CHATTANOOGA STATE COMMUNITY COLLEGE
CHATTANOOGA, TENNESSEE
ENGINEERING TECHNOLOGY DIVISION

COURSE SYLLABUS

RP 264 - HEALTH PHYSICS

Instructor: **Mark A. Palmer**
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Class Hours/Credit Hours: 4
Semester: Spring 2011
Room: O-177/176

Catalog Course Description:
A study of radiation dosimetry, biological effects of ionizing radiation, radiation protection for occupational exposed ad special groups, and instrumentation used in radiation detection analysis and measurement.

Prerequisites:
PHYS 1030; RP 204

Corequisites:
None

Entry Level Standards
None

Textbook/Materials

1. Radiation Protection, Second Edition, Jacob Shapiro; Harvard University Press

Institutional Student Learning Outcomes

ISLO1	Communication
ISLO2	Competence in Specialty Area
ISLO3	Critical Thinking & Analytical Skills
ISLO6	Work Ethic

Program Educational Outcomes

PEO1	Knowledge of mathematics, basic sciences, and technology to solve problems. [ISLO2] [ISLO3]
PEO2	Conduct experiments; collect and analyze data.
PEO11.	The ability to use the techniques, skills, and modern radiological tools necessary to function as an radiation protection technician [ISLO 1] [ISLO 2] [ISLO3] [ISLO6]

I. Student Outcomes

Students will demonstrate the ability to:

SO1 Understand External and Internal Dosimetry. [PEO1] [PEO2] [PEO11]
SO2 Understand External Exposure Control [PEO1] [PEO2] [PEO11]
SO3 Understand Airborne Radioactivity Control [PEO1] [PEO2] [PEO11]
SO4 Understand Radioactive Material Control [PEO1] [PEO2] [PELO11]
SO5 Understanding Environmental Monitoring [PEO1] [PEO2] [PEO11]

	Alignment of Assessments with SOs (actual assessments are defined below)				
SOs	SO1	SO2	SO3	SO4	SO5
Assessments:	a) Lab b) Hr. Exam c) Final Exam	a) Lab b) Hr Exam c) Final Exam	a) Lab b) Hr Exam c) Final Exam	a) Lab b) Hr Exam c) Final Exam	a) Lab b) Hr Exam c) Final Exam

II. Course Objectives

O1. Describe the principles of operation and characteristics of the types of dosimetry used at the plant (thermo luminescent dosimeters, film badge, alarming dosimeters, pocket ion chamber, teledosimetry, optical-luminescent dosimeters) including: range(s) of each device, effects of fading and drift, advantages of each type of device, limitations of each type of device, radiofrequency interference [SO 1-5]

O2. Explain the plant's administrative controls over the issue and control of dosimeters including the following; responsibility for issue, collection, reading, and recording results, procedures for issuing dosimeters, procedure for collecting, reading, and recording results, quality control checks of dosimeters *(plant specific)* [SO 1-5]

O3. Describe the plant calibration program for dosimetry. *(plant specific)* [SO 1-5]

O4. Describe the types of dosimetry required for various work situations, *(plant specific)* such as: entry into the restricted area, entry into the radiologically restricted area, entry into posted radiation areas, high radiation areas, or very high radiation areas, visitors, entry into areas with neutron radiation, entry into areas of non-uniform radiation fields, planned special exposures [SO 1-5]

O5. Describe the method and equipment used at the plant to determine doses from various types of radiation including *(plant specific).* Gamma whole-body dose; gamma extremity dose, beta skin dose, neutron dose [SO 1-5]

O6. Demonstrate the proper method for wearing dosimetry under various conditions, including determining the proper location of dosimetry. [SO 1-5]

O7. Read and re-zero self-reading dosimeters (pocket ion chambers, digital alarming dosimeter). [SO 1-5]

O8. Describe when a planned special exposure is allowed and the detailed requirements of the planned special exposure. [SO 1-5]

O9. Explain the plant's requirements for the use of multiple whole-body dosimetry *(plant specific)* including: conditions under which multiple badging is required , proper placement of dosimetry, administrative procedures for issuing and collecting multiple dosimeters, method of determining whole-body dose of record [SO 1-5]

O10. Explain the plant requirements for the use of extremity dosimetry *(plant specific)*including: conditions under which extremity dosimetry is required , administrative procedures for issuing and collecting extremity dosimetry, type(s) of extremity dosimeters [SO 1-5]

O11. Describe the plant criteria for performance of investigations of discrepancies in dosimetry readings *(plant specific).* [SO 1-5]

O12. Explain actions to take in the event of abnormal situations *(plant specific)* such as: lost thermoluminescent dosimeter, pocket ion chamber, or digital alarming dosimeter, damaged thermoluminescent dosimeter, pocket ion chambers, digital alarming dosimeter, off-scale pocket ion chambers or alarm on electronic dosimeter, exposure in excess of plant administrative limits or nuclear regulatory limits, significant difference between multiple dosimeter readings [SO 1-5]

O13. Explain the purpose and procedures for processing NRC Form 4 and 5. [SO 1-5]

O14. Describe the plant exposure tracking system *(plant specific)* [SO 1-5]

O15. Define these terms: annual limit on intake , derived air concentration , weighting factors, solubility class [SO 1-5]

O16. Explain how annual limit on intake, committed dose equivalent, committed effective dose equivalent, and the target organ relate to the appropriate derived air concentration. [SO 1-5]

O17. Identify the specific radionuclides of concern for assessment of internal exposures, including: sources of the nuclides (10CFR20 Appendix B), critical organ, mode(s) of uptake and elimination (ICRP30 biokinetic models) [SO 1-5]

O18. Identify derived air concentration values and calculate derived air concentration hours for practical situations that involve exposure of individuals to airborne radioactivity (10CFR20 Appendix B). [SO 1-5]

O19. Determine the total effective dose equivalent and total organ dose equivalent and explain the basis for each. [SO 1-5]

O20. Identify the basic concepts of internal dosimetry and internal dose calculations. [SO 1-5]

O21. define biological half-life and effective half-life [SO 1-5]

O22. describe (in general terms) the models used by International Commission on Radiation Protection to assess internal dose from ingestion and inhalation [SO 1-5]

O23. estimate dose to internal organs from swallowing or breathing radioactivity [SO 1-5]

O24. describe the causes of uncertainties in internal dose assessment calculations [SO 1-5]

O25. Describe the means for assessing uptake of radioactivity (bioassays), including; whole-body count, urinalysis, fecal analysis, nasal smears, airborne radionuclide concentrations [SO 1-5]
O26. Discuss the required frequency for performance of bioassays including; initial, periodic, allowing potential uptake, on termination [SO 1-5]
O27. Describe the plant requirements for recording and retaining bioassay results. *(plant specific)* [SO 1-5]
O28. Demonstrate the proper operation of the whole-body counter and describe the interpretation of the results. *(plant specific)* [SO 1-5]
O29. Describe the plant requirements for monitoring and reporting internal exposure. *(plant specific)* [SO 1-5]
O30. Describe the plant requirements for performing a prospective evaluation of the need for internal monitoring. (plant specific) [SO 1-5]
O31. State the purpose of having plant administrative limits for radiation exposure (such as margin from regulatory limits). [SO 1-5]
O32. Explain the differences between general area dose rate and contact dose rate and how each is used to control exposures. [SO 1-5]
O33. Define and state the posting requirements for the following: controlled area, radiologically restricted area, radiation area, high radiation area, locked high radiation area, very high radiation area, hot spots (plant specific) [SO 1-5]
O34. Describe techniques for controlling individual exposures during radiological work, such as: use of pocket ion chambers or alarming dosimeters to allow workers to monitor dose received, assignment of stay times, use of radiation work permits (RWP), radiological protection technician job coverage (local or video monitor), use of low dose waiting areas, use of remote electronic dosimeters [SO 1-5]
O35. Describe the access controls required for entry into each level of controlled area (as applicable) *(plant specific)* including the following*:* radiation work permit requirements, dosimetry, notification to Radiological Protection Department, instrument or alarming dosimeter, locked barriers, warning signs and lights and key controls [SO 1-5]
O36. Perform a radiation survey and *(plant specific)*describe plant procedures for performance of routine radiation surveys, including: frequency of surveys, instruments to be used, areas to be surveyed, survey techniques, documentation of results [SO 1-5]
O37. Describe precautions and survey techniques for entering an area where radiation levels are unknown. [SO 1-5]
O38. Describe plant procedures for controlling exposure to beta radiation *(plant specific).* [SO 1-5]
O39. Identify techniques for controlling workers' exposure to beta radiation, such as the wearing of protective clothing, face shields and glasses. [SO 1-5]
O40. Explain how exposure goals can be used to reduce individual and collective exposures; for specific radiological jobs, for work groups, for the plant [SO 1-5]

O41. Explain the ALARA concept and how it is applied to radiological work at the plant (for example, time, distance, shielding, engineering controls and source reduction). [SO 1-5]
O42. Identify the action levels and corresponding dose reduction steps taken based on estimated cumulative exposure *(plant specific).* [SO 1-5]
O43. Describe the plant exposure reduction program for radiological work *(plant specific)*, including the following; ALARA review of proposed modifications, ALARA review of work packages, preparation of dose estimates, identification of dose reduction techniques, post-job review for lessons learned *(plant specific)* [SO 1-5]
O44. Describe the concept of "total risk" as applied to prescription of radiological work controls. [SO 1-5]
O45. Describe the plant's requirements for performing total effective dose equivalent ALARA evaluations *(plant specific).* [SO 1-5]
O46. Describe the composition and function of the plant's ALARA committee *(plant specific).* [SO 1-5]
O47. Describe work time reduction techniques that can be used to reduce worker's radiation exposure, such as the following: pre-job planning and preparation, pre-job mock-up training for worker familiarity, review of procedures for workability and efficiency, use of special tools to improve worker efficiency, improvement of worker comfort by controlling environment (temperature, lighting, humidity, space), prefabrication of equipment in low-dose or no-dose areas, decontamination to reduce protective clothing requirements [SO 1-5]
O48. Describe techniques by which increased distance can be used to reduce workers' radiation exposure, such as: positioning workers away from hot spots or high dose areas, using remote operators or special tools to increase workers distance from a source, removing equipment to low dose areas for maintenance [SO 1-5]
O49. Describe the consequences of removing permanent or temporary shielding without proper review and authorization. [SO 1-5]
O50. Describe the plant's administrative procedures for the control of temporary shielding *(plant specific).* [SO 1-5]
O51. Discuss factors that determine the ultimate effectiveness of installing temporary shielding, such as: cost of installation (dollars and man-rem) versus benefit, physical space limitations, 10 CFR 50.59 review constraints, floor loading constraints, pipe and pipe hanger load constraints [SO 1-5]
O52. Evaluate the effectiveness of temporary shielding in various practical applications. [SO 1-5]
O53. Describe source reduction techniques that can be used to reduce workers' radiation exposures including the following: decontamination of major system components, flushing hot spots, sequencing work so high dose rate items are removed from the work area early on, reduction of cobalt in system components, enhanced filtration of reactor coolant, early boration

(PWR), hydrogen peroxide (PWR), lithium control (PWR), soft shutdown (BWR) [SO 1-5]

O54. Describe components that contribute to cobalt inventory in the reactor coolant (stellite valve seats, pump bearings). [SO 1-5]

O55. State the plant limits for radioactive contamination for release of materials, equipment, and areas for unrestricted use. *(plant specific)* [SO 1-5]

O56. State the plant limit (alarm set point) for radioactive contamination on personnel. *(plant specific)* [SO 1-5]

O57. Define and state the posting requirements for contaminated areas. *(plant specific)*

O58. Describe plant procedures for marking and packaging radioactivity contaminated materials. *(plant specific)* [SO 1-5]

O59. Explain the difference between loose and fixed contamination. [SO 1-5]

O60. Discuss the reason for having lower limits for alpha contamination. [SO 1-5]

O61. Identify potential sources of radioactive contamination, including work operations that can generate contamination. [SO 1-5]

O62. Describe techniques for controlling the spread of contamination to personnel and equipment, including the following: use of protective clothing, packaging of contaminated materials, use of containment devices, control of leaks from radioactive systems, decontamination [SO 1-5]

O63. Describe plant requirements for monitoring personnel for radioactive contamination. *(plant specific):* when leaving contaminated areas, when leaving hot particle areas, when leaving the radiologically restricted area, when leaving the plant [SO 1-5]

O64. Describe plant requirements for monitoring tools and equipment for radioactive contamination *(plant specific).* when leaving the radiologically restricted area, for unrestricted use in the radiologically restricted area, for storage or reuse within the radiologically restricted area, for release from the plant [SO 1-5]

O65. Perform an area contamination survey, and *(plant specific),* describe plant procedures for performing routine area contamination surveys), including: frequency of surveys *(plant specific),* instruments to be used, areas to be surveyed, survey techniques, documentation of results *(plant specific)* [SO 1-5]

O66. Describe plant procedures for performing special contamination surveys *(plant specific)*, including: radioactive particles on personnel or equipment , radioactive particles in areas, small volumes of liquid leaving the radiologically controlled area, loose material, such as sand, leaving the radiologically controlled area [SO 1-5]

O67. Discuss the normal uses, (*plant specific* locations), advantages, disadvantages, and relative sensitivity of the following contamination detection devices; bag counters, conveyor-type contamination monitors, portable frisker, portal monitor, tool monitors, whole-body contamination monitor [SO 1-5]

O68. Describe plant procedures for controlling hot particles *(plant specific)* [SO 1-5]
O69. Define a full set of protective clothing under normal circumstances *(plant specific)* [SO 1-5]
O70. Describe other types of protective clothing available, including conditions under which each is used, procedures for donning and removing protective clothing and inspections of clothing prior to use [SO 1-5]
O71. Describe the devices used for containment of contamination during radiological work, such as drapes, glove bags, tents, drain bottles, berms, absorbents to contain liquid and catch containments [SO 1-5]
O72. Describe methods used to protect against facial contamination such as face shield, "ski-mask" and specially designed hoods [SO 1-5]
O73. Identify the conditions in which the use of each type of containment device is to be considered [SO 1-5]
O74. Explain the inspections that are to be performed prior to the use of containment devices [SO 1-5]
O75. Describe techniques to minimize the spread of contamination including: protective clothing requirements and precautions during use, removal of contaminated equipment, post job removal or decontamination of the containment device [SO 1-5]
O76. Identify methods by which a work site can be prepared for the performance of highly contaminated work such as: using disposable plastic, covering the work area with launderable, reusable sheeting, covering the work area with strippable paint, painting concrete surfaces for ease in decontamination [SO 1-5]
O77. Define cross-contamination and describe how it can result in the uncontrolled spread of contamination [SO 1-5]
O78. Describe techniques to minimize the spread of contamination when contaminated materials are brought out of posted areas [SO 1-5]
O79. Describe the purpose and use of a step off pad in controlling the spread of contamination [SO 1-5]
O80. Discuss the generic plant requirements for entering and working in areas with contamination above plant limits such as: radiation work permit, protective clothing, use of tools for a hot tool room, step off pad, notification of the radiological protection department [SO 1-5]
O81. Identify the isotopes of primary concern for airborne radioactivity at the plant (such as H3, Co-58, C0-60, CS-134, CS-137, I-131). [SO 1-5]
O82. Describe the procedures for posting areas as airborne radioactivity areas. (10CFR20) [SO 1-5]
O83. Explain the characteristic difference between particulate, iodine, tritium, and noble gases and how they affect the method of detecting and controlling airborne radioactivity. [SO 1-5]
O84. Collect airborne samples, and describe plant procedures for collecting routine airborne radioactivity samples *(plant specific),* including: frequency of surveys, types of surveys performed (particulate, iodine, noble gas,

tritium), instruments to be used, areas to be sampled, sampling techniques, documentation of results [SO 1-5]

O85. Describe the procedure for determining the derived air concentration, derived air concentration hours, and annual limit on intake for a worker in an airborne radioactivity area. [SO 1-5]

O86. Explain the difference between low-volume, high volume, and lapel air samples, including when each is used. [SO 1-5]

O87. Discuss the purpose of using a continuous air monitor and identify situations in which continuous air monitors should be used. [SO 1-5]

O88. Evaluate trends in airborne radioactivity based on sampling results. [SO 1-5]

O89. Identify work situations and work practices that could produce airborne radioactivity, such as: opening a contaminated system, working in highly contaminated areas, grinding, cutting, or welding radioactive or contaminated materials, leaks from contaminated systems [SO 1-5]

O90. Describe controls that can be used to reduce exposure to airborne radioactivity, such as: use of filtered ventilation, decontamination of areas or equipment to eliminate the source of airborne radioactivity, use of containment devices (such as, tents, glove bags) and repair of leaks in contaminated systems, performance of work under water or keeping contaminated materials wet, use of respirator (last resort) [SO 1-5]

O91. Identify the primary ventilation and filtration systems in the plant. *(plant specific)* [SO 1-5]

O92. Identify plant requirements that must be met before an individual is issued a respirator such as: training the individual in the proper use of equipment, medical evaluation, quantitative fit test [SO 1-5]

O93. Define protection factor (10CFR20). [SO 1-5]

O94. Identify the protection factors, advantages, and disadvantages of each type of respirator used in radiological applications at the station.; full-face negative pressure respirator, full-face positive pressure respirator, full-face air line respirator, air line (bubble) hood respirator, self-contained breathing apparatus [SO 1-5]

O95. Describe the conditions under which each type of respiratory protection equipment must be used. [SO 1-5]

O96. Describe plant procedures for issue and control of respiratory protection equipment. *(plant specific)* [SO 1-5]

O97. Demonstrate proper procedure for donning and removing each type of respiratory protection equipment used at the station. *(plant specific)* [SO 1-5]

O98. Discuss the difference between paper filters and charcoal filters and when each is used. [SO 1-5]

O99. Discuss plant procedures for tracking exposure to airborne radioactivity, including: levels at which tracking is required, sampling requirements, use of protection factors, documentation of exposures, time keeping, reporting and summing exposures [SO 1-5]

O100. Identify the packaging, marking, and labeling requirements for radioactive materials stored on site. *(plant specific)* [SO 1-5]
O101. Identify NRC-licensed radioactive materials that require special controls, and discuss the controls required. [SO 1-5]
O102. Describe the approval and posting requirements for radioactive material areas and radioactive material storage areas. [SO 1-5]
O103. Describe plant procedures for storing and retrieving radioactive materials. *(plant specific)* [SO 1-5]
O104. Identify special precautions and restrictions for storing radioactive materials outdoors. [SO 1-5]
O105. Explain the purpose of the plant environmental monitoring program. [SO 1-5]
O106. Describe the methods used to conduct environmental monitoring, such as: posting thermoluminescent dosimeters off-site, air sampling, vegetation sampling, aquatic life sampling, water sampling, soil sampling, milk sampling [SO 1-5]

III. Assessment

Grades will be determined in the following manner:

				Assessment Method
A1	Laboratory Participation	=	20%	Test/Performance
A2	Assignments/Quizzes	=	10%	Test/Performance
A3	Hourly Exams	=	50%	Test
A4	Final Exam (written comprehensive)	=	20%	Test
		=	100%	

A1. Lab exercises will be performed throughout the semester to apply the concepts discussed in the class lecture. The instructor will observe the students and sign off on each student's lab work. **Regular classroom/laboratory attendance and participation is mandatory.** Missed lab work must be made up in a timely manner (see note below) in order to receive credit for that portion of the course. **Multiple unexcused absences may result in automatic failure of the class.** [SO1- SO6]
A2. Assignments/Quizzes may be made by the instructor. Assignments must be completed in a professional manner and turned in when scheduled. At the discretion of the instructor, late assignments may not be accepted. Quizzes may be given at random times during the semester. The quizzes are designed to encourage keeping up with course material, class attendance, and participation. The assignments and quizzes will count for 10% of the overall grade. (SO 1, SO 1-3)
A3. Hourly exams will be given during the course of the semester. This cognitive-based exam will require students to demonstrate knowledge of Radiation Protection. [SO1 – SO6]
A4. A final written exam will be given at the end of the semester to assess the student's cognitive understanding of Radiation Protection. [SO1 – SO6]

Note: Make-up tests (A2, A3) will be given only in the case of an excused absence, at the discretion of the instructor.

Note: Certification: Students will be required to make a minimum of an 80 to obtain the Institute of Nuclear Power Operations Uniform Curriculum Certification of completion.

IV Topics:

Topics discussed in this course shall include, but not be limited to, the following:

Week	Topic
1	External Dosimettry.
2	External dosimetry continued and Internal Dosimetry
3	Internal Dosimetry
4	External Exposure Control
5	External Exposure Control
6	External Exposure Control
7	External Exposure Control
8	Contamination Control
9	Contamination Control
10	Airborne Radioactivity Control
11	Airborne Radioactivity Control
12	Radioactive material Control
13	Environmental Monitoring
14	Final Exam

V. Grading Scale

Letter grades will be assigned in accordance with the Academic Regulations in the Chattanooga State catalog as follows:

90—100	A
80—89.9	B
70—79.9	C
65—69.9	D
0—64.9	F

VI. Course Delivery Format

Standard Format – This format is the traditional format and may use an on-line format **(eLearn)** to provide access to “static” materials which include the syllabus, course material, contact information, and presentations. Faculty must make available, when requested, a copy of the syllabus and any other instructor provided course materials, including instructor contact information. Faculty may require on-line activities and assignments to include on-line tests and submission of all written and on-line communications. The extent of on-line activities/assignments may vary by course but will be specified on the syllabus.

VII. College Policies

This class is governed by the policies and procedures stated in the current Chattanooga State Student Handbook. Additional or more specific guidelines may apply.

ADA Statement

Students who have educational, psychological, and/or physical disabilities may be eligible for accommodations that provide equal access to educational programs and activities at Chattanooga State. These students should notify the instructor immediately, and should contact Disabilities Support Services within the first two weeks of the semester in order to discuss individual needs. The student must provide documentation of the disability so that reasonable accommodations can be requested in a timely manner. All students are expected to fulfill essential course requirements in order to receive a passing grade in a class, with or without reasonable accommodations.

Disruptive Students

The term “classroom disruption” means – student behavior that a reasonable person would view as substantially or repeatedly interfering with the activities of a class. A student who persists in disrupting a class will be directed by the faculty member to leave the classroom for the remainder of the class period. The student will be told the reason(s) for such action and given an opportunity to discuss the matter with the faculty member as soon as practical. The faculty member will promptly consult with the division dean and the college judicial officer. If a disruption is serious, and other reasonable measures have failed, the class may be adjourned, and the campus police summoned. Unauthorized use of any electronic device constitutes a disturbance. Also, if a student is concerned about the conduct of another student, he or she should please see the teacher, department head, or division dean.

Affirmative Action

Students who feel that he or she has not received equal access to educational programming should contact the college affirmative action officer.

Academic Integrity/Academic Honesty
In their academic activities, students are expected to maintain high standards of honesty and integrity. Academic dishonesty is prohibited. Such conduct includes, but is not limited to, an attempt by one or more students to use unauthorized information in the taking of an exam, to submit as one's own work, themes, reports, drawings, laboratory notes, computer programs, or other products prepared by another person, or to knowingly assist another student in obtaining or using unauthorized materials. Plagiarism, cheating, and other forms of academic dishonesty are prohibited. Students guilty of academic misconduct, either directly or indirectly through participation or assistance, are immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions, which may be imposed through the regular institutional procedures as a result of academic misconduct, the instructor has the authority to assign an "F" or zero for an activity or to assign an "F" for the course.

Children
It is Tennessee Board of Regents policy that children are not permitted in the classrooms or laboratories. If you have children who must stay home for some reason, you must make other arrangements for their care than bringing them with you to class.

Communication
Tigermail is the official communication for students.

The instructor reserves the right to modify this syllabus in writing during the course of the semester.

VIII. Instructor Policies

Cell Phones
Activation of these devices represents a distraction and their use during lectures and labs (including instant messaging, games, and etc.) will be considered extremely disruptive to the learning environment. Please turn off (or set to vibrate) all such devices before entering the classroom. Please excuse yourself from the room if an emergency requires you to make or receive a phone call during class. If your cell phone goes off during a testing period, five points will be deducted from your test.

Use of Computers/Printers
The use of a computer is mandatory for all students. Students will have access to the computers in C24, C33, C54, C84, & C87. These computers are connected to the ET server and can be used to access Microsoft Office and other software. There may be times when one of the computer rooms will not be available; these times will be posted with as much advance notice as possible. **It is the student's responsibility to see that his or her username and password are working properly and that his or her password is protected.**

It is also the student's responsibility to back-up needed files. The school will not be responsible for any computer files that get "lost" or damaged.
Back-up documentation for this class (such as the class syllabus, handouts, description of class assignments, etc.) will be available to the students through eLearn. Printers are to only be used by Engineering Technology students for assignments related to engineering and engineering technology classes or labs. Paper availability may be subject to print management activities and will be requested through assigned faculty. Please help conserve paper.

Classrooms & Labs
Food and drinks are prohibited in all Engineering Technology classrooms and labs located in the Branch Center for Technology. Only plain water in a sealable container is permitted. Any form of tobacco products are also prohibited in accordance with College and TBR policy.

To Log-in C24, C33, C54, C84, & C87: Username: ET_last name first initial middle initial *(no spaces)*
Password: student
Domain (log-in): CSTCC

Note: Be sure to change your password after your initial log-in.
The instructor reserves the right to modify this syllabus in writing during the course of the semester.

VIII. Instructor Policies

TBD