Richland College is determined to prepare the student with the knowledge and skills you need to succeed in today’s dynamic work environment. Towards this end, foundation skills and workplace competencies (SCANS skills) have been designed into the curriculum for Engineering Technology and Semiconductor Manufacturing.

**CATALOG DESCRIPTION**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course may be repeated if topics and learning outcomes vary. (2 Lec., 2 Lab.)

**COURSE LEARNING OUTCOMES**

- Identify communications system components; define, explain and use common communications terms; describe the organizational evolution of the communications industry; define and describe the rules and regulations governing the communications industry; identify and describe industry standards and protocols and describe safety procedures.

This course is taught as a part of the AT&T Accelerated Technical Training Program.
COURSE DESCRIPTION:

Course Number: ENTC 1391
Course Title: Introduction to Communications
Credit Hours: 3  Lecture Hours: 2  Lab Hours: 2

Suggested Prerequisites: Digital Electronics

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course may be repeated if topics and learning outcomes vary.

TEXTBOOK:

Gokhale, Introduction to Telecommunications, 2nd Ed.

AccTT Personal Computer Fundamentals Student Study Guide.


SUPPLIES:

Scientific Calculator

COURSE REQUIREMENTS:

Students are encouraged to take notes in class and will turn assigned materials in for grading. To receive full credit for your work, it must be turned in one week from the date of the assignment, unless otherwise specified by the instructor. Late work will be accepted but only partial credit will be given. Students must participate and complete lab assignments during the scheduled lab time, unless alternative arrangements are made.

METHOD OF PRESENTATION:

The class will be presented using formats that include lectures, lab experience, demonstrations, discussions and/or group participation. Student participation and interaction is expected.
METHOD OF EVALUATION:
Evaluation will be based upon completion of all assigned work. The course average will be computed as follows:

- Quizzes & Laboratory Grade ......................... 25%
- Final Module Exam ......................................... 75%

Unless otherwise specified by the instructor, the grading system will be:

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<th>Grade</th>
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ATTENDANCE POLICY:
You are expected to attend all classes and are fully responsible for your attendance. If at any time you wish to drop this course, or to withdraw from the college, initiate that action yourself. Do not assume that if you stop attending class you will be automatically dropped. It is the student’s responsibility to drop or withdraw. You must withdraw from this course before the drop date specified to receive a grade of “W”.

WITHDRAWAL POLICY:
If you are unable to complete this course, it is your responsibility to withdraw formally.

The withdrawal request must be received in the Registrar’s Office by

___ February 29, 2015 ___ (COURSE DROP DATE). Failure to do so will result in your receiving a performance grade, usually an “F”.

If you drop a class or withdraw from the college before the official drop/withdrawal you will receive a “W” (Withdraw).

CLASSROOM FOOD AND DRINK POLICY:
Food and drink are not allowed in the classroom. (ref. OM CHB-801)

SPECIAL INFORMATION:
If you are a student with a disability and / or special needs who require ADA accommodations, please contact Richland College Disability Services office.

Students who will be absent from class for the observance of religious holiday must notify the instructor in advance. Please refer to the college catalog Student Obligations section.
INSTITUTION POLICIES:
For Institution Policies, please refer to the Richland College website
www.richlandcollege.edu  (current students) or to
www.richlandcollege.edu/syllabusinfo/syllabisInformation.pdf

SYLLABUS CHANGE DISCLAIMER:
The instructor reserves the right to amend a syllabus as necessary

GUIDELINES FOR LABORATORY REPORTS
Unless otherwise specified, lab reports should be written using the following guidelines:

Lab Report

Lab # ________ (assigned by the instructor)
Title _________________________ (assigned by the instructor)
By __________________________ (student’s name)
on ______ / ______ / _______ (date the lab was done)

Objective:
(States specifically what is to be done in the lab.)

Diagram or Schematic:
(A drawing that gives an accurate description of how the lab is wired; Include values
and any variations of the hook-up.)

Measurements and Calculations:
(This is where theory and practical are compared. Predict and/or justify the
measurements with a calculation. A sample of each type of calculation is to be shown
illustrating an understanding. Include any pertinent graphs or charts.)

Observation and Analysis
(Explain the outcome of the experiment and what was gained by doing it. This should
be a complete paragraph explaining how the objective was met and what conclusions
were drawn as a result of the experiment.)
COURSE OBJECTIVES

Upon satisfactory completion of this course, the student will be able to:

A. Discuss personal computer fundamentals.
B. Describe memory operation.
C. Categorize a computer virus.
D. Determine requirements to upgrade software.
E. Discuss computer power supply requirements.
F. Utilize operating system diagnostics.
G. Determine communications protocols.
H. Identify BIOS POST beep codes.
I. Examine modulation methods and limitations.
J. Discuss data transfer using a modem.
K. Discuss techniques of TDM & FDM.
L. Discuss public switched and LAN telecommunication networks.

SCANS SKILLS:

The skill standards listed in this section are from the Secretary of Labor’s Commission on Achieving Necessary Skills (SCANS) report. SCANS skills activities shown in bold indicate learning activities specific to this class.

MAXIMIZE RESOURCE ALLOCATIONS

Allocate time by organizing class time to accomplish class activities and assignments. Feedback on observed effective use of available time will be provided.

USE INFORMATION SKILLS

Acquire, Evaluate, Organize, Maintain, Interpret, Communicate, and Process Computer information through means such as lectures, literature, computer resources, lab reports, portfolios, and group discussions to accomplish class requirements and successfully achieve the learning outcomes.

Evaluate Information by collecting and evaluating system data and comparing it to calculated results.

EMPLOY INTERPERSONAL SKILLS

Participate as a team member by interacting within groups during lab or group projects. Feedback on observed team participation will be provided.
USE TECHNOLOGY

Select Technology by identifying electronic, electromechanical, and/or computer resources to accomplish a defined task.

Apply Technology by utilizing electronic test equipment and computer applications to analyze electronic circuits.

Maintain Technology by monitoring, evaluating, adjusting, and repairing electronic equipment.

Troubleshoot technology by applying troubleshooting techniques as needed to interact, assess, and correct system malfunctions.

ENHANCE BASIC SKILLS

Demonstrate (technical) writing skills through written lab reports, technical presentations, etc.

Demonstrate listening skills by acquiring, interpreting, and evaluating data from lectures and group discussions required for class assignments.

Demonstrate reading competence through the understanding and interpretation of written materials, including texts, manuals, graphs, tables, schedules, and charts to explain or solve engineering technology problems.

Demonstrate arithmetic skills utilizing numerical values, such as percentages and dimensions, acquiring data from tables, charts, and graphs to convey or solve engineering technology related problems.

Demonstrate mathematical skills by selecting and applying appropriate mathematical formulas to explain and solve engineering technology related problems.

APPLY THINKING SKILLS

Exhibit decision-making skill when selecting tools, mathematical formulas, data records, and project selections.

Use problem solving skills in the application of scientific and engineering principles to solve real world problems.

Visualize mind’s eye concept by organizing and processing symbols, graphs, objects, and other information, such as determining a circuit operation from a schematic, seeing a finished product from a blue print, and seeing a product from a CAD line drawing and schematic.
Exhibit reasoning skills by using logic to draw conclusions from available data and applying scientific standards and principles to solve technical problems.

DISPLAY APPROPRIATE PERSONAL QUALITIES

Exhibit responsibility by demonstrating task completion to required standards, paying attention to detail, attendance, punctuality, and enthusiasm. Feedback on observed responsibility exhibited will be provided.

Exhibit self-esteem by showing confidence in one’s own skills and abilities and an awareness of one’s capabilities. Feedback on observed self-esteem exhibited will be provided.

Demonstrate appropriate social skills by the interaction in group or team setting, which includes self assertion, listening, and participation. Feedback on observed social skills exhibited will be provided.

Display self-management skills by demonstrating task completion to required standards, paying attention to detail, attendance, punctuality, and enthusiasm. Feedback on observed self-management skills exhibited will be provided.

Display integrity/honesty by demonstrating behavior consistent with professional and ethical standards commonly held in industry and society. Feedback on observed integrity/honesty exhibited will be provided.
COURSE CALENDAR:

SEMESTER / YEAR:  _SPRING_ / 2015
course / section: ENTC 1391 / 83701
CLASS MEETING DAYS AND TIMES:  _Tuesday and Thursday 6:30 - 9:30 PM_
INSTRUCTOR:  _Larry Bonnell_  __________  OFFICE NUMBER:  __________
PHONE NUMBER:  _214-681-5671_  __________  EMAIL:  __________
OFFICE HOURS:  _Call to schedule before and after class or other times / days._

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_Course Syllabus:_ Allow two full hours for the exam

_Course Syllabus:_ Return 2.3.15
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