Fall 2017

**HSPM 7335 - Healthcare Operations Management**

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Georgia Southern University
Jiann-Ping Hsu College of Public Health
HSPM 7335: Healthcare Operations Management
Fall 2017

Prerequisites: None.

Catalog Description: This course examines operational issues in health care management. Topics include systems analysis, continuous quality improvement and re-engineering, demand forecasting, facility location and design models, decision analysis techniques, linear programming, queuing and waiting models, inventory control models, and statistical quality control. The goal is to instill an understanding of the language, applications, and limitations of quantitative models with regard to decision-making and problem solving in health care organizations.


**JPHCOPH (College Level) Student Learning Outcomes:** At the completion of the M.H.A. degree program all students will be able to understand and apply concepts concerning:

1. Demonstrate proficiency and effectiveness in the communication of core public health principles and practices, both oral and written.
2. Demonstrate proficiency in the integration of the core public health disciplines (Biostats, Epid, Env Health, Hlth Policy/Mgt, & Social/Behav Sc) in practice & research.
3. Demonstrate proficiency in problem solving, critical thinking, and public health leadership.

**Health Policy and Management (Departmental Level) Student Learning Outcomes:** At the completion of the M.H.A. degree program all students will be able to understand and apply concepts concerning:

I. Analyze and evaluate the financial management of health organizations including structuring, marketing, and governance.
II. Evaluate the management of change in health organizations.
III. Conduct and interpret relevant health administration research using appropriate research designs and analytic techniques.
IV. Communicate health services administration principles and concepts to lay and professional audiences through both oral and written communication.

**Program Competencies:** At the completion of the M.H.A. degree program all students will be able to (domains are listed first and competencies under each domain follow; established 2015):

I. **COMPETENCY DOMAINS**

   A. **Measurement and Analysis**
      Measurement: Identify information needs, and gather and understand relevant data information in order to define a problem, to assess a situation, or to implement a set of metrics.
      Analysis: Organize, manipulate and use information to assess performance, to identify alternative courses of action, to investigate hypotheses, or to accomplish other strategic goals.

   B. **Communication**
      Receive and convey information in ways that encourage continued dialogue among stakeholders. Effective communication involves strong written and oral transmission skills, responsive listening, and use of creative strategies for exchanging information.

   C. **Leadership**
      Influence others to reach their highest level of effectiveness in achieving common goals, both as individuals and in teams. Establish direction and engage various constituencies to produce a shared vision of the future, motivating and committing them to action, and making them responsible for their performance.

   D. **Law and Ethics**
      Establish high ethical standards, create a culture of shared ethical values and legal understanding, and transform those ideals into visions and expected behaviors.

   E. **Professional Development**
      Required to excel professionally throughout one’s career and to make meaningful contributions to the field.
II. COMPETENCIES BY DOMAINS

Domain 1: Measurement and Analysis

Measurement:
A.1 Identify appropriate sources and gather information, effectively and efficiently.
A.2 Appraise literature and data critically.
A.3 Develop, understand and use data from performance, surveillance or monitoring systems.

Analysis:
A.4 Financial analysis: Understand and explain financial and statement; prepare and manage budgets; and make sound long-term investment decisions.
A.5 Statistical analysis: Understand and apply basic statistical methods relevant to public health practice.
A.6 Policy analysis: Understand the policy-making process and the role of politics; assess a problem and identify and compare potential policy solutions; and understand and critically assess methods to evaluate policy impact.
A.7 Economic analysis: Use basic microeconomic theory to understand how the incentives of consumers, providers, and payers affect behaviors, costs, and other outcomes; understand and apply basic econometric tools for the empirical study of issues in health economics.
A.8 Operational analysis: Analyze, design, or improve an organizational process, including the use of quality management, process improvement, marketing and information technology principles and tools.
A.9 Population health assessment: Understand and apply basic epidemiologic principles, measures, and methods to assess the health status of a population; identify risk factors in individuals and communities; evaluate the impact of population-based interventions and initiatives.
A.10 Decision Making: Implement a decision-making process that incorporates evidence from a broad analysis that includes uncertainty, risk, stakeholders, and organizational values.

Domain 2: Communication

B.1 Convey: Speak and write in a clear, logical, and grammatical manner in formal and informal situations; prepare cogent business presentations; facilitate an effective group process.
B.2 Listen: Receive, process, and respond appropriately to information conveyed by others.
B.3 Interact: Perceive and respond appropriately to the spoken, unspoken, or partly expressed thoughts, feelings, and concerns of others.
Domain 3: Leadership
C.1 Organizational Vision: Through effective governance, establish an organization's values, vision, and mission; systematically enhance performance and human material and knowledge resources.

C.2 Strategic Orientation: Analyze the business, demographic, ethno-cultural, political, and regulatory implications of decisions and develop strategies that continually improve the long-term success and viability of the organization.

C.3 Accountability: Hold self and others accountable to standards of performance; encourage commitment to the long-term good of the organization.

C.4 Change Leadership: Energize stakeholders and sustain their commitment to the organization while adapting to changes in the environment.

C.5 Collaboration: Work collaboratively with others as part of a team or group, demonstrating commitment to the team's goal and encouraging individuals to put forth their best effort.

C.6 Organizational awareness: Understand and learn from governance structures, formal and informal decision making structures, and power relationships in an organization, industry, or community.

Domain 4: Law and Ethics
D.1 Use legal reasoning as a tool for analysis, communication, strategy and planning. Behave ethically and promote standards of ethical behavior throughout organizations and professional communities.

D.2 Behave ethically and promote standards of ethical behavior throughout organizations and professional communities.

D.3 Develop an understanding of healthcare state and federal legislation as it affects healthcare organizations.

Domain 5: Professional Development
Self-Awareness:
E.1 Actively seek feedback from others, reflecting and learning from successes and failures.
E.2 Develop an accurate view of own strengths and developmental needs, including the impact one has on others.

Self-Development:
E.3 Continuously push self to raise personal standards of performance and exceed expectations. Address knowledge, skills, and other developmental gaps through effective, self-directed learning, and by trying new approaches.
E.4 Establish, build, and sustain a career plan for professional development.
E.5 Establish, build, and sustain a career plan for professional development.
**Learning Objectives:** At the completion of this course the student will be able to:

1. Explain OM concepts and techniques (A8)
2. Use Excel to support various types of operations management and financial analyses (E4, A8)
3. Discern the operations management technique that is most appropriate for a given situation and understand the application of it (A8)
4. Apply operations management techniques, including: optimization, decision trees, lean/six sigma, modeling and simulation, financial modeling, in support of an organization’s strategy (A3, A5, A8, A10, C2)
5. Apply the principles of project management to implement performance improvement and other projects (A8)
6. Assess a problem with an organization’s current operations and propose a cogent strategy to address it (C5, B1)
7. Contribute meaningfully in discussions of healthcare operations management issues by finding relevant research, presenting it, and discussing its relevance to course topics (B1, B2, B3)

**Content to be Covered During the Semester:**

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Text Readings</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15-Aug-17 17-Aug-17</td>
<td>Introduction Healthcare: Past, Present, Future</td>
<td>Chapter 1</td>
</tr>
<tr>
<td>2</td>
<td>22-Aug-17</td>
<td>Simulation: <em>Friday Night at the ER</em></td>
<td>Chapter 1</td>
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<td></td>
<td>29-Aug-17 31-Aug-17</td>
<td>Introduction to Flow Strategy</td>
<td>Materials Provided</td>
</tr>
<tr>
<td>3</td>
<td>5-Sep-17 7-Sep-17</td>
<td>Project Management Project Management</td>
<td>Ch 3 (excl. p.98-106)</td>
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<tr>
<td>4</td>
<td>12-Sep-17 14-Sep-17</td>
<td>Quality Management Quality Management</td>
<td>Chapter 4</td>
</tr>
<tr>
<td>5</td>
<td>19-Sep-17 21-Sep-17</td>
<td>Statistical Process Control Statistical Process Control</td>
<td>Chapter 5</td>
</tr>
<tr>
<td>6</td>
<td>26-Sep-17 28-Sep-17</td>
<td>Statistical Process Control Six Sigma &amp; Lean</td>
<td>Chapter 5</td>
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<tr>
<td>7</td>
<td>3-Oct-17 5-Oct-17</td>
<td>Six Sigma &amp; Lean MID-TERM</td>
<td>Chapter 6</td>
</tr>
</tbody>
</table>
** Class in IT Building Room 3204

*Readings found in Folio Classroom

** In Building a Better U, complete the following Excel 2016 modules. Provide grade reports:

**Essentials:** 1) Charts, Tables, & Images, 2) Formulas and Functions, 3) Data Presentation Strategies, 4) Formatting Data, and 5) Creating, Editing, & Saving Workbooks

**Intermediate:** 1) PivotTables & Advanced Charts, and 2) Working With Data

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Text Readings</th>
<th>Assignment</th>
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<tbody>
<tr>
<td>9</td>
<td>Process Analysis &amp; Design</td>
<td>Chapter 7</td>
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<tr>
<td></td>
<td>Process Analysis &amp; Design</td>
<td>Chapter 7</td>
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<tr>
<td>10</td>
<td>Capacity &amp; Demand (Queueing &amp; Simulation)</td>
<td>Chapter 8</td>
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<td></td>
<td>Scheduling</td>
<td>Chapter 8</td>
<td>-Homework 4</td>
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<tr>
<td>11</td>
<td>Scheduling</td>
<td>Chapter 9</td>
<td></td>
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<tr>
<td></td>
<td>Forecasting Demand</td>
<td>Chapter 9</td>
<td>-Homework 4</td>
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<tr>
<td></td>
<td>Forecasting Demand</td>
<td>Chapter 10</td>
<td>-Homework 5</td>
</tr>
<tr>
<td>13</td>
<td>Forecasting Demand</td>
<td>Chapter 10</td>
<td>-Read Porter &amp; Lee. (2013). *</td>
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<tr>
<td></td>
<td>Cost</td>
<td>Chapter 12</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Cost</td>
<td>Chapter 12</td>
<td>-Homework 6</td>
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<tr>
<td></td>
<td>Flexibility</td>
<td>Chapter 13</td>
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<tr>
<td>15</td>
<td>Thanksgiving Week</td>
<td>NO ASSIGNMENT</td>
<td></td>
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<td></td>
<td>(NO CLASS)</td>
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<tr>
<td>16</td>
<td>Accreditation</td>
<td>Chapter 15</td>
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<td></td>
<td>HROs</td>
<td>Chapter 15</td>
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<td>17</td>
<td>Final Examination</td>
<td>2nd half material</td>
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* Class in IT Building Room 3204

*Readings found in Folio Classroom

HW 1: Email to “boss” on observations from Friday Night at the ER (LO 7)

HW 2: Project Management & Quality Management (LO 2,5)

HW 3: SPC & Six Sigma and Lean (LO 2,4)

HW 4: Process Analysis & Capacity Demand (LO 2,4)

HW 5: Scheduling & Forecasting Demand (LO 2,4)

HW 6: Cost & FMEA Activity (LO 3,4,7)

Samples of your work may be reproduced for search purposes and/or inclusion in the professor’s teaching portfolio. You have the right to review anything selected for use, and subsequently ask for its removal.
Instructional Methods: Class meetings will be a combination of lecture, class discussion, simulation, in-class problems, case studies/homework, and possibly guest lecturers. Written homework assignments, case presentations, and examinations constitute the basis of student evaluation.

Class Participation: Class participation is an integral part of the learning process. Students will be expected to remain current with the readings, contribute to discussion of the week’s topics, have completed the current week’s assignments, ask questions, make comments, and agree/disagree with the professor. You must come to class prepared (read chapter and other readings for the week before class and do assignments) to discuss issues and review assignments. Students are expected to bring laptops to class. We will be working through problems.

Team Presentation: Eight teams of ~3 will be assigned to present external research (articles and/or cases) that relate to course material throughout the class, beginning with Quality Management (Chapter 4).

Exam Schedule and Final Examination: Midterm Examination: October 5, 2017
Final Examination: December 5, 2017: 5:30 – 7:30 PM

Student Assessment: Assessments are linked to learning objectives for this class. Assignment weights will be as follows:

- Excel Self-Study (Building A Better U) (LO 2) P/F
- Weekly Objective Exams (10 x 2% each) (LO 1) 20%
- Homework Assignments (6 x 4% each) (LOs above) 24%
- Class Article Presentation (LO 7) 16%
- Participation (LO 7) 10%
- Mid-Term Exam (LO 1, 3, 6) 15%
- Final Exam (LO 1, 3, 6) 15%

Grading Scale: 90-100% = A 80-89% = B 70-79% = C 60-69% = D 0-59% = F

For calculation of your final grade, all grades above will be included.

Your grades will not be posted. All exams and assignments will be graded and returned promptly so that students may accurately calculate their grades at any point in time during the semester.

There are times when extraordinary circumstances occur (e.g., serious illness, death in the family, etc.). In such circumstances, consult with the
professor as soon as possible. If you need additional time to satisfactorily complete any course requirement, consult with the professor a minimum of 48 hours prior to due date. Extensions are not guaranteed and are at the discretion of the professor.

NO EXTRA CREDIT PROJECTS WILL BE ASSIGNED.

**Academic Misconduct:** As a student registered at this University, you are expected to adhere to the strictest standards of conduct. Review the latest edition of the *Student Conduct Code* book, as well as the latest *Undergraduate & Graduate Catalog* to familiarize yourself with the University’s policies in this regard. Your continued enrollment in this course is an implied contract between you and the professor on this issue; from this point forward, it is assumed that you will conduct yourself appropriately.

Academic integrity relates to the appropriate use of intellectual property. The syllabus, lecture notes, and all materials presented and/or distributed during this course are protected by copyright law. Students are authorized to take notes in class, but that authorization extends only to making one set of notes for personal (and no other) use. As such, students are not authorized to sell, license, commercially publish, distribute, transmit, display, or record notes in or from class without the express written permission of the instructor.

**Academic Handbook:** Students are expected to abide by the Academic Handbook, located at [http://students.georgiasouthern.edu/sta/guide/](http://students.georgiasouthern.edu/sta/guide/). Your failure to comply with any part of this Handbook may be a violation and thus, you may receive an F in the course and/or be referred for disciplinary action.

**University Calendar:** The University Calendar is located with the semester schedule, and can be found at: [http://catalog.georgiasouthern.edu/graduate/general-information/university-calendars/](http://catalog.georgiasouthern.edu/graduate/general-information/university-calendars/).

**Attendance Policy:** Federal regulations require attendance be verified prior to distribution of financial aid allotments. Attendance will be recorded for each class. Chronic attendance problems (missing two or more classes) may lead to a reduction in your grade. Students are expected to attend every class.

**One Final Note:** The contents of this syllabus are as complete and accurate as possible. The professor reserves the right to make any changes necessary to the syllabus and course material. The professor will make every effort to inform students of changes as they occur. It is the responsibility of the student to know what changes have been made in order to successfully complete the requirements of the course.