Prepared by the Department of Business
Date of Departmental Approval: February 12, 2013
Date approved by Curriculum and Programs: February 13, 2013 Effective: Fall 2013

1. **Course Number**: GIT150
   Course Title: Database Applications

2. **Description**: Students acquire an in-depth, hands-on understanding of a PC-based relational database. Using Microsoft Access, the student creates and edits tables, forms, and reports; sort, query, and graph data; and attach, import and export data to/from other applications. Data normalization techniques are studied. Students, working individually and in teams, design and implement database applications. This course prepares students for the Microsoft Access User Specialist exam.

3. **Student Learning Outcomes (instructional objectives; intellectual skills**): Upon successful completion of this course, students are able to do the following:
   - Describe the components of a relational, PC-based database
   - Explain database use and importance in the workplace
   - Plan and design databases with an emphasis on data normalization
   - Create and modify data in tables
   - Modify field properties, field layout, and database presentation
   - Create, modify, and use forms to add, edit, and delete records, show related records, and modify controls
   - Present information in a chart
   - View information in a form or table and switch between views
   - Sort data on single and multiple fields
   - Find specific records
   - Create simple and multiple-criteria queries
   - Add and remove filters
   - Refine queries by adding and removing fields, sorting, and joining and removing tables
   - Analyze data with summary queries, calculated fields, and crosstab queries
   - Create subforms and add records with a main form and a subform
   - Merge two tables in a form
   - Identify data relationships and relate tables
   - Import and link data and pictures
   - Utilize web capability including building order forms and creating hyperlinks
   - Maintain data integrity by identifying integrity criteria, validating text, setting required properties and validation rules, using lookup fields, enforcing referential integrity, and using expressions in calculated controls
   - Modify and enhance form design for ease of use
   - Create, modify, and format reports using headers and footers, grouped data, calculated fields, labels, and custom pages
   - Print reports, forms, tables, and queries
   - Use macros, VBA, and the Switchboard Manager to create an application system

4. **Credits**: 3 credits

5. **Satisfies General Education Requirement**: No

6. **Prerequisites**: GIT108 or GIT110 or equivalent skill level in Windows

7. **Semesters Offered**: Fall, Spring

8. **Suggested General Guidelines for Evaluation:** Final grade will be based on a midterm examination, a final examination, homework assignments and a portfolio of project assignments.

9. **General Topical Outline (Optional):** The course includes database and related CIS careers, creating a database using design and datasheet views, data normalization, creating and using queries, maintaining and modifying a database, presenting data using forms and reports, enhancing forms using OLE field subforms, integration with other applications, and creating an application system using macros, VBA, and Switchboard Manager.