



# **INSTRUCTIONAL PACKAGE**

MLT 108  
Urinalysis & Body Fluids

Effective Term  
Summer 2023

# INSTRUCTIONAL PACKAGE

## Part I: Course Information

Effective Term: Summer 2023

COURSE PREFIX: MLT 108

COURSE TITLE: Urinalysis & Body Fluids

CONTACT HOURS: 5 hours

CREDIT HOURS: 3 hours

### **RATIONALE FOR THE COURSE:**

This course introduces the routine analysis and clinical significance of urine and other body fluids.

**COURSE DESCRIPTION:** This course introduces the routine analysis and clinical significance of urine and other body fluids.

### **PREREQUISITES/CO-REQUISITES:**

NOTE: Co-Req MLT 230 and 210 with a minimum grade of C; pre-reqs MLT 115, 120 and

\***Online/Hybrid** courses require students to complete the DLI Online Student Orientation prior to completing an online course. The DLI Online Student Orientation can be found in WaveNet, under the My Student tab.

### **REQUIRED MATERIALS:**

Please visit the [BOOKSTORE](#) online site for most current textbook information. Use the direct link below to find textbooks.

Enter the semester, course prefix, number and section when prompted and you will be linked to the correct textbook.

### **ADDITIONAL REQUIREMENTS:**

Lab Coats and goggles are required for the Lab skills part of the course.

### **TECHNICAL REQUIREMENTS:**

Access to Desire2Learn (D2L), HGTC's learning management system (LMS) used for course materials.  
Access to myHGTC portal for student self-services.  
College email access – this is the college's primary official form of communication.

**CLASSROOM ETIQUETTE:** As a matter of courtesy to other students and your professor, please turn off cell phones and other communication/entertainment devices before class begins. If you are

monitoring for an emergency, please notify your professor prior to class and switch cell phone ringers to vibrate.

## Part II: Student Learning Outcomes

After successfully completing the Horry-Georgetown Technical College Medical Laboratory Technology Program, the graduate will be able to achieve the program learning outcomes. The student is advised to view the program learning outcomes in the student handbook. Reviewing the outcomes will assist the student in understanding how the terminal course objectives achieve the program learning outcomes.

Use the direct link below to find the MLT student handbook.

<https://www.hgtc.edu/documents/academics/programs/mlt/mlthandbook2022.pdf>

### COURSE LEARNING OUTCOMES and ASSESSMENTS\*:

After successful completion of this course, the student will be able to meet the following terminal behavior outcomes:

1. Identify and state the primary functions of the macroscopic structures of the kidney and urinary tract.
2. State proper care, storage and the chemical principle used on reagent strips.
3. Demonstrate procedures to maintain and troubleshoot the urinalysis lab instrument.
4. Explain each of the following for Urine, CSF, Serous fluid, Amniotic fluid, and feces:
  - a. Collection and processing of each specimen in preparation for testing
  - b. Macroscopic and microscopic examination procedure
  - c. Established terminology for describing the fluids.
  - d. Correlate the concentrations of chemical constituents with various disease states.

Week 1

#### Lecture

Materials Covered: Fundamentals of Urine and Body Fluid Analysis, 5e/ Brunzel- Chapters 2&5

#### Chapter 2

1. State 3 clinical reasons for performing a routine urinalysis.
2. Discuss 3 types of urine samples and be able to convey at least one diagnostic use for each.
3. Understand how important accurate timing is for a patient when collecting a timed urine.
4. Define the following urine collection techniques:
  - a. Random void
  - b. Midstream "clean catch"
  - c. Catheterized
  - d. Suprapubic aspiration
  - e. Pediatric collection
5. Identify 6 reasons to reject a urine sample. In addition, be able to list and justify 3 tests

that can be performed to prove a liquid is actually a urine sample.

6. Discuss the different urine preservatives, including their uses, advantages and disadvantages.
7. Explain the changes that take place in an unpreserved urine, how this affects results and how this can negatively impact patient care.

### Chapter 5

1. State the importance of using established terminology for describing urine color and clarity.
2. Discuss the origin of the following pigments and their effects on urine color:
  - Bilirubin
  - Urobilin
  - Urochrome
  - Uroerythrin
3. List appropriate color terms and the substances that can produce the colors and identify those substances that indicate a pathologic process.
4. List appropriate clarity terms, their definitions, and the substances that can cause clarity changes, and identify those substances that indicate a pathologic process.
5. Describe the effects that increased amounts of protein and bilirubin can have on urine foam.
6. Discuss the cause of normal urine odor, identify conditions that change this urine characteristic, and list any odors associated with each condition.
7. Compare and contrast the following specific gravity methods used for determining urine concentration:
  - Refractometry
  - Reagent strip method

### Lab:

Materials Covered: Lab handouts.

1. Explain Urine specimen collection procedures for:
  - a. Routine urinalysis
  - b. Clean catch specimen
  - c. 24-hour urine
2. Discuss all observations when performing a urine macroscopic examination.
3. Perform and discuss the procedure for a manual urine dipstick.
4. Explain the different tests performed on the urine dipstick.

### Week 2

#### Lecture

Materials Covered: Fundamentals of Urine and Body Fluid Analysis, 5e/ Brunzel- Chapter 3

### Chapter 3

1. Identify and explain the primary functions of the kidney and urinary tract.
2. Diagram and state the function of each part of the nephron.
3. Describe renal blood circulation and its role in renal function.

4. Describe the 3 secretory mechanisms that the kidney uses to regulate the acid-base equilibrium of the body.
5. Briefly summarize the relationship of water reabsorption to antidiuretic hormone.

### Lab:

Materials Covered: Lab handouts.

1. Discuss when a Urine Microscopic examination is to be performed.
2. Perform and discuss the procedure a Urine Microscopic examination.

### Week 3

#### Lecture

Materials Covered: Fundamentals of Urine and Body Fluid Analysis, 5e/ Brunzel- Chapters 4&6

#### Chapter 4

1. Learn and be able to state the solute composition of normal urine.
2. Understand osmolality and specific gravity measurements and their meaning.
3. Think about a protocol and one purpose you would have for each of the following procedures:
  - a. Fluid deprivation test
  - b. Osmolar clearance determination
  - c. Free-water clearance determination
4. Be able to calculate osmolar clearance and free-water clearance results with provided data.
5. Compare and contrast the following for their assessment of glomerular filtration: creatinine clearance test vs. inulin clearance test.
6. Come up with a protocol for a creatinine clearance test and discuss what factors can influence results.
7. Calculate creatinine clearance and glomerular filtration rate (eGFR) results from provided data.

#### Chapter 6

1. State the proper care and storage of commercial reagent strip and tablet tests and cite at least three potential causes of their deterioration.
2. Describe quality control procedures for commercial reagent strip and tablet tests.
3. Discuss appropriate specimen and testing techniques used with commercial reagent strip and tablet tests.
4. State the chemical principle used on reagent strips for measurement of the following:
  - Specific gravity
  - pH
5. Summarize the clinical significance of the following substances when present in urine and describe the chemical principles used on reagent strips to measure them:

- Protein
  - Blood
  - Leukocyte esterase
  - Nitrite
  - Glucose
  - Ketones
  - Bilirubin
  - Urobilinogen
  - Ascorbic acid
6. Compare and contrast the sensitivity, specificity, and potential interferences of each commercial reagent strip and tablet test.
    - Physical examination
    - Reagent strip test
    - Tablet test
  7. State the importance of ascorbic acid detection in urine, and describe methods used to detect ascorbic acid.
  8. Identify reagent strip tests that are affected adversely by ascorbic acid and explain the mechanism of interference.
  9. Describe the role of reflex testing in urinalysis and discuss the correlation between results obtained in the chemical examination and what they imply for the microscopic examination.

Lab:

Materials Covered: Lab handouts.

1. In order to perform and report the HCG & Legionella test properly, the student must be able to:
  - a. Follows the directions accurately.
  - b. Recognize when test results are falsely positive or falsely neg.
  - c. Interpret test results as to what the results mean for the patient.
  - d. Identify potential sources of error of the test.
  - e. Resolve discrepancies.
  - f. Provide justification for the ordering of the test.

## Week 4

Lecture

Materials Covered: Fundamentals of Urine and Body Fluid Analysis, 5e/ Brunzel- Chapters 7&8

Chapter 7

1. Discuss the importance of standardizing the microscopic examination of urine and describe how this standardization is achieved in the clinical laboratory.
2. Describe microscopic and staining techniques used to enhance visualization of the formed elements in urinary sediment.
3. Describe the microscopic appearance and clinical significance of erythrocytes and leukocytes in urine and correlate their presence with the physical and chemical examination of urine.
4. Describe the microscopic characteristics and location of each type of epithelium found in the urinary tract, that is, squamous, transitional, and renal tubular epithelium (proximal, distal, and collecting duct).
5. Summarize the clinical significance of increased sloughing of the urinary tract epithelium.

6. Describe the formation, composition, and clinical significance of urinary cast formation.
7. State the categories into which casts are classified, discuss the clinical circumstances that result in the formation of each cast type, and correlate the presence of casts with the physical and chemical examination of urine.
8. Describe the development of urinary crystals, including at least three factors that influence their formation.
9. Describe the characteristic form of each major type of urinary crystal; categorize each crystal type as being found in acid, neutral, or alkaline urine; and discuss the clinical significance of each crystal type.
10. Identify the following formed elements found in urine sediment, and discuss their clinical significance:
  - Bacteria    • Clue cells    • Fat    • Fecal contaminants    • Fibers
  - Hemosiderin    • Mucus threads    • Parasites    • Spermatozoa
  - Starch    • Trichomonads    • Yeast

## Chapter 8

1. Discuss the pathogenesis of glomerular damage and describe four morphologic changes that occur in glomeruli.
2. Describe the clinical features associated with glomerular disease and discuss factors that affect the degree to which they are present.
3. Describe briefly the morphologic appearances of the glomeruli, the mechanisms of glomerular damage, and the clinical presentations of the following glomerular diseases:
  - Acute glomerulonephritis    • Chronic glomerulonephritis
  - Rapidly progressive glomerulonephritis    • Focal proliferative glomerulonephritis
  - Focal segmental glomerulosclerosis    • IgA nephropathy
  - Membranoproliferative glomerulonephritis
  - Membranous glomerulonephritis    • Minimal change disease
4. Describe the pathologic mechanisms of glomerular damage in the following systemic diseases:
  - Systemic lupus erythematosus    • Diabetes mellitus    • Amyloidosis
5. State at least five clinical features that characterize nephrotic syndrome and identify diseases that are associated with this syndrome.
6. Differentiate between ischemic and toxic acute tubular necrosis and discuss the clinical presentation and urinalysis findings associated with this disease.
7. Describe the renal dysfunction and clinical features of the following renal tubular disorders:
  - Cystinosis    • Cystinuria    • Fanconi's syndrome    • Renal glucosuria
  - Renal phosphaturia    • Renal tubular acidosis

8. Compare and contrast the causes, clinical features, and typical urinalysis findings in the following tubulointerstitial diseases and urinary tract infections:
  - Acute and chronic pyelonephritis
  - Lower urinary tract infections
  - Acute interstitial nephritis
  - Yeast infections
9. Describe briefly the effects of vascular disease on renal function.
10. Compare and contrast the causes and clinical features of acute kidney injury and chronic kidney disease.
11. Summarize the pathogenesis of calculus formation. Discuss four factors that influence the formation of urinary tract calculi, and briefly review current treatment options.
12. Describe briefly the physiologic mechanisms, clinical features, and roles of the urinalysis laboratory in the diagnosis of the following amino acid disorders:
  - Cystinuria and cystinosis
  - Maple syrup urine disease
  - Homogentisic acid (alkaptonuria)
  - Phenylketonuria
  - Tyrosinuria and melanuria
13. Describe briefly the physiologic mechanisms, clinical features, and typical urinalysis findings in the following carbohydrate disorders:
  - Glucosuria
  - Diabetes mellitus
  - Galactosuria
14. Describe briefly the physiologic mechanisms, clinical features, and typical urinalysis findings in the following metabolic disorders:
  - Diabetes insipidus
  - Porphyrrias

Discuss the formation of porphobilinogen and its clinical significance.

#### Lab:

Materials Covered: Lab handouts.

1. Explain the 24-hour urine processing procedure.
2. Perform Urine Microscopic Examinations.
  - a. Interpret test results as to what the results mean for the patient.

#### Week 5

##### Lecture

Materials Covered: Fundamentals of Urine and Body Fluid Analysis, 5e/ Brunzel- Chapter 9

##### Chapter 9

1. Describe the formation of cerebrospinal fluid (CSF) and state at least three functions that the CSF performs.
2. Describe the procedure for lumbar puncture and the proper collection technique for CSF.



3. 3. Discuss the importance of timely processing and testing of CSF and state at least three adverse effects of time delay on CSF specimens.
4. 4. State the physical characteristics of normal CSF and discuss how each characteristic can be modified in disease states.
6. Discuss the clinical importance of the microscopic examination of CSF.
7. Compare and contrast the concentrations of the following constituents of CSF in health and in disease states:
  - Albumin
  - Glucose
  - Immunoglobulin G
  - Lactate
  - Total protein
8. Briefly describe protein electrophoretic patterns of CSF and the abnormal presence of oligoclonal banding.
9. Calculate the CSF/serum albumin index and the CSF/immunoglobulin G index and state the clinical importance of each index.
10. Discuss the proper microbiological examination of CSF and its importance in the diagnosis of infectious diseases of the central nervous system.
11. Briefly explain the role of CSF immunologic tests in the diagnosis of meningitis.

#### Lab:

Materials Covered: Lab handouts.

1. Perform Urine Microscopic Examinations.
  - a. Identify potential sources of error of the test.
  - b. Resolve discrepancies.

#### Week 6

##### Lecture

Materials Covered: Fundamentals of Urine and Body Fluid Analysis, 5e/ Brunzel- Chapter 10&11

##### Chapter 10

1. Describe the function of serous membranes as they relate to the formation and absorption of serous fluid.
2. Describe four pathologic changes that lead to the formation of an effusion.
3. Discuss appropriate collection requirements for serous fluid specimens.
4. Classify a serous fluid effusion as a transudate or an exudate based on the examination of its physical, microscopic, and chemical characteristics.
5. Compare and contrast chylous and pseudo-chylous effusions.
6. Correlate the microscopic examination and differential cell count of serous fluid analyses with diseases that affect the serous membranes.
7. Correlate the concentrations of selected chemical constituents of serous fluids with various disease states.

##### Chapter 11

2023-2024

1. Describe the formation and function of synovial fluid.
2. Summarize the four principal classifications of joint disease.
3. Classify synovial fluid as normal, noninflammatory, inflammatory, septic, or hemorrhagic using various laboratory results.
4. Discuss appropriate tubes for the collection and distribution of synovial fluid specimens; discuss the importance of timely specimen processing and testing.
5. State physical characteristics of normal synovial fluid and discuss how each characteristic is modified in disease states.
6. Correlate the cells and crystals observed during microscopic examination of synovial fluid with various joint diseases.
7. Compare and contrast concentrations of selected chemical constituents of synovial fluid from healthy joints with that from diseased joints.

Discuss the microbiological examination of synovial fluid and its importance in the diagnosis of infectious joint disease.

#### Lab:

Materials Covered: Lab handouts.

1. CSF Body Fluid Analysis
  - a. Discuss processing a body fluid.
  - b. Recognize when test results are falsely positive or falsely neg.
  - c. Interpret test results as to what the results mean for the patient.
2. Perform the procedure for loading a hemocytometer.
3. Calculate the dilutions needed to perform the Body Fluid cell count

#### Week 7

##### Lecture

Materials Covered: Fundamentals of Urine and Body Fluid Analysis, 5e/ Brunzel- Chapters 12 & 13

##### Chapter 12

1. Discuss the composition of seminal fluid and briefly describe the function of each of the following structures in seminal fluid formation:
  - Epididymis      • Interstitial cells of Leydig      • Prostate gland
  - Seminal vesicles      • Seminiferous tubules
2. Outline the maturation of sperm (spermatozoa) and identify the morphologic structures in which each maturation phase occurs.
3. Summarize the collection of seminal fluid for analysis, including the importance of timing and recovery of the complete specimen.

4. Describe the performance of the physical examination (appearance, volume, and viscosity) of seminal fluid and the results expected from a normal specimen.
5. Describe the procedures used to evaluate the following characteristics of sperm in seminal fluid, state the normal range for each parameter, and relate each function to male fertility:
  - Agglutination
  - Concentration
  - Morphology
  - Motility
  - Viability
6. Identify and describe the morphologic appearance of normal and abnormal forms of spermatozoa.
7. Discuss the origin and clinical significance of cells other than sperm in the seminal fluid.
8. Discuss briefly the role of quantifying the following biochemical substances in seminal fluid and identify the structure evaluated by each substance:
  - Acid phosphatase
  - Citric acid
  - Fructose
  - pH
  - Zinc

### Chapter 13

1. Discuss the collection and proper handling of vaginal secretion specimens.
2. Describe the performance of each of the following tests and discuss the clinically significant entities:
  - Wet mount examination
  - Amine test
  - KOH preparation and examination
3. Discuss vaginal secretion results associated with health, including the pH and microscopic entities.
4. Compare and contrast the causes, clinical features, typical vaginal secretion results, and treatments in the following conditions:
  - Bacterial vaginosis
  - Candidiasis
  - Trichomoniasis
  - Atrophic vaginitis

### Lab:

Materials Covered: Lab handouts.

1. Serous Body Fluid Analysis
  - a. Identify potential sources of error of the test.
  - b. Resolve discrepancies.

### Week 8

#### Lecture

Materials Covered: Fundamentals of Urine and Body Fluid Analysis, 5e/ Brunzel- Chapter 17

### Chapter 17

1. State four factors that adversely affect manual cell counts performed using a hemacytometer.
2. Discuss advantages and disadvantages of each diluent used to perform body fluid cell counts.
3. Discuss the challenges associated with cell counting of viscous fluids—for example, synovial fluid, semen—including pretreatment options and their effects if any on cell counts.
4. Describe step by-step how to perform a manual cell count using a hemacytometer.
5. Calculate the cell count in a body fluid when provided with the necessary information.
6. Explain cytocentrifugation and its use in preparing slides of body fluid for differential analysis, including the equipment needed, advantages, and disadvantages.

#### Lab:

Materials Covered: Lab handout.

Perform body fluid analysis.

1. Provide justification for the ordering of the test.

#### Week 9

##### Lecture

Materials Covered: Fundamentals of Urine and Body Fluid Analysis, 5e/ Brunzel- Chapter 16  
Chapter 16

1. Describe the principle of reflectance photometry.
2. Discuss and differentiate between semiautomated and fully automated urine chemistry analyzers.
3. State advantages gained by performing automated urine sediment analysis.
4. Compare and contrast the three technologies used to perform fully automated urine microscopy analysis—digital flow morphology, flow cytometry, and digital microscopy.
5. Discuss the advantages and disadvantages of current automated body fluid analyzers.

##### Lab

Materials Covered: Lab handouts.

1. Perform urine analysis testing on the Clinitek Urine Analyzer
2. Explain trouble shooting.

#### Week 10

##### Lecture

Materials Covered: Fundamentals of Urine and Body Fluid Analysis, 5e/ Brunzel- Chapters 14  
& 15

##### Chapter 14

1. Discuss amniotic fluid formation and the interactive role the fetus has in the composition of the amniotic fluid.

2. State at least four indications for performing an amniocentesis and the stage in pregnancy best suited for each analysis.
3. Identify at least four sources of error in amniotic fluid testing caused by inappropriate specimen handling or chemical contamination.
4. Differentiate amniotic fluid from urine.
5. Compare and contrast the following tests for fetal pulmonary maturity:
  - Lecithin/sphingomyelin ratio
  - Phosphatidylglycerol
  - Foam stability index
  - Lamellar body count
6. Describe the analysis of bilirubin in the amniotic fluid ( $\Delta A_{450}$ ) and the relationship of this value to fetal status and the need for medical intervention.

### Chapter 15

1. Describe the composition and formation of normal feces.
2. Describe the effect of abnormal intestinal water reabsorption on the consistency of feces.
3. Explain the three physiologic mechanisms that cause diarrhea.
4. Differentiate between secretory and osmotic diarrhea using the fecal osmolality.
5. Identify at least three causes of secretory and osmotic diarrhea.
6. Compare and contrast the mechanisms of maldigestion and malabsorption and the relationship of each to diarrhea.
7. Differentiate inflammatory from noninflammatory acute diarrhea based on symptoms, diarrheal mechanisms, and fecal laboratory tests.
8. Identify pathogens associated with acute diarrhea and their mode of transmission.
9. Categorize diseases associated with chronic diarrhea as inflammatory or noninflammatory, and state the predominant diarrheal mechanism.
10. Differentiate between steatorrhea and diarrhea, and discuss the physiologic conditions that result in steatorrhea.
11. Describe the following types of fecal collections and give an example of a test requiring each type:
  - A random stool collection, with and without dietary restrictions
  - A 3-day fecal collection, with and without dietary restrictions
12. Describe the macroscopic characteristics of normal feces.
13. List the major causes of abnormal fecal color, consistency, and odor.
14. State the primary purpose for the detection of fecal neutrophils.
15. Discuss the qualitative assessment of fecal fat using a microscopic examination and the clinical utility of quantitative fecal fat tests.
16. List at least five causes of blood in feces and state the importance of fecal occult blood detection.
17. Discuss the advantages and disadvantages of the different indicators used on commercial slide tests for fecal occult blood.

18. Compare and contrast the following methods for the detection of fecal blood:
  - Slide tests
  - Quantitative chemical tests
  - Immunologic assays
  - Radiometric assays
19. Describe the chemical principle used for screening feces or vomitus for fetal hemoglobin.
20. Discuss the effect that disaccharidase deficiency has on fecal characteristics and formation.
21. State two methods for the qualitative detection of abnormal quantities of fecal carbohydrates.

State the purpose and describe the principle of the xylose absorption test.

Lab:

1. Lab Comprehensive Evaluation
2. Correlate individual testing procedures with diseases.

***\*Students – please refer to the Instructor’s Course Information sheet for specific information on assessments and due dates.***

## **Part III: Grading and Assessment**

### **EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS\*:**

Students’ performance will be assessed, and the weight associated with the various measures/artifacts are listed below.

#### **EVALUATION\***

Chapter Tests (4 tests)	50%
Lab Assignments	15%
Lab Comprehensive evaluation	50%
Lab skills competencies	25%
Weekly Affective Skills	25%
Homework Assignments	5%
In class quizzes (5)	10%
Final Exam	<u>20%</u>
	100%

***\*Students, for the specific number and type of evaluations, please refer to the Instructor’s Course Information Sheet.***

#### **GRADING SYSTEM:**

Please note the College adheres to a 10 point grading scale A = 100 – 90, B = 89- 80, C = 79 – 70, D = 69 – 60, F = 59 and below.

Grades earned in courses impact academic progression and financial aid status. Before withdrawing from a course, be sure to talk with your instructor and financial aid counselor about the implications of that course of action. Ds, Fs, Ws, WFs and Is also negatively impact academic progression and financial aid status.

The Add/Drop Period is the first 5 days of the semester for **full term** classes. Add/Drop periods are shorter for accelerated format courses. Please refer to the [academic calendar](#) for deadlines for add/drop. You must attend at least one meeting of all of your classes during that period. If you do not, you will be dropped from the course(s) and your Financial Aid will be reduced accordingly.

## Part IV: Attendance

Horry-Georgetown Technical College maintains a general attendance policy requiring students to be present for a minimum of 80 percent (80%) of their classes in order to receive credit for any course. Due to the varied nature of courses taught at the college, some faculty may require up to 90 percent (90%) attendance. Pursuant to 34 Code of Federal Regulations 228.22 - Return to Title IV Funds, once a student has missed over 20% of the course or has missed two (2) consecutive weeks, the faculty is obligated to withdraw the student and a student may not be permitted to reenroll. **Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.**

## Part V: Student Resources



### THE STUDENT SUCCESS AND TUTORING CENTER (SSTC):

The SSTC offers to all students the following **free** resources:

1. **Academic tutors** for most subject areas, **Writing Center support**, and **college success skills**.
2. Online **tutoring** and academic support resources.
3. Professional and interpersonal communication **coaching** in the EPIC Labs.

Visit the [Student Success & Tutoring Center](#) website for more information. To schedule tutoring, contact the SSTC at [sstc@hgtc.edu](mailto:sstc@hgtc.edu) or self-schedule in the Penji iOS/Android app or at [www.penjiapp.com](http://www.penjiapp.com). Email [sstc@hgtc.edu](mailto:sstc@hgtc.edu) or call SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455, or go to the [Online Resource Center](#) to access on-demand resources.



## STUDENT INFORMATION CENTER: TECH Central

TECH Central offers to all students the following free resources:

1. **Getting around HGTC:** General information and guidance for enrollment, financial aid, registration, and payment plan support!
2. Use the [Online Resource Center \(ORC\)](#) including Office 365 support, password resets, and username information.
3. **In-person workshops, online tutorials and more services** are available in Desire2Learn, Student Portal, Degree Works, and Office 365.
4. **Chat with our staff on TECH Talk**, our live chat service. TECH Talk can be accessed on the student portal and on TECH Central's website, or by texting questions to (843) 375-8552.

Visit the [Tech Central](#) website for more information. Live Chat and Center locations are posted on the website. Or please call (843) 349 – TECH (8324), Option #1.



## HGTC LIBRARY:

Each campus location has a library where HGTC students, faculty, and staff may check out materials with their HGTC ID. All three HGTC campus libraries are equipped with computers to support academic research and related school work; printing is available as well. Visit the [Library](#) website for more information or call (843) 349-5268.

## STUDENT TESTING:

Testing in an **online/hybrid** course and in **make-up exam** situations may be accomplished in a variety of ways:

- Test administered within D2L
- Test administered in writing on paper
- Test administered through Publisher Platforms (which may have a fee associated with the usage)

Furthermore, tests may have time limits and/or require a proctor.

Proctoring can be accomplished either face-to-face at an approved site or online through our online proctoring service. To find out more about proctoring services, please visit the [Online Testing](#) section of the HGTC's Testing Center webpage.

The **Instructor Information Sheet** will have more details on test requirements for your course.



**DISABILITY SERVICES:**

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to HGTC's [Accessibility and Disability Service webpage](#). The Accessibility and Disability staff will review documentation of the student's disability and, in a confidential setting with the student, develop an educational accommodation plan.

Note: It is the student's responsibility to self-identify as needing accommodations and to provide acceptable documentation. After a student has self-identified and submitted documentation of a disability, accommodations may be determined, accepted, and provided.

**STATEMENT OF EQUAL OPPORTUNITY/NON-DISCRIMINATION STATEMENT:**

Horry-Georgetown Technical College prohibits discrimination and harassment, including sexual harassment and abuse, on the basis of race, color, sex, national or ethnic origin, age, religion, disability, marital or family status, veteran status, political ideas, sexual orientation, gender identity, or pregnancy, childbirth, or related medical conditions, including, but not limited to, lactation in educational programs and/or activities.

**TITLE IX REQUIREMENTS:**

All students (as well as other persons) at Horry-Georgetown Technical College are protected by Title IX—regardless of their sex, sexual orientation, gender identity, part- or full-time status, disability, race, or national origin—in all aspects of educational programs and activities. Any student, or other member of the college community, who believes that he/she is or has been a victim of sexual harassment or sexual violence may file a report with the college's Chief Student Services Officer, campus law enforcement, or with the college's Title IX Coordinator, or designee.

\*Faculty and Staff are required to report incidents to the Title IX Coordinators when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

**INQUIRIES REGARDING THE NON-DISCRIMINATION/TITLE IX POLICIES:**

All students (as well as other persons) at Horry-Georgetown Technical College are protected by Title IX—regardless of their sex, sexual orientation, gender identity, part- or full-time status, disability, race, or national origin—in all aspects of educational programs and activities. Any student, or other member of the college community, who believes that he/she is or has been a victim of sexual harassment or sexual violence may file a report with the college's Chief Student Services Officer, campus law enforcement, or with the college's Title IX Coordinator or designee.

\*Faculty and Staff are required to report incidents to the Title IX Coordinators when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

## **INQUIRIES REGARDING THE NON-DISCRIMINATION/TITLE IX POLICIES:**

**Student and prospective student** inquiries concerning Section 504, Title II, Title VII, and Title IX and their application to the College or any student decision may be directed to the Vice President for Student Affairs.

**Dr. Melissa Batten, VP Student Affairs**

*Title IX, Section 504, and Title II Coordinator*

Building 1100, Room 107A, Conway Campus

PO Box 261966, Conway, SC 29528-6066

843-349-5228

[Melissa.Batten@hgtc.edu](mailto:Melissa.Batten@hgtc.edu)

**Employee and applicant** inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Vice President for Human Resources.

**Jacquelyne Snyder, VP Human Resources**

*Affirmative Action/Equal Opportunity Officer and Title IX Coordinator*

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