

ARCHITECTURE, CONSTRUCTION & MANUFACTURING TECHNOLOGIES DIVISION

INDUSTRIAL ELECTRICITY DEPARTMENT

COURSE SYLLABUS

COURSE NUMBER: **TECM 1301**
 COURSE TITLE: **Industrial Mathematics**
Spring 2014
 CREDITS: 3 (Lecture)
 PREREQUISITE / COREQUISITE: None

Class	Class Title	Enrolled	Days & Times	Room	Class Dates
TECM 1301-0010 (85226)	Industrial Mathematics (Lecture/Laboratory)	30	Th 6:00PM - 9:00PM	Central-J.B. Whiteley Room 206	Jan 13, 2014- May 11, 2014

INSTRUCTOR: Eva Lyon, BSA, MCM, CDT, DE Instructor
eva.lyon@hccs.edu or by Eagle Online. See syllabus and more information about class on the Learning web: <http://learning.hccs.edu/faculty/eva.lyon>

COURSE DESCRIPTION

Introduction to mathematical applications utilized to solve problems in the welding, construction, electrical and other work field. Topics include fractions, decimals, percentages, simple equations, ratio and proportion, unit conversions, and applied geometry.

END-OF-COURSE-OUTCOMES

Perform operations involving fractions and decimals; compute percentages utilizing ratio and proportions; convert unit values; solve simple equations; and calculate areas and volumes of geometric solids.

TEXTBOOK: Industrial Mathematics – Workbook available at the Central Bookstore

COURSE POLICIES

Attendance

Students are expected to attend classes regularly, and to be on time for every class period. Students can be dropped from a class due to excessive absences. Excessive tardiness may be considered absences. Students are responsible for subjects, assignments, and projects covered during their absences. Consult the **Student Handbook** for more details or visit <http://www.hccs.edu/hccs/current-students/student-handbook>

Academic Honesty

Scholastic dishonesty is treated with the utmost seriousness by the instructor and the College. Academic dishonesty includes, but it is not limited to the willful attempt to misrepresent one’s work, cheat, plagiarize, or impede other students’ scholastic progress. Consult the **Student Handbook** for more details.

Students with Disabilities

Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the **Disability Support Services Office** at his / her respective college at the beginning of each semester. Faculties are authorized to provide only the accommodations requested by the **Disability Support Services Office**. For Central College, call 713 – 718 – 6164.

Cell Phones

All cell phones must be turned off during class. Cell phone activity during class is deemed disruptive to the academic process and will not be tolerated.

Calculators

This course requires the use of a scientific calculator. The student is responsible to bring her/his calculator. Cell phones are not calculators and are not allowed for use during class, tests, or exams.

Student ID

Students are required to obtain a Student ID. For additional information, consult the **Student Handbook**.

Parking Rules and Regulations

Students are required to follow HCC's regulations regarding parking and permits. For additional information, visit <http://www.hccs.edu/hccs/about-hcc/police/parking/parking-rules-and-regulations>

Books, Tools and Supplies

Students are required to purchase and bring to class the required textbooks, tools, notebooks, supplies, and writing instruments as required by the instructor.

Dress Code

Dress code must be appropriate for the class. Students must dress in a way that clothing and accessories do not compromise their safety, and the safety of others. Proper foot wear is required in all laboratories. Absolutely no sandals or other footwear that exposes the feet will be allowed.

Classroom & Laboratory Conduct

Proper behavior is expected in all classes and laboratories. Foul language and horseplay are not allowed. Making or receiving cell phone calls during class are not allowed. Sleeping in class is not allowed.

Course Withdrawal

It is the responsibility of the student to officially withdraw from a course before the official withdrawal deadline. A student who does not withdraw from a course by the deadline will receive an "F" as the final grade. Also note that under Section 51.907 of the Texas Education Code, an institution of higher education may not allow a student to drop more than six courses.

Exams:

There will be two exams as part of the grading of this class. Exams will include material from the lectures as well as content from the workbook. *Students are responsible for all the material in the workbook whether or not it is discussed in class.* **No make-up exams will be given under any circumstances!**

Grading Policy:

100-90 = A; 89-80 = B; 79-70 = C; 69-60 = D; less than 60 = F

Quizzes/Assignments	20%
Midterm Exam	40%
Final Exam	40%

Final Grade 100%

The instructor reserves the right to make any changes in the syllabus if the circumstances require it.

COURSE TIMELINE, CONTENTS & ACTIVITIES

Week # 1: Course Overview Introduction Purpose of the course Overview of course syllabus Course policies Disability Support Services Importance of updating and maintaining student data (Name, Address, ID#, phone numbers, emails) Course withdrawal, Official Day of Record, and last day for withdrawal Course tests, quizzes, exams, and assignments Course grading policies Instructor information Basic Mathematical concepts	Jan 16
Week # 2: Basic mathematical concepts Basic operations	Jan 23
Week # 3: Operations with whole numbers	Jan 30
Week # 4: Factors, Multiples and Divisibility Square and Square Root Evaluation Expressions	Feb 06
Week # 5: Basic Operations with Fractions Measurement practice using fractions	Feb 13
Week # 6: Advanced Operations with Fractions	Feb 20
Week # 7: Decimals Operations with decimals Fractions to decimal conversions Decimal to fraction conversions	Feb 27
Week # 8: Applied problems with decimals	Mar 06
Week # 9: Spring Break	Mar 13
Week # 10: Midterm Exam	Mar 20
Week # 11: Spring Holiday	Mar 27
Week # 12: Ratio, Rate, and Proportion Percentage	Apr 03

Applied problems

Week # 13: Percentage - Advanced applied problems	Apr 10
Week # 14: Unit conversion and metric system Measurements with multiple units	Apr 24
Week # 15: Conversion factors Metric System	May 01
Week # 16: Exponents and scientific notation Operations with Exponential Expressions Engineering notation	Apr 17
FINAL EXAM	TBA