FACULTY **C**OURSE **A**SSESSMENT **R**EPORT

Department of Biomedical Engineering

Academic Year: **2012-2013**
Term: **Fall 2012**

Course Code and Title: **BME60A Engineering Analysis and Design: Data Acquisition**

Instructor: **Bernard Choi, PhD**

Background: Please review the *ABET background* document.

Instructions: For each student outcome performance indicator, identify (1) the assignment (which quiz, quiz problem, exam problem, or project) was used to assess that indicator, (2) the maximum score possible on that assignment, (3) the performance standard for that assignment expressed in points and also as a percentage of max, (4) the number of students who were assessed on that assignment, (5) the average score achieved by them expressed in points and percentage of max, and (6) the number and percentage of BME students who achieved the performance standard.

Performance Indicators (PIs): This course assesses the following Performance Indicators (please consult the *Proposed Remapping of BME courses to Student Outcomes* document): **a2, k1.**

a2 — Students can apply knowledge of science to problems in Biomedical Engineering.
k1 — Students can collect data from biomedical systems.

PIs	Assignment used for assessment	Max. score	PI standard and % of maximum	Number of students tested	Average score and % of maximum	Number and % of BME students who met the standard
(a2)	Assignment #8	100	75 (75%)	60	90.00 (90.00%)	43 (71.40%)
	Exam #2	100	75 (75%)	60	75.00 (75.00%)	32 (53.30%)
	Average:				**(82.50%)**	**(62.50%)**
(k1)	Portable Lab #2	100	75 (75%)	60	90.50 (90.50%)	55 (90.00%)
	Portable Lab #3		75 (75%)	60	88.50 (88.50%)	55 (90.00%)
	Average:				**(81.79%)**	**55 (90.00%)**

Course Learning Outcomes: This course assesses the following Course Learning Outcomes (please consult your *Course Outline* document):

CLO1: Learn the fundamentals of computer programming **(a,k)**.
CLO2: Learn how to use LabVIEW to establish communications between the computer and instrumentation **(a,k)**.
CLO3: Acquire, condition, and reduce data collected from biomedical instrumentation **(a,k)**.

CLOs	Assignment used for assessment	Performance standard	Number of students tested	Average score (%)	Number and % of BME students who met the standard
1	Assignment #8	75%	60	90.00%	43 (71.40%)
2	Portable Labs #2,3	75%	60	81.79%	55 (90.00%)
3	Exam #2, Portable Labs #2,3	75%	60	84.67%	47.33 (78.89%)

What changes did you make in this course based on previous assessment results?

N/A – first offering of class

What recommendations do you have for improving the course the next time it is taught?

Introduce lecture on academic dishonesty, with specific examples related to course material
Replace exams with frequent quizzes
Have more in-class work/assessments
Focus more on programming fundamentals/constructs, at the beginning of class
Replace final comprehensive project with student-defined project and accompanying oral presentations and reports
Focus more on data acquisition, and allow more out-of-class learning of LabVIEW principles

What recommendations do you have, if any, regarding prerequisite courses or other ways to improve student preparation for this course?

N/A

Any other recommendations or comments?

No