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| **PROFESSOR:**  Deborah Howard, M.Ed., RHIA, CCS | **PHONE NUMBER:**  239-489-9419 |
| **OFFICE LOCATION:**  A-112 | **E-MAIL:**  Deborah.Howard@fsw.edu |
| **OFFICE HOURS:**  M-Th 2-5 pm | **SEMESTER:**  Fall 2019 |

1. **COURSE NUMBER AND TITLE, CATALOG DESCRIPTION, CREDITS:**

**HIM 2214 HEALTH DATA MANAGEMENT (3 CREDITS)**

Presentation of basic health care statistics to provide the student with an understanding of the terms, definitions, formulas and software used in computing and presenting health care statistics.

1. **PREREQUISITES FOR THIS COURSE:**

HIM 1000, MAC 1105 or STA 2323, and CGS 1100 all with a grade of C or higher

**CO-REQUISITES FOR THIS COURSE:**

None

1. **GENERAL COURSE INFORMATION:** Topic Outline.

* Unit I: Introduction
* Statistical Terminology and Health Care Data
* Health Care Overview and Patient Data Collection
* Mathematical Review
* Unit II: Hospital Statistics
  + Census
  + Percent of Occupancy
  + Length of Stay/Discharge Days
  + Mortality Rates
  + Obstetrical-Related Rates
  + Autopsy Rates
  + Miscellaneous Rates
* Unit III: Other Data
  + Vital Statistics Data/Rates
  + Frequency Distribution
  + Measures of Central Tendency
  + Data Presentation

1. **All courses at Florida SouthWestern State College contribute to the general education program by meeting one or more of the following general education competencies:**

**C**ommunicate clearly in a variety of modes and media.

**R**esearch and examine academic and non-academic information, resources, and evidence.

**E**valuate and utilize mathematical principles, technology, scientific and quantitative data.

**A**nalyze and create individual and collaborative works of art, literature, and performance.

**T**hink critically about questions to yield meaning and value.

**I**nvestigate and engage in the transdisciplinary applications of research, learning, and knowledge.

**V**isualize and engage the world from different historical, social, religious, and cultural approaches.

**E**ngage meanings of active citizenship in one’s community, nation, and the world.

**A.**  **General Education Competencies and Course Outcomes**

1. Listed here are the course outcomes/objectives assessed in this course which play an integral part in contributing to the student’s general education along with the general education competency it supports.

General Education Competency: **Think**

Course Outcomes or Objectives Supporting the General Education Competency Selected:

* Utilize basic descriptive, institutional, and healthcare statistics

**B. Other Course Objectives/Standards**

* Define terms used in healthcare formulae
* Compute common healthcare statistics
* Interpret statistical data in reports
* Utilize computer software packages to graphically display data
* Analyze data to identify trends
* Explain common research methodologies and why they are used in healthcare
* Explain the role of the Institutional Review Board (IRB) in research in healthcare facilities
* Apply ethical guidelines in the use of statistics
* Calculate common statistics used in the management of an HIM department
* Differentiate between tables and graphs
* Create tables and graphs to display statistical information
* Prepare the basic elements of a report
* Compare and contrast among the three types of data analytics
* Determine how data analytics is used in making healthcare decisions

1. **DISTRICT-WIDE POLICIES:**

**Programs for Students with Disabilities**

Florida SouthWestern State College, in accordance with the Americans with Disabilities Act and the College’s guiding principles, offers students with documented disabilities programs to equalize access to the educational process. Students needing to request an accommodation in this class due to a disability, or who suspect that their academic performance is affected by a disability should contact the Office of Adaptive Services at the nearest campus. The office locations and telephone numbers for the Office of Adaptive Services at each campus can be found at <http://www.fsw.edu/adaptiveservices>.

**REPORTING TITLE IX VIOLATIONS**

Florida SouthWestern State College, in accordance with Title IX and the Violence Against Women Act, has established a set of procedures for reporting and investigating Title IX violations including sexual misconduct.  Students who need to report an incident or need to receive support regarding an incident should contact the Equity Officer at [equity@fsw.edu](mailto:equity@fsw.edu).  Incoming students are encouraged to participate in the Sexual Violence Prevention training offered online.  Additional information and resources can be found on the College’s website at <http://www.fsw.edu/sexualassault>.

1. **REQUIREMENTS FOR THE STUDENTS:**

* Learning methodologies include reading, group discussions, case studies, lab assignments, writing assignments and tests.
* **PREPARATION**
  + Students are expected to complete the assigned reading prior to class as indicated.
    - Students are expected to be able to discuss information contained in the assigned readings.
    - In addition, chapter lab assignments will be given each week and checked for completion.
* All assignments must be submitted in Microsoft Word.
  + Any assignments submitted in rich text, Word Perfect, Word Pad, or any other format will not be accepted and will be returned ungraded.
* **Correct English Composition** is expected on all assignments, discussions, posts, and presentations. ***A deduction of 25% will be made for English composition errors.*** Students will need to make corrections and resubmit the assignment if a better grade is desired. The Writing Center in Academic Support provides assistance with writing skills. Students are expected to seek out the assistance of The Writing Center services if help is needed relative to English composition skills. <http://www.fsw.edu/academicsupport/gethelp/1>
* **TurnItIn.com** will be utilized on various assignments to check for originality of the composition. A TurnItIn similarity score of greater than 24% will result in the paper being returned to the student for correction and revision. Overutilization of quotations is not acceptable. Originality in written composition is an important skill for students to demonstrate in the collegiate setting.
* **LATE SUBMITTALS.** 
  + **No work will be accepted past the due date unless there is documented proof of an extraordinary event outside of the control of the student.**  In this event, it is the decision of the professor as to how much time, if any, will be allowed to complete the late assignments.
  + **Students failing to complete all required assignments and examinations will not receive credit for the course and will receive a grade of “F”.**
* **ACADEMIC INTGEGRITY**
  + Students are expected to know and abide by the FSW Academic Integrity policy.
  + Students are expected to complete their own work without copying from someone else.
  + Assignments are to be completed individually unless group work has been specifically permitted by the instructor.
* **SOCIAL MEDIA POLICY**
  + Social Media Conduct Agreement Policy
    - Health Information Technology and Medical Information Coding and Billing students will sign an agreement that acknowledges their commitment to the standards of a professional to maintain the privacy of patient, peer, faculty and other clinical information as required by HIPAA and other privacy requirements.
    - By signing this form, the student agrees not to post or discuss any clinical experience or information regarding their experiences with any clinical agency, its staff, or its patients on any online form (including but not limited to: email, websites, message boards, blogs, or social networking websites).

1. **ATTENDANCE POLICY:**

* Attendance is taken each week.

o Students are responsible for obtaining missed lecture information due to absence.

o Absences totaling more than three sessions will result in a failing grade.

* + Students are expected to be present and ready to begin on time. Arriving late to class is rude, selfish and disruptive to others. Tardiness is not an acceptable behavior for a healthcare professional and will not be tolerated in HIM courses. Tardiness is defined as arriving after the start of the class session. Points will be deducted from the final grade in the course based upon the following scale:

• 0-1 Tardy 0 Points deducted

• 2 Tardies 5 Points deducted

• 3 Tardies 10 Points deducted

• 4 Tardies 20 Points deducted

• 5 Tardies 40 Points deducted

1. **GRADING POLICY:**

Assignments 20%

Chapter Tests 30%

Unit Exams 20%

Database Project and Presentation 30%

90 - 100 = A

80 - 89 = B

70 - 79 = C

60 - 69 = D

Below 60 = F

Due dates as specified in the Class Schedule are to be followed.

***All required components must be completed in order to receive a final grade in this course.***

***Failure/refusal to give required presentations will result in a final grade of F.***

**Academic Dishonesty (Cheating)** is defined as completing written assignments, quizzes or exams with unauthorized electronic, written or verbal assistance.  It is also defined as providing unauthorized electronic written or verbal assistance to another student during a required assignment, quiz or exam.  Academic dishonesty is unacceptable behavior.  This behavior is subject to sanctions ranging from complete loss of credit on a required assignment, quiz or exam to dismissal from the Health Information Technology or Medical Information Coding and Billing program.

* All work is to be completed solely and independently by the student.
* Inclusion of facts, ideas, quotes, or other materials from outside sources must be cited and referenced in all work. Failure to cite references may constitute plagiarism.
* Evidence of cheating and plagiarism are cause for disciplinary action by Florida Southwestern State College.
* According to Florida Southwestern State College, plagiarism and cheating refer to
  + the use of unauthorized books, notes,
  + using the copy and paste function,
  + or otherwise securing help in a test;
  + copying tests, assignments, reports, or term papers;
  + representing the work of another person as one's own;
  + collaborating without authority with another student during an examination or in preparing academic work,
  + or otherwise practicing academic dishonesty.

                Students agree by taking the course that all required papers may be subject to submission for textual similarity review by Turnitin.com for the detection of plagiarism.  All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers.  Use of the Turnitin.com service is subject to the Terms and Conditions of Use posted on the Turnitin.com site.

**Zero-Tolerance Policy**:  Florida Southwestern State College maintains a zero tolerance policy for academic dishonesty.  Any student found in violation of the academic integrity policy will be subject to sanctions, which may include receiving a grade of "F" in this course.  Any School of Health Profession student that receives a grade of "F" for academic dishonesty in any course may be permanently dismissed from the program they are enrolled in.

1. **REQUIRED COURSE MATERIALS:**

Davis, Nadinia and Shiland, Betsy, (2017), *Statistics and data analytics for health data management.*

St. Louis, Mo.; Elsevier

Microsoft Office including MS Access software

AHIMA V-Lab Access

1. **RESERVED MATERIALS FOR THE COURSE:**

**None**

1. **CLASS SCHEDULE:**

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| **DATE** | **LESSON** | **HOMEWORK** | **DUE DATE** |
| Week 1  8/19 | Course Overview and Introduction  Database Project Overview   * Requirements * Selection of State * Review of MS Access Database Tutorials   Chapter 1  Introduction to Statistical Terms and Concepts in Health Data Management   * Numbers at Work   + Definitions and Significance   + Data and Data Analytics   + Uses and Users of Health Care Data * Types of Statistics * Health Care Data Classifications   + Qualitative Data   + Quantitative Data * Obtaining and Comparing Health Care Data | Discussion: Using Health Data to Change Behavior  The Data Pyramid  Data Types  Data Sets  Data in the ER  Chapter 1 Review  Chapter 1 Test  Read Chapter 2 | 8/25 |
| Week 2  8/26 | Chapter 2  Basic Math Concepts, Central Tendency, and Dispersion   * Fractions, Decimals, and Percentages * Ratio, Rate and Proportion * Volume, Frequency, and Frequency Distribution * Measures of Central Tendency   + Mean   + Median   + Mode   + Adjusted Mean * Dispersion   + Interquartile Range   + Variance   + Standard Deviation | Worksheet #1  Fractions, Decimals,  Percentage, Rate, Ratio and  Proportion  Worksheet #2  Volume, Frequency,  Frequency Distribution, Measures of Central Tendency  Chapter 2 Review  Chapter 2 Test  Read Chapter 3 | 9/1 |
| Week 3  9/2 | LABOR DAY HOLIDAY – NO CLASS |  | 9/8 |
| Week 4  9/9 | Chapter 3  Data Presentation   * Tables   + Design, Components, and Rules * Graphs and Charts   + Line Graphs   + Scatter Diagrams   + Bar Charts and Bar Graphs   + Histograms   + Pie Charts   + Pictograms | Worksheet #1  Create a Pivot Chart, bar chart and histogram  Worksheet #2  Analyze a Chart  Chapter 3 Review  Chapter 3 Test  Study for Unit I Exam | 9/15 |
| Week 5  9/16 | Unit I Exam  Chapters 1-3 | Read Chapter 4 | 9/22 |
| Week 6  9/23 | Chapter 4  Administrative Data   * Outpatient Statistics   + Patient Encounters * Inpatient Statistics   + Beds and Bed Count   + Inpatient Census   + Occupancy   + Length of Stay   + Bed Turnover Rate | Worksheet #1  Calculate Occupancy Rates  Worksheet #2  Calculate Occupancy Rates  Chapter 4 Review  Chapter 4 Test  Read Chapter 5 | 9/29 |
| Week 7  9/30 | Chapter 5  Clinical Facility Data   * Morbidity Rates   + Measuring Complications   + Measuring Health Care Associated Infections (HAIs) * Consultation Rate * Obstetric Rates   + C-Section Rates   + Maternal Mortality Rate   + Newborn Mortality Rate   + Neonatal Mortality Rate * Mortality Rates   + Measuring Gross and Net Mortality Rates   + Surgical Mortality Rates * Autopsy Rates | Worksheet #1  Calculate Mortality Rates  Worksheet #2  Calculate Mortality Rates  Chapter 5 Review  Chapter 5 Test  Read Chapter 6 | 10/6 |
| Week 8  10/7 | Chapter 6  Public Health Data   * Types of Rates and Differences in Constants * Natality Data   + Birth and Obstetrical Rate Formulas * Mortality Statistics   + Mortality Rate Formulas   + Maternal, Fetal, and Infant Mortality * Morbidity Data | Worksheet #1  Calculating Incidence and Prevalence  Worksheet #2  Calculate Incidence and Prevalence  Worksheet #3  Calculate Incidence and Prevalence  Chapter 6 Review  Chapter 6 Test  Read Chapter 7 | 10/13 |
| Week 9  10/14 | Chapter 7  Departmental Data   * Measures of Productivity   + Transcription   + Coding   + Document Imaging   + Release of Information * Reimbursement Statistics   + Prospective Payment System   + Case Mix Index * Compliance Statistics | Worksheet #1  Calculate Work Hours  Worksheet #2  Calculate DRG Payment  Worksheet #3  Calculate DRG Payment  Worksheet #4  Calculate Case Mix Index  Worksheet #5  Calculate Case Mix Index  Chapter 7 Review  Chapter 7 Test | 10/20 |
| Week 10  10/21 | Chapter 8  Financial Data   * Budgeting Overview * Capital Budget   + Payback Period   + Return on Investment   + Renting or Leasing Equipment * Operational Budget   + Variance | Worksheet #1  Calculate Payback Period  Worksheet #2  Calculate Return on Investment  Worksheet #3  Budget Calculations  Chapter 8 Review  Chapter 8 Test  Study for Unit II Exam | 10/27 |
| Week 11  10/28 | Unit II Exam  Chapters 4-8 |  | 11/3 |
| Week 12  11/4 | Database Project Work Day  Finalize Access Database  Enter Data from 25 IP Charts | Continue Data Abstracting | 11/17 |
| Week 13  11/11 | VETERANS DAY HOLIDAY – NO CLASS | Continue Data Abstracting  Read Chapter 9 |  |
| Week 14  11/18 | Chapter 9  Scrubbing and Mapping Data   * Introduction * Data Quality * Data Scrubbing   + Data Constraints and Harmonization * Data Mapping | Worksheet #1  Data Quality Analysis  Worksheet #2  Data Mapping Analysis  Chapter 9 Review  Chapter 9 Test  Read Chapter 10 | 11/24 |
| Week 15  11/25 | Chapter 10  Predicting Data   * Introduction * Populations and Samples * Probability   + Central Limit Theorem   + Standard Error   + Confidence Levels and Confidence Intervals * Hypothesis Testing   + Type I and Type II Errors | Worksheet #1  Sampling for Study Case Selection  Chapter 10 Review  Chapter 10 Test  Study for Unit III Exam | 12/1 |
| Week 16  12/2 | **Unit III Exam**  **Chapters 9 and 10** | **Finish Project Presentation** | 12/8 |
| Week 17  12/9 | **Database Project Presentations** |  |  |

1. **ANY OTHER INFORMATION OR CLASS PROCEDURES OR POLICIES:**
   1. Classroom courtesy is expected of all students.
      1. No talking or whispering while others are presenting material to the class. Be attentive to the information being presented.
      2. Issues or concerns regarding the course are to be discussed with the instructor for resolution after class or during office hours.
   2. Cell phones are to be off or on vibrate during class.
   3. Computers are to be off during lecture or class activities unless needed to complete the in-class assignment…no surfing, chatting, e-mailing, etc.
   4. Instructor reserves the right to modify the syllabus as needed.

AHIMA 2014 Domains Addressed in this Course

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| **Domain I. Data Content Structure and Standards** |
| *DEFINITION: Academic content related to diagnostic and procedural classification and terminologies; health record documentation requirements; characteristics of the healthcare system; data accuracy and integrity; data integration and interoperability; respond to customer data needs; data management policies and procedures; information standards.* |
| **Subdomain I.D. Data Management** |
| 1. Collect and maintain health data |
| 2. Apply graphical tools for data presentations |
| **Subdomain I.E. Secondary Data Sources** |
| 1. Identify and use secondary data sources |
| 2. Validate the reliability and accuracy of secondary data sources |
| **Domain III. Informatics, Analytics and Data Use** |
| *Definition: Creation and use of Business health intelligence; select, implement, use and manage technology solutions; system and data architecture; interface considerations; information management planning; data modeling; system testing; technology benefit realization; analytics and decision support; data visualization techniques; trend analysis; administrative reports; descriptive, inferential and advanced statistical protocols and analysis; IRB; research; patient-centered health information technologies; health information exchange; data quality* |
| **Subdomain III.B. Information Management Strategic Planning** |
| 2. 2. Utilize health information to support enterprise wide decision support for strategic planning |
| **Subdomain III.C. Analytics and Decision Support** |
| 1. 1. Explain analytics and decision support |
| 2. 2. Apply report generation technologies to facilitate decision-making |
| **Subdomain III.D. Health Care Statistics** |
| 1. 1. Utilize basic descriptive, institutional, and healthcare statistics |
| 2. 2. Analyze data to identify trends |
| **Subdomain III.E. Research Methods** |
| 1. 1. Explain common research methodologies and why they are used in healthcare |
| **Subdomain III.H. Information Integrity and Data Quality** |
| 1. 1. Apply policies and procedures to ensure the accuracy and integrity of health data both internal and external to the health system |
| **Domain V. Compliance** |
| *Definition: COMPLIANCE activities and methods for all health information topics. For example, how to comply with HIPAA, Stark Laws, Fraud and Abuse, etc.; coding auditing; severity of illness; data analytics; fraud surveillance; clinical documentation improvement.* |
| **Subdomain V.C. Fraud Surveillance** |
| 1. 1. Identify potential abuse or fraudulent trends through data analysis |
| **Domain VI. Leadership** |
| *Definition: Leadership models, theories, and skills; critical thinking; change management; workflow analysis, design, tools and techniques; human resource management; training and development theory and process; strategic planning; financial management; ethics and project management* |
| **Subdomain VI.D. Human Resources Management** |
| 1. Report staffing levels and productivity standards for health information functions |
| **Subdomain VI.F. Strategic and Organizational Management** |
| 1. 1. Summarize a collection methodology for data to guide strategic and organizational management |

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| 4. Apply information and data strategies in support of information governance initiatives |
| **Subdomain VI.G. Financial Management** |
| 1. Plan budgets |
| 2. Explain accounting methodologies |
| 3. Explain budget variances |
| **Subdomain VI.K. Enterprise Information Management** |
| 1. Apply knowledge of database architecture and design |