Course Syllabus
MIS 491 Section 001 – Seminar in MIS: Cloud Computing
CRN 80352 Fall 2019 (August 29 to December 5)
Fairfax: Innovation Hall 206, Thursday 7:20pm–10:00pm
(I reserve the right to make changes to the syllabus, as needed.)

Instructor Information
• Name: Dr. Andy Yao
• Email: ayao2@gmu.edu (Your email will be answered within 24 hours.)
• Office: Enterprise Hall 143
• Office Hours: Thursday 6:00pm to 7:00pm
  (To ensure that I am available to see you, please always send an email first.)
• Course Website: http://mymason.gmu.edu

Class Times & Location
• Time: Thursday 7:20-10:00pm
• Location: Innovation Hall 206

Required Prerequisites
• A minimum grade of C in MIS 301, L301, MIS 303, or L303.
• Students with a class of Freshman may not enroll.
• Non-Degree level students may not enroll.
• Students with the terminated from BU major attribute may not enroll.

Textbook and Course Site
• This class uses open educational resources (OERs). This is no book to purchase.
• Blackboard:
  o All assignments are posted on Blackboard and must be submitted via Blackboard by
    the deadlines in order to receive credits. Assignments sent via email will not receive
    credits. Assignments submitted after the deadlines will not receive credits.
  o All course materials are posted on Blackboard.
  o You are required to check the Blackboard course site and email on a daily basis.

Course Description
Seminar in MIS:
Analyzes selected topics that highlight latest developments in information resource management field,
including contemporary research findings and case studies of information systems in business and
other organizations. Offered by School of Business. May be repeated within the term for a maximum 6
credits.

Cloud Computing:
Surveys the cloud technology, introduces the characteristics and service models of cloud computing,
and examines the impact and value of cloud computing. Explores the adoption, applications, benefits,
deployment, economics, models, risks, services, strategy, and values of the cloud computing from the
business and managerial perspective. Students will gain the knowledge of the cloud computing
principles and concepts needed to evaluate, adopt, deploy, and manage cloud environments.
Course Objectives
Upon completion of this course, students will be able to
- Describe the impact and value of cloud computing on information systems management
- Explain cloud service models and their applications
- Defines the steps to adopt cloud computing
- Articulate the business and management cost of cloud adoption
- Evaluate and select a cloud service/platform to support the business operations and needs
- Handle billing, account management, and price models for selected cloud applications
- Sit for the entry-level, professional cloud certification exam, such as CompTIA Cloud Essentials

Mason Core Learning Outcomes:
- Students will understand the principles of information storage, exchange, security, and privacy.
- Students will become critical consumers of digital information; they will be capable of selecting and evaluating appropriate, relevant, and trustworthy sources of information.
- Students can use appropriate information technologies to organize and analyze information and use it to guide decision-making.
- Students will be able to choose and apply appropriate algorithmic methods to solve a problem.

ISOM Learning Goals
- Apply knowledge of information technology, operations, and business functions to assess, design and improve business processes.
- Develop data organization, storage, and processing solutions to support organizational needs for information management. Also develop skills in the area of business intelligence.
- Use knowledge of computer networks as part of IT solutions for improving business processes.

Course Format
This course consists of a combination of lectures, discussions, and hands-on practice sessions. Please see the topical outline for a tentative list of topics. There will be individual assignments, quizzes, and exams.

Computers and Software Used in the Class - Required
- The School of Business undergraduate program requires every student to have access to a portable computing device that satisfies the requirements listed below and can be brought to class as needed. Note that as technology changes rapidly, these requirements may change during a student’s time in the School of Business. Many School of Business courses require the use of a computer during class. These are used to learn techniques, practice applications, and access Internet resources. While most students have a portable computer or access to one, some courses require specific requirements due to the use of specific applications during class. To address these requirements, a list of standard minimum requirements has been determined and will be reviewed annually. View the standard minimum requirements. (http://business.gmu.edu/undergraduate/policiesproceduresforms/)
- George Mason University provides Microsoft Office 365 ProPlus to students at no cost via the Microsoft Student Advantage program. Office 365 ProPlus for PC users includes both Excel and Access 2016. Please visit http://masonlive2.gmu.edu/MicrosoftStudentAdvantage/ for more information. This link provides the tutorial for downloading MS Office for free through your Masonlive email account. Please follow the tutorial to install the software on your laptop.

Grading Policy (No curving will be applied)

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Value</th>
<th>Semester Grade Scale</th>
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</thead>
<tbody>
<tr>
<td>Homework (4)</td>
<td>20%</td>
<td>A 93% to 100%</td>
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<tr>
<td>Quizzes (3)</td>
<td>30%</td>
<td>A- 90% to 92.99%</td>
</tr>
<tr>
<td></td>
<td>20%</td>
<td>B+</td>
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<td>----------------</td>
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</tr>
<tr>
<td>Exam (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project (1)</td>
<td>30%</td>
<td>B</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100%</td>
<td>B-</td>
</tr>
</tbody>
</table>

1% means 1% of your total grade. You have only 100% in your semester grade.

1. Semester grades must be assigned according the grading policy.
2. All assignments must be submitted via Blackboard by the deadlines in order to receive credits.
3. If you missed a deadline, you will not receive credits for the missed assignment.
4. It is your responsibility to ensure that your submitted solution satisfies all requirements. If your submitted solution failed to satisfy any of the requirements, you will not receive credits. There is no such thing as “partially correct solution”. A solution is either correct or incorrect.
5. For “Homework”, you are allowed many submissions before the deadlines. Hence, you can revise and resubmit your solutions before the deadline. For “Project/Quiz/Exam”, you are allowed one submission. (Blackboard allows you to upload many files in one submission.)
6. You are required to attend all class meetings and be prepared. Absence from class does not constitute a reason for being unprepared at subsequent class sessions. If you missed a class, you are fully responsible for the materials covered in the class that you missed.
7. You are required to check Blackboard course site and your email on a daily basis.

**Reading Assignments**

Students are required to read the course materials before coming to class meetings.

**Communications**

- For privacy and confidentiality, you are required to use your GMU email account to communicate to me. Your email will be answered with 24 hours. Assignments sent via email will NOT be graded and will not receive credits. If you encountered issues with uploading your files via Blackboard, you can send me an email to receive a reasonable extension.
- Broadcast announcements posted via Blackboard are also sent to you via email.

**Policy on Electronic Devices**

Please keep cell phones and other communicative devices in silent/vibration mode. Laptops or other electronic devices should strictly be used for class related activities such as taking notes or following lectures. Engaging in activities not related to the course is strictly prohibited, such as sending/reading text messages, tweets, using apps, etc. You will be asked to leave the classroom, should you violate this policy.

**Inclement Weather and Other Emergencies**

Class will be cancelled when the campus is closed, either due to inclement weather or other situations. Please check GMU website for up-to-date information. Please register Mason Alert so that you can receive timely emergency notifications and warnings.

**Disability Accommodations**

If you are a student with a disability and you require academic accommodations, please see me and contact the Office of Disability Services (ODS) at (703) 993-2474 (http://ods.gmu.edu/), at the beginning of the semester. All academic accommodations due to disability must be arranged through the ODS and should be made during the first two weeks of the semester.

**Academic Integrity**

George Mason University has the following clearly described University Honor Code administered by the Office for Academic Integrity: “To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the University Community
have set forth this: Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to their academic work.

The Honor System and Code adopted by George Mason University will be enforced for this class: http://oai.gmu.edu/mason-honor-code/full-honor-code-document/

As a student you are responsible for upholding these standards for this course. It is your responsibility to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. In your work on all written assignments, keep in mind that you may not present as your own the words, the work, or the opinions of someone else without proper acknowledgement. You also may not borrow the sequence of ideas, the arrangement of material, or the pattern of thought of someone else without proper acknowledgement. Faculty are obligated to submit any Honor Code violations or suspected violations to the Honor Committee without exception. Any suspected case of honor code violation will be reported to the Office of Academic Integrity immediately. In such a case, I will withhold from grading your assignments until after the case is cleared by the Office of Academic Integrity. All students are expected to adhere to this code. All acts of academic dishonesty will be dealt with in accordance with the provisions of this code.
The recommendations for honor code violations for non-freshman undergraduate students adopted by the School of Business faculty on May 2016 are as follows:

<table>
<thead>
<tr>
<th>School of Business Recommendations for Honor Code Violations</th>
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</thead>
<tbody>
<tr>
<td>Approved May 2016</td>
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<tr>
<td>UG-Non Freshman Students (including transfer students)</td>
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<table>
<thead>
<tr>
<th>Type of Violation</th>
<th>First Offense</th>
<th>Second Offense</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plagiarism</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Failure to cite/attribute sources</td>
<td>An F in the class; referral to Writing Center; Academic Integrity Seminar completion</td>
<td>An F in the class; referral to the Writing Center; Academic Integrity Seminar completion; termination from the School of Business; and at least one semester suspension or expulsion</td>
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<tr>
<td>2. Representing someone else’s work as the student’s own (e.g., copying and pasting)</td>
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<tr>
<td><strong>Cheating</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. On a minor assignment (e.g., homework, quizzes)</td>
<td>An F in the class; Academic Integrity Seminar completion</td>
<td>An F in the class; Academic Integrity Seminar completion; termination from the School of Business; and at least one semester suspension or expulsion</td>
</tr>
<tr>
<td>2. Cheating on a major assignment or exam, submitting course work from another course as original work</td>
<td>An F in the class; Academic Integrity Seminar completion, and at least one semester suspension</td>
<td>An F in the class; Academic Integrity Seminar completion; termination from the School of Business; and at least one semester suspension or expulsion</td>
</tr>
<tr>
<td><strong>Lying (e.g., providing fraudulent excuse documents, falsifying data)</strong></td>
<td>An F in the class; Academic Integrity Seminar completion, and at least one semester suspension</td>
<td>An F in the class; Academic Integrity Seminar completion; termination from the School of Business; and at least one semester suspension or expulsion</td>
</tr>
<tr>
<td><strong>Egregious Violation (e.g., stealing an exam; submitting coursework from another class as original work across multiple courses; lying to an employer about academic performance, false identification or posing as another, in person or online)</strong></td>
<td>An F in the class, Academic Integrity Seminar completion; termination from the School of Business; and at least one year suspension</td>
<td>An F in the class; Academic Integrity Seminar completion; termination from the School of Business; and expulsion</td>
</tr>
</tbody>
</table>

*Note: The Academic Integrity Seminar used by Office of Academic Integrity costs $100.*
# MIS 491 Cloud Computing

**Fall 2019 (Aug. 29 to Dec. 5)**  
**Classroom:** Innovation Hall 206  
**Thursday 7:20pm-10:00pm**

## Topical Outline
(I reserve the right to make changes, as needed.)

<table>
<thead>
<tr>
<th>Week/Date</th>
<th>Topics</th>
</tr>
</thead>
</table>
| 1 (Aug. 29) | Virtualization vs. Cloud Computing  
Virtualization infrastructure and Types  
- Network virtualization  
- Storage/Memory virtualization  
- Server virtualization  
- Data virtualization  
- Desktop virtualization  
- Application virtualization  
Cloud Economics  
**HW #1** |
| 2 (Sep. 5) |  |
| 3 (Sep. 12) | What is cloud computing?  
- key characteristics  
- architecture  
- components  
- application  
- infrastructure  
**HW #2** |
| 4 (Sep. 19) | Quiz #1 |
| 5 (Sep. 26) | Cloud Providers  
Cloud service models  
Select cloud service provider |
| 6 (Oct. 3) | Midterm Exam |
| 7 (Oct. 10) | SaaS vs. IaaS vs. PaaS |
| 8 (Oct. 17) | Overview of Amazon Web Services; Architecting for the Cloud (AWS Best Practice)  
**HW #3** |
| 9 (Oct. 24) | Quiz #2 |
| 10 (Oct. 31) | Getting Started with AWS  
Using AWS  
**HW #4** |
| 11 (Nov. 7) |  |
| 12 (Nov. 14) | Quiz #3 |
| 13 (Nov. 21) | Diving into AWS Offerings; How AWS Pricing Works; Compare AWS Support Plans  
About cloud certification exams:  
  - AWS Certified Cloud Practitioner  
  - CompTIA Cloud Essentials |
| 14 (Dec. 5) | Project |

## Important Dates
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
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<tbody>
<tr>
<td>Sep. 3</td>
<td>Last Day to Add Classes</td>
</tr>
<tr>
<td>Sep. 9</td>
<td>Last Day to Withdraw with Full Refund</td>
</tr>
<tr>
<td>Sep. 3; Nov. 27 to Dec. 1</td>
<td>Holidays/Breaks</td>
</tr>
<tr>
<td>Oct. 1 to Oct. 29</td>
<td>Selective Withdraw Period</td>
</tr>
<tr>
<td>Dec. 7</td>
<td>Last Day of Classes</td>
</tr>
</tbody>
</table>

Link to academic calendar: [https://registrar.gmu.edu/calendars/](https://registrar.gmu.edu/calendars/)