TO: The Engineering Faculty

FROM: The Faculty of the School of Mechanical Engineering

DATE: August 23, 2000

RE: ME 440 Course Description Changes

The Faculty of the School of Mechanical Engineering has approved the following course
description changes to ME 440, effective Spring Semester 2001. This action is now submitted
to the Engineering Faculty with a recommendation for approval.

FROM
ME 440 Internal Combustion Engines Sem. 2. Class 2, lab. 3, cr. 3 (el.). Prerequisite: ME
300, 309, and 315.

Cycle analysis, computer modeling, measurement methods, friction, air and fuel metering, fuels
and lubricants, controls, emissions. Emphasis is on engines as thermodynamic machines
Application of Thermodynamics, Fluid Mechanics and Heat. Professor Abraham.

TO:
ME 440 Internal Combustion Engines Sem. 2. Class 2, lab. 3, cr. 3. Prerequisite: ME 300,
corequisite: ME 315.

Application of Thermodynamics, Fluid Mechanics and Heat Transfer to processes in Internal
Combustion Engines. Intake and exhaust processes in engines. Spark-ignition, compression-
ignition and alternate engines will be covered. Discussion of design and operating parameters
and their influence on engine performance. Laboratory work on engine teardown, intake
system, fuel injection system, spark-ignition and compression-ignition engines to complement
lectures. Discussion of current challenges facing engine designers.

Reason: The updated description more accurately describes the current content of the course.
The changes are largely editorial with some slight changes in emphasis because of the
evolution of the course. Also, the ME 309 prerequisite is not necessary because ME 309 is a
prerequisite for ME 315 which is also now a corequisite for ME 440. ME 315 has moved from a
prerequisite to a corequisite to enable more students who are out-of-sequence to register for
ME 440 before they graduate. The elective course designation "(el.)" will also be deleted
because it is inconsistent with the rest of the Undergraduate Catalog. Finally, the faculty listing
is being deleted from the undergraduate course description as recommended by the Committee
on Faculty Relations for all undergraduate courses.

APPROVED FOR THE FACULTY
OF THE SCHOOLS OF ENGINEERING
BY THE COMMITTEE ON
FACULTY RELATIONS

E. Daniel Hirleman, Head
School of Mechanical Engineering

CFR Minutes #929
Date 10/11/00
Chairman CFR C.D. Gochenour