25%	2	12.50%	16	100.00%

**Upon completion the student will be able to: Cooperate with peers to design and produce models and drawings of complex objects with multiple parts.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	6	37.50%	9	56.25%	1	6.25%	16	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	6	37.50%	9	56.25%	1	6.25%	16	100.00%

**Upon completion the student will be able to: Understand and assume responsibility for project deadlines as they affect mechanical design and practice.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	6	37.50%	8	50.00%	2	12.50%	16	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	6	37.50%	8	50.00%	2	12.50%	16	100.00%

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	3	2.34%	53	41.41%	62	48.44%	10	7.81%	128	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	3	2.34%	53	41.41%	62	48.44%	10	7.81%	128	100.00%

**INDRB42: Introduction to Solidworks**

**Upon completion the student will be able to: Create two dimensional sketches using dimensional and geometric constraints.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Create three dimensional parametric solid models.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Perform modifications to solid models, changing parametric dimensions to drive part geometry.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	2	12.50%	8	50.00%	5	31.25%	1	6.25%	16	100.00%
Totals	<b>2</b>	<b>12.50%</b>	<b>8</b>	<b>50.00%</b>	<b>5</b>	<b>31.25%</b>	<b>1</b>	<b>6.25%</b>	<b>16</b>	<b>100.00%</b>

**Upon completion the student will be able to: Assemble separate parametric parts together using assembly constraints**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	3	18.75%	8	50.00%	3	18.75%	2	12.50%	16	100.00%
Totals	3	18.75%	8	50.00%	3	18.75%	2	12.50%	16	100.00%

**Upon completion the student will be able to: Evaluate engineering properties of solid models such as mass and interference.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Upon completion the student will be able to: Create two dimensional orthographic views for plotting.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	5	15.62%	16	50.00%	8	25.00%	3	9.38%	32	100.00%
Totals	5	15.62%	16	50.00%	8	25.00%	3	9.38%	32	100.00%

<b>INDRB48WE: Occupational Work Experience Education</b>										
<p><b>Upon completion the student will be able to:Identify progressive work objectives with employer and obtain approval of objectives from instructor/coordinator.</b>                      CSLO not included in any Assessment Rubric</p>										
<p><b>Upon completion the student will be able to:Compose work objectives that demonstrate applications of theory and practice relevant to the student's occupational goal.</b>                      CSLO not included in any Assessment Rubric</p>										
<p><b>Upon completion the student will be able to:Demonstrate skills, knowledge, and attitudes needed to maintain employment</b>                      CSLO not included in any Assessment Rubric</p>										
<p><b>Upon completion the student will be able to:Demonstrate job retention skills including responsibility, dependability, effective use of time, appropriate dress and behavior for the job, and effective working relationships.</b>                      CSLO not included in any Assessment Rubric</p>										
<b>Totals for CSLOs</b>										
	<b>N/A</b>		<b>Exceeds expectations</b>		<b>Meets expectations</b>		<b>Does not meet expectations</b>		<b>Total</b>	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**INDRB48WE: Occupational Work Experience Education/Internship**

**Upon completion the student will be able to: Identify progressive work objectives with employer and obtain approval of objectives from instructor/coordinator.**

CSLO not included in any Assessment Rubric

**Upon completion the student will be able to: Compose work objectives that demonstrate applications of theory and practice relevant to the student's occupational goal.**

CSLO not included in any Assessment Rubric

**Upon completion the student will be able to: Demonstrate skills, knowledge, and attitudes needed to maintain employment**

CSLO not included in any Assessment Rubric

**Upon completion the student will be able to: Demonstrate job retention skills including responsibility, dependability, effective use of time, appropriate dress and behavior for the job, and effective working relationships.**

CSLO not included in any Assessment Rubric

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**INDRB50: Process Piping**



**Upon completion the student will be able to: Recognize and apply the fundamental elements of Process Piping drawings and standards.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	8	47.06%	8	47.06%	1	5.88%	17	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>8</b>	<b>47.06%</b>	<b>8</b>	<b>47.06%</b>	<b>1</b>	<b>5.88%</b>	<b>17</b>	<b>100.00%</b>

**Upon completion the student will be able to: Draw standard pipes and fittings as required by industry.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Distinguish what kinds of valves and instrumentation will be required for various situations and place them in appropriate places in drawings.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	4	23.53%	7	41.18%	6	35.29%	17	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>4</b>	<b>23.53%</b>	<b>7</b>	<b>41.18%</b>	<b>6</b>	<b>35.29%</b>	<b>17</b>	<b>100.00%</b>

**Upon completion the student will be able to: Draw, place, and perform calculations for pumps, tanks, vessels, and equipment.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	10	58.82%	7	41.18%	0	0.00%	17	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>10</b>	<b>58.82%</b>	<b>7</b>	<b>41.18%</b>	<b>0</b>	<b>0.00%</b>	<b>17</b>	<b>100.00%</b>

**Upon completion the student will be able to: Create flow diagrams as required by industry.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Plan and present piping diagrams and elevations to industry standards.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Apply piping abbreviations, notes, and revisions to industry standards.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Create two-dimensional isometric and three-dimensional piping diagrams.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	22	43.14%	22	43.14%	7	13.73%	51	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>22</b>	<b>43.14%</b>	<b>22</b>	<b>43.14%</b>	<b>7</b>	<b>13.73%</b>	<b>51</b>	<b>100.00%</b>

**INDRB50: Process Piping**

**1. Upon successful completion of the course the student will create accurate technical drawings specific to the Process Piping field using CAD software.**

CSLO not included in any Assessment Rubric

**2. Upon successful completion of the course the student will perform critical calculations (e.g.: fitting make-up, mater runs, running offsets, etc.) related to the creation of process piping facility drawings.**

CSLO not included in any Assessment Rubric

**3. Upon successful completion of the course the student will understand the role of specifications and codes, and how the application of such constrains design decisions in the planning of process piping facilities.**

CSLO not included in any Assessment Rubric

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**INDRB51: Electrical Design**

**Upon completion of the course, the student will be able to create and modify CAD drawings of electrical control systems.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	1	4.76%	7	33.33%	13	61.90%	0	0.00%	21	100.00%
Totals	1	4.76%	7	33.33%	13	61.90%	0	0.00%	21	100.00%

**Upon completion the student will be able to:Create and modify CAD drawings of panel layouts.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	3	14.29%	8	38.10%	5	23.81%	5	23.81%	21	100.00%
Totals	3	14.29%	8	38.10%	5	23.81%	5	23.81%	21	100.00%

**Upon completion the student will be able to:Generate schematic and panel reports common to industry.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	5	23.81%	10	47.62%	6	28.57%	0	0.00%	21	100.00%
Totals	5	23.81%	10	47.62%	6	28.57%	0	0.00%	21	100.00%

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	9	14.29%	25	39.68%	24	38.10%	5	7.94%	63	100.00%
Totals	9	14.29%	25	39.68%	24	38.10%	5	7.94%	63	100.00%

**INDRB52: Civil Drafting and Geographic Information Systems**

**Upon completion the student will be able to: Use basic GIS tools to create maps with correct cartographic elements.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Locate, evaluate, and acquire geographical data suitable for GIS analysis.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Create new geographical data.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Demonstrate ability to apply appropriate GIS tools in the interpretation and analysis of geographical data.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	16	80.00%	2	10.00%	2	10.00%	20	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>16</b>	<b>80.00%</b>	<b>2</b>	<b>10.00%</b>	<b>2</b>	<b>10.00%</b>	<b>20</b>	<b>100.00%</b>

**Upon completion the student will be able to: Create a GIS database, perform complex spatial analysis, and present findings using standard cartographic formats.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	16	80.00%	2	10.00%	2	10.00%	20	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>16</b>	<b>80.00%</b>	<b>2</b>	<b>10.00%</b>	<b>2</b>	<b>10.00%</b>	<b>20</b>	<b>100.00%</b>

**INDRB52: Civil Drafting and Geographic Information Systems**

**1. Upon successful completion of the course the student will use CAD software to create accurate technical drawings and maps specific to the civil engineering, surveying, and land development fields.**

CSLO not included in any Assessment Rubric

**2. Upon successful completion of the course the student will acquire geographical data suitable for GIS analysis and use basic GIS tools to create maps with correct cartographic elements.**

CSLO not included in any Assessment Rubric

**3. Upon successful completion of the course the student will be able to perform complex calculations (e.g. slope, excavation volumes, cut & fill, etc.) related to the creation of land development and water system management drawings**

CSLO not included in any Assessment Rubric

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Report Totals:**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	28	6.13%	206	45.08%	181	39.61%	42	9.19%	457	100.00%
Fall 2017	14	14.74%	41	43.16%	32	33.68%	8	8.42%	95	100.00%
Totals	<b>42</b>	<b>7.61%</b>	<b>247</b>	<b>44.75%</b>	<b>213</b>	<b>38.59%</b>	<b>50</b>	<b>9.06%</b>	<b>552</b>	<b>100.00%</b>