Beginning of Advisory Minutes- 2012-2013-2014

MET Industrial Advisory Committee

23.10.13

Meeting Minutes for 26 October 2012

MET IAC Members

Present

Ms. Crystal Enoch; Zia Natural Gas Co.
Mr. Evan Ferguson, MET graduating senior
Mr. Christopher Herrera, MET graduating senior
Watson, S.A.
Mr. Russell Ortiz; Trane *Inc.*
Mark Petrie; *TriAxis Engineering Inc.* .
Dr. Ed Pines; NMSU, IE
Ms. Gabriela Ramirez, spring 2012 MET grad
Mr. Jorge Rosales, *Electromechánica*
Mr. Art Telles, MET graduating senior
Mr. Kyle Weaver, MET graduating senior

Absent

Mr. Michael Barreras, General Electric
Facility
Ms. Robby Forster; *Louisiana Energy Services*
Mr. Clint Hall; Sandia National Laboratories
Mr. Bernard (B.J.) Lackey;*General Motors
Mr. Jessie Nichols;* Los Alamos Nat. Lab
Administrat.
Mr. Michael Owen; NTEC/White Sands Test
Mr. Scott Pennington; *Louisiana Energy Services*
Mr. Edward Romero, Sandia Nat. Laboratories
Mr. Bob Sachs; *Team Technologies Inc.*
Mr. Simón Saiz; NM Dept. of Finance
Mr. Erik Skarsgard; Jacobs Technology

NMSU Adminstr./Faculty/Staff Present:

MET Faculty Members: Dr. Jeff Beasley – Dept. Head, Anthony Hyde (M-TEC Director), Luke Nogales and Craig Ricketts (MET Coordinator)

Adjunct Instructors: Mr. Eduardo Gamillo; *NMSU*, M-TEC.

I. **8:15** – 8:45 am — **Reception**

Coffee, juice, and donuts in the lobby of the Ed & Harold Foreman Engineering Complex, next to the ET office, ECET, CET, and MET members and ETSE Faculty and Staff.

II. **9:00** – 11:30 am — **MET Committee Meeting**

IEE (WERC) Conference Room: third floor, Ed & Harold Foreman Engineering Complex

Preliminaries

1. Welcome of members. — Members were welcomed by the chair, the MET coordinator.

2. Introduction of attendees. Attendees introduced themselves and identified their affiliations.

Note: five new members have joined the MET IAC Committee; Ms. Gabriela Ramirez and Messrs. Evan Ferguson, Christopher Herrera , Art Telles, and Kyle Weaver.

3. Introduction of meeting agenda. Meeting agenda outlined by the chair, the MET coordinator.

III. **Business Meeting Agenda Items**

1. Approval of 2010 Meeting minutes.

Meeting minutes for the 2010 meeting were unanimously approved.

2. Department Head's Report

The current number of MET majors remains at approx. 100. Retention of ET students in general and MET's in particular continues not to be an issue. At the Career Expo, companies continuing to express interest in hiring ET M graduates include P&G, Arizona Public Service, and Haliburton.

3. MET Program 2012 Outcomes Assessment Plan.

The current outcomes assessment plan was summarized by the Chair. Only minor proposed changes in emphasis were noted, compared to that of the prior year (see 2010 Meeting minutes). The plan was approved by the IAC members present

4. Curriculum changes.

At the behest of the Dept. Head, a prospective change to the curriculum being evaluated by the MET faculty would be to add a project management/manufacturing related course as a prerequisite to the capstone design course, ET 435.

5. Update on Continuous Quality Improvement (CQI) results in MET Program.

The Chair provided a summary of outcome assessment results in the form of MET graduate employment placement for 2010/2011 and 2011/2012 as well as trends in the MET Senior Exam and the FE Exam scores. Assessment results for the graduate survey were also discussed. (see attached Appendix).

6. Recruitment and Retention Activities.

See Department Head's report above.

7. Evaluation of 2012 Student Outcomes and Educational Objectives

The Student Outcomes and Program Educational Objectives were approved unanimously by the IAC members present.

8. 2012 IAC Recommendations.

(Rosales, Petrie)	Add communication skills as a separate bullet to Criterion 9. Program Criteria (MET Program Outcomes), to include standards for e-mail communication.
(Petrie, Ottiz)	Introduce Engineering Technology Accreditation Commission (ETAC) criteria to students as early as possible, in ET 101, for example. Also make visible to them for repeat exposure.
(Enoch, Petrie)	Incorporate integrated FEA software experience into curriculum.
(Rosales)	Encourage more NM companies to recruit at the Career Expo.
(all)	Consideration should be given toward filling the gap in time between ET 182/190 and ET 422 by the addition of course material to help maintain exposure to the material .
(Pines Ongoing)	Continue to make students aware of prospective graduate school track and recommend IE 365, or STAT 371, in place of EST 311G and ET 302, to students considering this track.

9. Feedback from Student Members.

(Ferguson)

More guidance and practice with behavioral questions and tips for interviewing would be helpful.

(Weaver)

Begin earlier with compilation of portfolio. Equipment in ET laboratories is outdated. One aspect that should not be changed is the overall lab experience.

10. Other — None.

IV. 11:30 am — Break for lunch.

V. 12:00 – 1:30 pm — Lunch in Stan Fulton Center at Aggie Memorial Stadium.

VI. 1:30 – ? pm — As time and schedules permit, continued faculty/committee member Discussions with open agenda.

Most relevant discussion items are included in Categories 1. – 10 above.

Appendix

DEGREE: Bachelor of Science in Engineering Technology **Current Catalog**

PROGRAM: Mechanical Engineering Technology (Total Credits 131 [or 130]) **[2012/2013]**

Accredited by the Technology Accreditation Commission of ABET Inc.

Freshman Year (35 credits)

Gen Ed from Area I: English Composition	4 [or 3]
CHEM 110G, Principles and Applications of Chemistry	4
ET 101, Introduction to Engineering Technology	1
ET 110, Introduction to Computer-Aided Drafting and Design	3
ET 120, Computation and Presentation Software	3
ET 182, Digital Logic	3
ET 190, ET 191; Applied Circuits, Applied Circuits Laboratory	3, 1
ET 210, Computer-Aided Design	2
MATH 190, Trigonometry and Pre-calculus	4
PHYS 211, 211L; General Physics I, General Physics I Laboratory	3, 1
Gen Ed from Area V: Humanities and Fine Arts*	3

Sophomore Year (34 credits)

Gen Ed from Area I: College Level Writing	3
Gen Ed from Area I: Public Speaking	3
ECON 251G, Principles of Macroeconomics, or ECON 252G, Principles of Microeconomics	3
ET 217, ET 217L; Manufacturing Processes, Manufacturing Processes Laboratory	3, 1
ET 240, Applied Statics	3
ET 262, Software Technology I	3
ET 308, ET 308L; Fluid Technology, Fluid Technology Laboratory	3, 1
ET 310, ET 310L; Applied Strength of Materials, Appl. Strength of Mat. Laboratory	3, 1
MATH 235, Math for the Technical Student I	3
PHYS 212, 212L; General Physics II, General Physics II Laboratory	3, 1

Junior Year (31 credits)

ET 241, Applied Dynamics	3
ET 302, Manufacturing Data Analysis, or EST 311G, Statistical Applications	3
ET 306, ET 306L; Fundamental and Applied Thermodynamics, Thermodynamics Laboratory	3, 1
ET 328, Kinematics of Machines	3
ET 365, Building Utilities, or ET 381, Alternative Energy Technologies	3
ET 396, Heat Transfer and Applications	3
MATH 236, Math for the Technical Student II	3
Approved technical elective	3
Gen Ed from Area IV: Social/Behavioral Sciences*	3
Gen Ed from Area V: Humanities and Fine Arts*	3

Senior Year (31 credits)

CE 450, Engineering Economy and Law, or I E /CH E 451, Engineering Economy	3
ET 410, Senior Seminar	1
ET 422, Mechanical Measurements, or ET 402, Instrumentation	3
ET 426, Analysis/Design of Machine Elements	3
ET 435, Senior Design and Project Management	3
Approved Viewing a Wider World (II), General Education management course*	3
Approved elective in management, business, or marketing; or upper division math course	3
Two approved technical electives	3, 3
Approved Viewing a Wider World (I) elective*	3
Gen Ed from Area IV; Social/Behavioral Sciences, or Area V; Humanities and Fine Arts*	3

*Courses taken to satisfy these General Education Requirements may be taken in any order.