



ANNUAL PROGRAM REPORT

\_\_\_\_\_ (suggested length of 1-3 pages)

1. The major change was the transfer to a semester-based program. The Engineering curriculum has been transformed such that it both satisfies the accreditation requirements and provides stronger graduates. This has been accomplished by fundamental changes to courses, teaching methods and course requirements. The first year of the implementation of the new curriculum has gone smoothly. The students that are in transition have been advised properly and are now on their way to graduate on time.

As mentioned in accreditation report showing the 1- (we have to address the observation that the program needs additional faculty before the next 10.

Research\* The Engineering faculty are active in research and are being referred to. The strong connections and as such our students have the opportunity to compete for research based projects by the time of graduation.

+. Laborator% 1 (equipment\* 2 have purchased two 3N3 machines and a robotics work cell that are installed in 56T +7, for manufacturing related courses. These machines will be used in ENGR +1, and some graduate courses.

7. Equipment\* Through A+E+ annual funding and the normal refresh cycle of computers we are keeping the Engineering Laboratories current. The Engineering Computer Lab. / 56T +70 is due for a refresh that will be done during the 3rd Christmas break of +, 18. This is scheduled for several courses.

9. Enrollment\* Student enrollment in Engineering program has stabilized at around 1, , .

-. E. cess credits\* The program requires 1<1 credit hours to complete. The transformed curriculum just meets the minimum accreditation requirements in the areas of basic science and engineering hours. No engineering electives could be added to the program.

- 4. The program is designed to meet the needs of the students and to provide a challenging learning experience for all students.
- 5. The program is designed to be flexible and to allow for changes in the curriculum as needed.
- 6. The program is designed to be cost-effective and to provide a high-quality education for all students.
- 7. The program is designed to be inclusive and to provide a safe and supportive learning environment for all students.
- 8. The program is designed to be data-driven and to use assessment to inform instruction.
- 9. The program is designed to be a model of best practices in education.

The program started in the year 2015, and has been steadily growing with the enrollment stable; in the last three years. Since 2015, we have not had an increase in the program. Our last accreditation review was conducted in the year 2018. The findings indicated the fact that the program needs new faculty members to sustain current enrollment for this program in this academic year.

The transformed curriculum is designed to include more active learning practices and interdisciplinary courses and materials that are in line with the current trends for engineering.

Requirements for engineering graduates are relatively strong. Most of our graduates are employed in engineering positions in the Great Lakes Area.

Since 2015, we have had 7 faculty dedicated to the engineering and M.S. in engineering management programs. These include Dr. Aong' 1 (Dr. Bowen and ) Arna; Ganje; adeh. The program needs one additional tenured faculty.

We have two full-time staff for the school of Engineering: Mrs. Lisa Strom, our student advisor and a laboratory technician Mr. L. Nguyen. We also have a joint staff with Math and Computer departments.

We have a graded our Manufacturing processes equipment and are planning to upgrade the engineering computer laboratory by 2017.

An external assessment process is in place for the engineering program. The results are reported in the following section.

- 
1. An abstract to identify the form of the data and so the engineering problems are being researched of engineering science and mathematics. /!LO 10
  2. An abstract to a engineering design to produce solutions that meet specified needs with consideration of "basic health, safety and welfare" as well as global, cultural, social, environmental and economic factors. /!LO 1 B -0
  3. An abstract to communicate effectively with a range of audiences. /!LO +0
  4. An abstract to recognize ethical and professional responsibilities in engineering situations and informed judgments which must consider the impact of engineering solutions on global, economic, environmental and societal contexts. /!LO 7' 9 B -0
  5. An abstract to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, and meet objectives. /!LO 7 B 90
  6. An abstract to develop and conduct a research project and interpret data and use engineering judgment to draw conclusions. /!LO 1 B +0
  7. An abstract to acquire and use new knowledge as needed, using appropriate learning strategies. /!LO 1' + B 90

6.

2 e ha(e assessed the fo\$\$ow#ng : LO for the !nd"str#a\$ Eng#neer#ng rogram d"r#ng the +, 18-+, Academ#c =ear\*

<p>6. Which PLO(s) to assess</p>	<p>PLO 1* An ab#s#t% to #dent#f%' form"\$ate' and so\$(e com \$e. eng#neer#ng rob\$ems b% a \$%#ng r#nc# \$es of eng#neer#ng' sc#ence' and mathemat#cs. /!LO 10.</p> <p>PLO 9 An ab#s#t% to recogn#;e eth#ca\$ and rofess#ona\$ res onsb#s#t#ies #n eng#neer#ng s#t"at#ons and ma4e #nformed j"dgments' wh#ch m"st cons#der the #m act of eng#neer#ng so"\$#ons #n g#oba\$' econom#c' en(#ronmenta\$' and soc#eta\$ conte . ts. /!LO 7' 9 B -0</p>
<p>2. !ssess "ent indicators</p>	<p>c-</p>
<p>3. #a "ple (courses\$% of students)</p>	<p>c-ENGR ++, ' ENGR +, ,</p>
<p>4. &amp;i "e ( 'hich (arter(s))</p>	<p>c-)a\$\$ +, 1&lt;</p>
<p>5. )esponsi *le person(s)</p>	<p>c- R#c4 3ho%' )ad# 3asrono(o</p>
<p>+. Wa,s of reporting (ho ' - to 'ho)</p>	<p>The res"\$ts w#\$\$ be re orted b% fac"\$t% to the de artment cha#r (#a com \$et#on of the co"rse )ac"\$t% :e\$f-Assessment form.</p>
<p>7. Wa,s of closing the loop</p>	<p>!nteract#on between cha#r' fac"\$t% and #nd"str#a\$ ad(#sor% board</p>

3.

PLO 1 was assessed #n ENGR ++, #n )a\$\$ of +, 1<. !n th#s co"rse' st"dents com \$ete se(era\$ @ 2 ass#gnments "s#ng an on-\$#ne too\$ ca\$\$ed Master#ng Eng#neer#ng. Th#s too\$ ro(#des #nstant feedbac4 to st"dents as the% com \$ete the#r homework. There are a\$\$o se(era\$ &"#; ;es' two e.ams and a f#na\$. At the end of each semester the fac"\$t% com \$etes a co"rse assessment form that s"mmar#;es a\$\$ assessment act#(ates re\$ated to the co"rse \$earn#ng o"tcomes as ma ed to PLOs. The assessment form a\$\$o #nc\$"des #nstr"ctors feedbac4 on the strengths and wea4nesses of the co"rse based on st"dent e(a\$"at#ons and #nstr"ctor)s obser(at#ons. The assessment forms for a\$\$ co"rses are co\$\$ected and the s"mmar% #s resented to the ad(#sor% board where' fac"\$t% and other members of the board ma4e dec#s#ons on how to #m ro(e the rogram.

PLO 9\* :t"dents #n ENGR +, , wor4 on se(era\$ case st"d#es and ass#gnments. :ome of these ass#gnments are re\$ated to eng#neer#ng eth#cs. As an e.am \$e' Ass#gnment E1 re&"#res st"dents to wr#te a m#n#- a er on eng#neer#ng eth#cs and s"sta#nab#s#t%. Th#s a er d#sc"sses re ar#ng the code of cond"ct for a com an%' one sho"\$d ass"re that the (a\$"es of the com an% are reflected. As art of th#s ass#gnment' st"dents re(#ew recent a ers re\$ated to eth#cs and s"sta#nab#s#t% and re are a s"mmar%.



4. & "e ( 'hich (quarter(s))	a-: r#ng +,+,
5. )esponsi *le person(s)	a-Prof. Ganj#e;adeh or \$ect"rer
+.Wa,s of reporting (ho '- to 'ho)	The res"sts w\$\$ be re orted b% fac"\$t% to the de artment cha#r (#a com \$et#on of the co"rse )ac"\$t% :e\$f-Assessment form.
7.Wa,s of closing the loop	!nteract#on between cha#r' fac"\$t% and #nd"str#a\$ ad(#sor

The #nd"str#a\$ eng#neer#ng rogram started #n the )a\$\$ of +, , , and has been stead#% grow#ng w#th the enro\$\$ment stab#%;#ng #n the ast three %ears at aro"nd 1, , st"dents . :#nce +, , 9' we ha(e not h#red an% fac"\$t% for th#s rogram. O"r \$ast re-accred#tat#on re(#ew b% A6ET was cond"cted #n the fa\$\$ &"arter of +, 1-. The#r f#nd#ngs #nc"\$ded a rogram obser(at#on c#ted be\$ow' #nd#cat#ng that the rogram needs new fac"\$t% members to sta% c"rrent. 2 e ha(e not re&"ested ten"re trac4 os#t#ons s#nce the accred#tat#on (#s#t. 2 e ha(e to address th#s obser(at#on we\$\$ before the ne . t accred#tat#on (#s#t #n the fa\$\$ of +, +1.\_

---

The fo\$\$ow#ng tab\$e #s enro\$\$ment data e. tracted from P#oneer 1 ata 2 areho"se. Th#s data #nd#cat#s that the !nd"str#a\$ Eng#neer#ng enro\$\$ment has stab#%;#ed at aro"nd 1, , st"dents. The )a\$\$ +, 1< enro\$\$ment #s at 1, +. The c"rrent fac"\$t% of !nd"str#a\$ Eng#neer#ng areG 1a(#d 6owen' )arna; Ganj#e;adeh and @e\$en Aong. The rogram #s accred#ted b% A6ET "nt# the )a\$\$ of +, ++. 2 e are \$ann#ng to re&"est a fac"\$t% os#t#on for #nd"str#a\$ eng#neer#ng and eng#neer#ng management rograms s"ch that he#she #s #n \$ace b% the )a\$\$ &"arter of +, +1' wh#ch #s the t#me for o"r ne . t accred#tat#on (#s#t.

1. :tab#\$\$;at#on of the enro\$\$ment

+. : trong #nd"str% demand for the grad"ates

7. Act#(e Ad(#sor% 6oard 3o"nc#\$\$

9. Ma#nta#n#ng accred#tat#on

: 2 e ha(e " graded the man"fact"r#ng \$aborator% and are #n d#sc"ss#on w#th the !T  
1e artment to " grade the Eng#neer#ng 3om "ter Lab. Th#s " grade w#\$\$ ha en d"r#ng 3hr#stmas brea4.

2 e ha(e to add one new ten"re-trac4 fac"\$t% w#th#n the ne.t two  
academ#c %ears #n order to to 4ee the rogram c"rrent and sat#sf% the accred#tat#on re&"#rements.

**N>A**

Term		Industrial Engineering	
Fall Quarter 2012	Total	<u>18</u>	
Fall Quarter 2013	Total	<u>54</u>	
Fall Quarter 2014	Total	<u>78</u>	
Fall Quarter 2015	Total	<u>109</u>	
Fall Quarter 2016	Total	<u>120</u>	
Fall Quarter 2017	Total	<u>122</u>	
Fall Semester 2018	Total	<u>102</u>	
#ource/ .ioneer data			
Date 0\$1 0\$2010			