

# **INSTRUCTIONAL PACKAGE**

# CPT 242 DATABASE

Effective Term Fall 2022/Spring 2023/Summer 2023

## **INSTRUCTIONAL PACKAGE**

## **Part I: Course Information**

Effective Term: Fall 2022

COURSE PREFIX: CPT 242 COURSE TITLE: Database

CONTACT HOURS: 5 CREDIT HOURS: 3

## **RATIONALE FOR THE COURSE:**

This course prepares students for entry level positions in planning, designing, creating, updating, maintaining and managing databases.

## **COURSE DESCRIPTION:**

This course introduces database models and the fundamentals of database design. Topics include database structure, database processing, and application programs which access a database.

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

Credit level CPT 187 Minimum Grade of C or Credit level CPT 187 Minimum Grade of TC DLi Orientation

\*Online/Hybrid courses require students to complete the <u>DLi Orientation Video</u> prior to enrolling in an online course.

## **REQUIRED MATERIALS:**

Please visit the <u>BOOKSTORE</u> online site for most current textbook information.

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

## **ADDITIONAL REQUIREMENTS:**

This class will require considerable time and effort outside of the regular class hours in order to successfully complete the project, labs, and exams.

USB Jump Drive

All assignments are due by the due date and time, no exceptions. If there is an issue with the student's home computer or the student does not have a home computer, the student must schedule time on campus in a computer lab to complete assignments until the student home computer is working properly.

## **TECHNICAL REQUIREMENTS:**

2022-2023

Access to Desire2Learn (D2L), HGTC's student portal for course materials. myHGTC and college email access. Web browser, Mozilla Firefox or Google Chrome are preferred

## **STUDENT IDENTIFICATION VERIFICATION:**

Students enrolled in online courses will be required to participate in a minimum of one (1) proctored assignment and/or one (1) virtual event to support student identification verification. Please refer to your Instructor Information Sheet for information regarding this requirement.

## **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.

**NETIQUETTE**: is the term commonly used to refer to conventions adopted by Internet users on the web, mailing lists, public forums, and in live chat focused on online communications etiquette. For more information regarding Netiquette expectations for distance learning courses, please visit <u>Online</u> <u>Netiquette.</u>

## **Part II: Student Learning Outcomes**

## **COURSE LEARNING OUTCOMES and ASSESSMENTS\*:**

- The student will explain the history, and characteristics of relational databases.
- The student will identify relevant entities and attributes for a database, Prepare interview questions and questionnaires. Analyze workflow for processes and exceptions.
- The student will identify the issues with the current database, define and list requirements, define business rules, identify entities and attributes, and identify candidate keys for entities.
- The student will use the database modeling template in Microsoft Visio, create entities and add attributes, determine the appropriate relationship between entities, resolve many- to- many relationships with a linking table.
- The student will evaluate an entity against the first three normal forms. Remove all repeating lists or arrays (first normal form), remove functional dependencies (second normal form), remove all transitive dependencies (third normal form), and explain the importance of design review.
- The student will compare database management systems and determine which best suits current needs, implement a physical design of the database based on the logical ERDS, choose appropriate data types for columns, and enter sample data into tables.
- The student will run SELECT queries with a variety of criteria, use the Aggregate functions COUNT, AVG, SUM, MIN, and MAX, date, time, and other built- in functions, join two or more tables in a query INSERT, UPDATE, and DELETE records, and use SQL to test business rules.
- The student will analyze security needs and restrictions for users of the database, analyze threats to database integrity, explain the concepts of authentication and authorization, create logins and users, and create roles upon complete of this unit.

#### **Required Course Measures/Artifacts**

- Exams
  - Exam 1 (Chapters 1-3)
  - Exam 2 (Chapters 4-6)
  - o Final Exam
- Practice Assignments for Chapters 1 8
- Projects for Chapters 1 8
- Quizzes for Chapters 1 8

\*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\***

| Exams                | 45%  |
|----------------------|------|
| Practice Assignments | 20%  |
| Projects             | 20%  |
| Quizzes              | 15%  |
| Total Points         | 100% |

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

## **GRADING SYSTEM:**

This course 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 <u>academic calendar</u> 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.** 

**For online and hybrid courses**, check your Instructor's Course Information Sheet for any required on-site meeting times. Please note, instructors may require tests to be taken at approved testing sites, and if you use a testing center other than those provided by HGTC, the center may charge a fee for its services.

## **Part V: Student Resources**



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

The SSTC offers to all students the following **<u>free</u>** 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 <u>Student Success & Tutoring Center</u> website for more information. To schedule tutoring, contact the SSTC at sstc@hgtc.edu or self-schedule in the Penji iOS/Android app or at <u>www.penjiapp.com</u>. Email <u>sstc@hgtc.edu</u> or call SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455, or go to the <u>Online Resource Center</u> to access on-demand resources.



## **STUDENT INFORMATION CENTER: TECH Central**

TECH Central offers to all students the following **<u>free</u>** resources:

- 1. **Getting around HGTC**: General information and guidance for enrollment, financial aid, registration, and payment plan support!
- 2. Use the <u>Online Resource Center (ORC)</u> 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 <u>Tech Central</u> website for more information. Live Chat and Center locations are posted on the website. Or please call (843) 349 – TECH (8324), Option #1.

## **STUDENT TESTING:**

Testing in an **online/hybrid** course may be accomplished in a variety of ways:

- Test administered within D2L
- Test administered in writing on paper
- Test administered through Publisher Platforms

Further more 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 <u>Online Testing</u> 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 <u>Accessibility and Disability Service webpage</u>. 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:**

**Student and prospective student** inquiries concerning Section 504, Title II, 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 Coordinator Building 1100, Room 107A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5228 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 EEO and Title IX Coordinator Building 200, Room 212A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5212 Jacquelyne.Snyder@hgtc.edu