New York University – Robert F. Wagner Graduate School of Public Service

PADM-GP-2117:
Information Management and Systems in Public and Nonprofit Service Agencies

Instructor: Derek Coursen
derek.coursen@nyu.edu
347.401.3649 [cell]

COURSE DESCRIPTION:
The goal of this course is to prepare non-technical stakeholders working in the human service, justice and public health arenas so that they can participate effectively in decision-making about information management practices and tools. Using a framework of general systems concepts to explore organizational and technical issues, the course will address how various stakeholder roles—clients, front-line workers and supervisors, performance measurement staff, evaluators and funders—conceive of useful information; the challenges of developing information management capacity and acquiring information systems; and the context and implications of the movements toward creating comparable measures and/or integrating data across multiple programs and agencies.

Specifically, this course is designed to enable students to:
• Understand differences among various stakeholder groups’ desire for and use of information;
• Learn how to estimate the costs of information management capacity and activities;
• Become familiar with the structure of software, the stages of and roles within projects to develop or customize it, and the factors that contribute to success or failure;
• Understand the particular complex of problems that client-serving agencies face around competing internal priorities, reporting to external funders, acquiring information systems, integrating data across multiple programs, and managing change.
• Learn how emerging trends in shared measurement and data integration may affect agencies.

COURSE READINGs: See session details.

COURSE REQUIREMENTS:
Grading will be based on the following criteria:
• Case Study (40%). A study (2,500-3,500 words plus appendices) analyzing the information management situation and challenges of a real-life client-serving program.
• Midterm Exam (30%). Take-home exam with open use of readings. Eight questions (one or two paragraph response each) on concepts discussed in readings and classes.
• Class Participation (10%). Active participation in class discussion and small group work.
• Group Project (20%). A memo and short presentation making recommendations in response to a fictional agency’s information management problem scenario.

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<tr>
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<th>Distributed</th>
<th>Draft Due</th>
<th>Final Version Due</th>
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<tbody>
<tr>
<td>Case Study</td>
<td>Session 1</td>
<td>Session 8</td>
<td>Session 12</td>
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<tr>
<td>Midterm Exam</td>
<td>Session 5</td>
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<td>Session 6</td>
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<tr>
<td>Group Project</td>
<td>Session 12</td>
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<td>Exam Period</td>
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## CALENDAR (SPRING 2013): Thursdays 8:35 – 10:15 pm  
25 W. 4th St., Room C-13

<table>
<thead>
<tr>
<th>MODULE I</th>
<th>ORGANIZATIONS AND INFORMATION</th>
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<tbody>
<tr>
<td>Thursday 1/31</td>
<td>Session 1 – Introduction. Service Programs as Systems that Use Information</td>
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<tr>
<td>Thursday 2/7</td>
<td>Session 2 - Data / Information / Knowledge and its Cost</td>
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<tr>
<td>Thursday 2/14</td>
<td>Session 3 - Stakeholder Group Priorities (Part I): Operations</td>
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<td>Thursday 2/21</td>
<td>Session 4 - Stakeholder Group Priorities (Part II): Analytics</td>
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| Thursday 2/28 | Session 5 - Resources, Power and Information Management Capacity  
**MID-TERM EXAM DISTRIBUTED** |

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<thead>
<tr>
<th>MODULE II</th>
<th>INFORMATION SYSTEMS</th>
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| Thursday 3/7 | Session 6 - The Structure of Software  
**MID-TERM EXAM DUE** |
| Thursday 3/14 | Session 7 - The Software Development Process |

**SPRING BREAK**

| Thursday 3/28 | Session 8 - Disciplines of Organizing Information  
**DRAFT OF CASE STUDY DUE** |
| Thursday 4/4 | Session 9 - Buy/Build/Modify Decision & Information System Contracting |
| Thursday 4/11 | Session 10 - Information System Successes and Failures |

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<thead>
<tr>
<th>MODULE III</th>
<th>SPECIFIC PRACTICES AND EMERGING TRENDS FOR MANAGING INFORMATION</th>
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<tbody>
<tr>
<td>Thursday 4/18</td>
<td>Session 11 - Inter-Agency Data Collection and Exchange</td>
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</table>
| Thursday 4/25 | Session 12 - The Shared Measurement Movement  
**FINAL VERSION OF CASE STUDY DUE**  
**GROUP PROJECT DISTRIBUTED** |
| Thursday 5/2 | Session 13 - Data Warehousing and Flow Modeling |
| Thursday 5/9 | Session 14 - Visualization of Data |
| Thursday 5/16 | **PRESENTATION OF GROUP PROJECTS**  
[Exam Period] |

### SESSION DETAILS:
<table>
<thead>
<tr>
<th>Session 1</th>
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<tbody>
<tr>
<td><strong>Course Introduction.</strong></td>
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<tr>
<td>Introductions. Course goals and expectations.</td>
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<tr>
<td><strong>Service Programs as Systems that Use Information.</strong></td>
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<tr>
<td>Metaphors for understanding organizations. General insights about systems. Construing elements, boundaries and environment. Seeing human service, justice and public health programs as systems.</td>
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<td><strong>Readings:</strong></td>
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<tr>
<td><strong>Data / Information / Knowledge and its Cost</strong></td>
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<td>More views of organization. Proposed and problematic definitions of data, information and knowledge. Analyzing the costs of collecting data and managing information.</td>
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<td><strong>Readings:</strong></td>
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<tr>
<td>• <strong>Case for discussion:</strong> TBA</td>
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<td><strong>Stakeholder Group Priorities (Part I): Operations</strong></td>
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Session 4

Stakeholder Group Priorities (Part II): Analytics

Readings:

Session 5

Resources, Power and Information Management Capacity
Patterns of funding and scarcity of resources for information management. Organizational roles, power and decision-making within service agencies. External funders as major stakeholders. How private philanthropy approaches information management issues in grantees. The diverse constellation of technical skill sets and roles; technical staffing patterns in service agencies.

Guest Lecturer: Jonathan Peizer, Internaut Consulting

Readings:
• Collected postings for human service information management positions.
Session 6

The Structure of Software
Front-end vs. back-end. Interfaces, procedural logic, database structures and reports. Multi-tiered applications. Technical platforms. Implications of the internet. How the structure of software systems constrains decision-making about them. Small group exercise: TBA.

Readings:
- Handout from instructor: ‘Basic concepts of software architecture’
- D. Dreher (2007), ‘Client Data Management: Collecting, Storing & Using Data’ Center for Victims of Torture
- ‘Using flowcharts to map a service delivery process’ (n.d) NPower

Session 7

The Software Development Process

Readings:
- J. Rakos (1990), Software Project Management for Small to Medium Sized Projects, pp. TBA

Session 8

Disciplines of Organizing Information: Definitions, Taxonomies and Data Models
Definitions, taxonomies and data models as building blocks of information systems. Data modeling and its role in the software development process. Effects of decisions in these areas on the capabilities and flexibility of information systems. In-class Workshop: Data Modeling for Case Study Projects.

Readings:
- M. Chisholm (2010), Definitions in Information Management, pp. 47-82
- Center for Victims of Torture (1997), ‘Data Model for Torture Treatment Centers’

Session 9

The Buy/Build/Modify Decision & Information System Contracting
The buy or build decision. Capacity constraints in government agencies and nonprofit service providers. Off-the-shelf products and the customization process.

Readings:
- Materials from commercial human service software systems (TBA)
Session 10

Information System Successes and Failures
Defining success and failure of information systems. Factors relevant to any kind of enterprise.
Problems of incompleteness and instability in user requirements. Challenges of managing scope and
cost. Factors peculiar to human service, justice and public health programs.

Guest Lecturer: Patti Bayross, NYC Department of Information Technology & Telecommunications

Readings:
  Management Services, Autumn
• O. Gutierrez and D. H. Friedman (2005), ‘Managing project expectations in human services information
  systems implementations: The case of homeless management information systems’, International Journal of
  Project Management, Vol. 23
• D. Coursen (2012), ‘Why Clarity and Holism Matter for Managing Human Service Information (And How the
  Sector Can Achieve Them)’, Data Administration Newsletter
• B. Magda (2012), ‘Mitigating the Effects of Technology Change in Healthcare IT’, Online Journal of
  International Case Analysis, Vol. 3, No. 1
• Case for discussion: TBA

Session 11

Inter-Agency Data Collection and Exchange
Collection of data by funding agencies. The need to exchange data among government agencies.

Guest Lecturer: Jim Parsons or David Cloud, Vera Institute – Justice and Health Data Exchange Initiative

Readings:
• Adoption and Foster Care Analysis and Reporting System (AFCARS) Materials: ‘Technical Bulletin #1: Data
  Vision in Crisis Response’, Public Policy Center, University of Nebraska
Session 12

The Shared Measurement Movement
The historical context of the shared measurement movement. Practical problems of implementing shared measurement. Implications for information management in service providers.

Guest Lecturer: Louisa Chafee, Office of the NYC Deputy Mayor for Health & Human Services

Readings:
- M. Kramer, M. Parkhurst & L. Vaidyanathan (2009), *Breakthroughs in Shared Measurement and Social Impact*, FSG
- Case for discussion: TBA

Session 13

Data Warehousing and Flow Modeling

Readings:

Session 14

Visualization of Data
Techniques and resources for the visual presentation of data.

Readings:
- E. Tufte, ‘Powerpoint is Evil’ (2009) *Wired*
- Examples of advanced data visualization practices, TBA