Syllabus

Course Number: HIM 455
Course Title: Database Planning Management

Course Description:
HIM455 provides the student with skills necessary to identify information needs and uses through the techniques of data flow analysis, data mapping and assessment of the continuum of data integrity. The course is designed to present a highly technical topic in a format accessible for non-information technology professionals. Topics include current industry trends and the impact on health information managers, technical elements of database structure and management, and components of a comprehensive information management plan, including database inventory, data dictionary, data integrity, and data security.

Prerequisite Courses:
CS 200 – Introduction to Computers or equivalent.

Course Outcomes:
Upon completion of this course, learners should be able to:

• Knowledge of current trends in health care delivery systems and the impact these trends will have on health information resource management.
• Database terminology and concepts.
• Components of an information resource management plan and steps required to implement the plan.
• The steps required to create a data dictionary.
• The requirements for data validation and data security.
• A conceptual understanding of relational concepts and the ability to apply them in the comprehension of a data system.
• The ability to produce an entity-relationship diagram, data dictionary, and process description for a business activity.
• An understanding of the relational database and the methods used to extract desired data using Standard Query Language or a proprietary query method as applicable.

Required Texts:
Pre-Assignment:

**Online Format:** Sign on to D2L (Home Page) and become familiar with the course navigation of the Web Curriculum.

**Pre-Assignment Due Dates:**

**Online Format:** The instructor will specify the due date for this assignment.

### Course Assignments and Activities:

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<thead>
<tr>
<th></th>
<th>Topics</th>
<th>Readings</th>
<th>Activities Assignments and Associated Points</th>
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</thead>
</table>
| 1 | The Principles of Information Resource Management | Health Information: Ch 4 Database Design: Ch 5 Lecture Materials | Week 1 Discussion: IRM Principles (10)  
Post Introduction to Discussion board  
EPB Assignment 1: Define the Objectives/MPI Objectives (25) |
| 2 | Fundamentals of Relational Database Design   | Database Design: Ch 1-3 Lecture Materials     | Week 2 Discussion: Data Design (15)  
EPB Assignment 2: Research and Data Definition (25) |
| 3 | Data Analysis and Design                    | Health Information: Ch 9 Database Design: Ch 4, 11 Lecture Materials | Week 3 Discussion (15)  
EPB Assignment 3: Data & Relationship Mapping (25) |
| 4 | Analyzing Healthcare Data                  | Health Information: Ch 5 Database Design: Ch 6 Lecture Materials | Week 4 Discussion: Data Dictionary (15)  
Exam 1 (50) |
| 5 | Data Types and Description                 | Health Information: Ch 6 Database Design: Ch 7-9 Lecture Materials | Week 5 Discussion: Data Element Standards (15)  
EPB Assignment 4: Data Type Definition (25)  
HL7 Paper (25) |
| 6 | Data Quality                               | Health Information: Ch 6 Database Design: Ch 7-9 Lecture Materials | Week 6 Discussion: Business Rules (15)  
EPB Assignment 5: Business Rules (25) |
| 7 | The Information Resource Management Plan   | Information Resource Management Plan Instructions | Week 7 Discussion (15)  
IRM Plan (50) |
Course Policies and Procedures:

Health Information Management Domains:

This course contains the following domains, subdomains, and tasks recommended in the accreditation guidelines of the American Health Information Management Association.

**Domain I. Health Data Management**
Subdomain I.A: Health Data Structure, Content and Standards
I.A.4. Monitor use of clinical vocabularies and terminologies used in the organization’s health information systems.

**Domain III. Health Services Organization and Delivery**
Subdomain III.A: Healthcare Delivery Systems
III.A.3. Analyze and respond to the information needs to internal and external customers throughout the continuum of healthcare services.
Subdomain III.B: Healthcare Privacy, Confidentiality, Legal and Ethical Issues
III.B.6. Apply and promote ethical standards of practice.

**IV. Domain: Information Technology & Systems**
Subdomain IV.A: Information and Communication Technologies
IV.A.1. Implement and manage use of technology, including hardware and software, to ensure data collection, storage, analysis and reporting information.
IV.A.2. Contribute to the development of networks, including intranet and internet applications to facilitate the electronic health record (HER), personal health record, public health and other administrative applications.
IV.A.3. Interpret the derivation and use of standards to achieve interoperability of healthcare information systems.
Subdomain IV.B: Data, Information, and File Structures
IV.B.1. Apply knowledge of data base architecture and design (such as data dictionary, data modeling, data warehousing etc.) to meet organizational needs.
Subdomain IV.C
IV.C.1. Apply appropriate electronic or imaging technology for data/record storage.
IV.C.2. Apply knowledge of database querying and data mining techniques to facilitate information retrieval.
IV.C.3. Implement and manage knowledge-based applications to meet end-user information.
Subdomain IV.D: Data Security
IV.D.1. Enforce confidentiality and security measures to protect electronic health information.
IV.D.2. Protect data integrity and validity using software or hardware technology.
IV.D.3. Implement and monitor department and organizational data and information system security policies.
IV.D.4. Recommend elements that must be included in the design of audit trail and data quality monitoring programs.
IV.D.5. Recommend elements that should be included in the design and implementation of risk assessment, contingency planning, and data recovery procedures.

Subdomain IV.E: Health Care Information Systems
IV.E.1. Compare and contrast the various clinical, administrative, and specialty service applications used in healthcare organizations.
IV.E.2. Apply appropriate systems life cycle concepts, including systems analysis, design, implementation, evaluation and maintenance to the selection of healthcare information systems.
IV.E.4. Formulate planning, design, selection, implementation, integration, testing, evaluation, and support for organization-wide information systems.
IV.E.5. Apply ergonomic and human factors in interface design.

CC&IS Grading Scale

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Percentage</th>
<th>Grade Point</th>
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<tbody>
<tr>
<td>A</td>
<td>93 to 100</td>
<td>4.00</td>
</tr>
<tr>
<td>A–</td>
<td>90 to less than 93</td>
<td>3.67</td>
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<tr>
<td>B+</td>
<td>87 to less than 90</td>
<td>3.33</td>
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<tr>
<td>B</td>
<td>83 to less than 87</td>
<td>3.00</td>
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<tr>
<td>B–</td>
<td>80 to less than 83</td>
<td>2.67</td>
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<tr>
<td>C+</td>
<td>77 to less than 80</td>
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<tr>
<td>C</td>
<td>73 to less than 77</td>
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<tr>
<td>C–</td>
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<tr>
<td>D+</td>
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<tr>
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Additional information about grading can be found in the latest edition of the University Catalog, available at http://www.regis.edu/Academics/Course%20Catalog.aspx.

CC&IS Policies and Procedures

Each of the following CC&IS Policies & Procedures is incorporated here by reference. Students are expected to review this information each term, and agree to the policies and procedures as identified here and specified in the latest edition of the University Catalog, available at http://www.regis.edu/Academics/Course%20Catalog.aspx or at the link provided.

- The CC&IS Academic Integrity Policy.
- The Student Honor Code and Student Standards of Conduct.
- Incomplete Grade Policy, Pass / No Pass Grades, Grade Reports.
• The Information Privacy policy and FERPA. For more information regarding FERPA, visit the [U.S. Department of Education](http://www.ed.gov).

• The HIPPA policies for protected health information. The complete Regis University HIPAA Privacy & Security policy can be found here: [http://www.regis.edu/About-Regis-University/University-Offices-and-Services/Auxiliary-Business/HIPAA.aspx](http://www.regis.edu/About-Regis-University/University-Offices-and-Services/Auxiliary-Business/HIPAA.aspx).


The CC&IS Policies & Procedures Syllabus Addendum summarizes additional important policies including, Diversity, Equal Access, Disability Services, and Attendance & Participation that apply to every course offered by the College of Computer & Information Sciences at Regis University. A copy of the CC&IS Policies & Procedures Syllabus Addendum can be found here: [https://in2.regis.edu/sites/ccis/policies/Repository/CCIS%20Syllabus%20Addendum.docx](https://in2.regis.edu/sites/ccis/policies/Repository/CCIS%20Syllabus%20Addendum.docx).