The Department of Information Sciences and Technology
Volgenau School of Engineering
George Mason University
4400 University Drive
Fairfax, VA  22030-4444

IT 441   Network Servers and Infrastructure
Fall 2015

Syllabus

Section DL1: Asynchronous Distance Learning Section *
Instructor: Alex Jalinous
Office: Room 5503, Nguyen Engineering Building (Fairfax campus);
Office Hours: By appointment
Phone:
Email: ajalinou@gmu.edu

GTA: Santhalingam, Panneer
Office: ENGR 5503
Office Hours: TBD
Phone: TBD
Email: psanthal@gmu.edu

* Asynchronous Distance Learning Section:

This is an online asynchronous distance learning section. Students will meet twice at either the PW or Fairfax campus on the following dates and times in order to take the Mid Term and the Final exam. The Date and Time for the exams will be announced at a later time.

Prerequisite:

IT341, Math108 or Math125 or permission of the instructor

Lecture Textbooks:
There is no textbook assigned. However the students are required to download and read all reading assignments as specified in the weekly assignment under the Course Content.

**Slides:**

Class lectures

**Lecture:**

Pre-recorded lecture posted to the course room

**Course Materials:**

https://mymasonportal.gmu.edu

**Description:**

The course covers IPv.6 networking concepts and practices. Students will also learn the concept of Virtual Computing, Cloud Computing, VoIP and many other topics that need to be implemented on an Enterprise network.

**Grading:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>15%</td>
</tr>
<tr>
<td>Discussions</td>
<td>20%</td>
</tr>
<tr>
<td>Mid Term</td>
<td>25%</td>
</tr>
<tr>
<td>Lab</td>
<td>15%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25%</td>
</tr>
</tbody>
</table>

Grades will be awarded in accordance with the GMU Grading System for undergraduate students. For details, refer to [http://www.gmu.edu/catalog/apolicies/](http://www.gmu.edu/catalog/apolicies/)

**Grading Scale:**

- 97 – 100% → A+
- 93 – 96% → A
- 90 – 92% → A-
- 87 – 89% → B+
- 83 – 86% → B
- 80 – 82% → B-
- 76 – 79% → C+
- 70 – 75% → C
- 60 – 69% → D
- 0 – 59% → F

Raw scores may be adjusted by the Instructor to calculate final grades.
Homework Assignments, Lab Sessions & NetAcad Fundamentals Final Exam:

Homework assignments and lab sessions are in Blackboard. Each homework assignment and lab session will be released for viewing 7 days prior to the due date. Late homework assignment and lab session will not be accepted – if accepted, a penalty will be applied. Acceptance of late homework assignment and lab session, and retake of missed exam will be at the sole discretion of the Instructor. All assignments will be turned in through Blackboard. Emailed homeworks and labs are not accepted.

While students are encouraged to discuss solutions to homework and project problems, each student must submit their own, original, work. Students are expected to abide by the George Mason University Honor System and Code (which contains a definition of plagiarism, amongst other things). Further related information is available from IEEE, ACM.

Note that we reserve the right to submit student assignments and projects for automated testing against other submitted projects to confirm a submission’s originality.

No student who fails the final exam will receive a grade higher than C.

Midterm Exam:
The midterm exam will be “closed book” – no reference materials will be permitted.

Final Exam:
The final exam will cover material discussed primarily after the midterm until the last week of the class. The final exam will be “closed book” – no reference materials will be permitted. Final exams are retained by the AIT Department and are not returned to students.

Schedule (Subject to Change):

<table>
<thead>
<tr>
<th>Session</th>
<th>Content</th>
<th>Reading, Assignments &amp; Labs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IPv6 Essentials</td>
<td>For the details on course assignment for this week please refer to the Course Content / Weekly Activities / Week 1 and 2 section of the Black Board course shell.</td>
</tr>
<tr>
<td>Week of Aug 30th</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>IPv6 Essentials Conti..</td>
<td>For the details on course assignment for this week please refer to the Course Content / Weekly Activities / Week 1 and 2 section of the Black Board course shell.</td>
</tr>
<tr>
<td>Week of Sep 6th</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>IPv6 Implementation</td>
<td>For the details on course assignment for this week please refer to the Course Content / Weekly Activities / Week 1 and 2 section of the Black Board course shell.</td>
</tr>
<tr>
<td>Week of Sep 13th</td>
<td>4</td>
<td>Fall 2015 Syllabus</td>
</tr>
<tr>
<td>-----------------</td>
<td>---</td>
<td>-------------------</td>
</tr>
<tr>
<td>Week of Sep 20th</td>
<td>VMWare</td>
<td>For the details on course assignment for this week please refer to the Course Content / Weekly Activities / Week 4 section of the Black Board course shell.</td>
</tr>
<tr>
<td>Week of Sep 27th</td>
<td>Cloud Computing Basics</td>
<td>For the details on course assignment for this week please refer to the Course Content / Weekly Activities / Week 5 section of the Black Board course shell.</td>
</tr>
<tr>
<td>Week of Oct 4th</td>
<td>Quality Of Service (QoS) Mid Term Review and Study period</td>
<td>For the details on course assignment for this week please refer to the Course Content / Weekly Activities / Week 6 section of the Black Board course shell. Mid Term Review Sheet posted in Blackboard</td>
</tr>
<tr>
<td>Week of Oct 11th</td>
<td>On Campus Midterm Exam Exact Day, Time and Location TBD</td>
<td></td>
</tr>
<tr>
<td>Week of Oct 18th</td>
<td>Multi Protocol Label Switching (MPLS)</td>
<td>For the details on course assignment for this week please refer to the Course Content / Weekly Activities / Week 7</td>
</tr>
<tr>
<td>Week of Oct 25th</td>
<td>VPN Secure Network Connectivity</td>
<td>For the details on course assignment for this week please refer to the Course Content / Weekly Activities / Week 9 section of the Black Board course shell.</td>
</tr>
<tr>
<td>Week of Nov 1st</td>
<td>Network Neutrality</td>
<td>For the details on course assignment for this week please refer to the Course Content / Weekly Activities / Week 10 section of the Black Board course shell.</td>
</tr>
<tr>
<td>Week</td>
<td>Reading Assignment</td>
<td>Details on Course Assignment</td>
</tr>
<tr>
<td>------</td>
<td>--------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>11</td>
<td>VoIP Architecture</td>
<td>For the details on course assignment for this week please refer to the Course Content / Weekly Activities / Week 11 section of the Black Board course shell.</td>
</tr>
<tr>
<td>12</td>
<td>Peer to Peer Protocols</td>
<td>For the details on course assignment for this week please refer to the Course Content / Weekly Activities / Week 12 section of the Black Board course shell.</td>
</tr>
<tr>
<td>13</td>
<td>DHCPv6, DNS(IP6) and ICMPv.6</td>
<td>For the details on course assignment for this week please refer to the Course Content / Weekly Activities / Week 13 section of the Black Board course shell.</td>
</tr>
<tr>
<td>14</td>
<td><em>Final Exam Review Sheet posted in Blackboard</em></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td><em>Final Exam - Time TBD</em></td>
<td></td>
</tr>
</tbody>
</table>

The reading assignment shown for each lecture is to be completed **prior to** that lecture.

*This schedule is subject to revision before and throughout the course.*

*Registered students should see the Blackboard Learning System for the latest class schedule.*
Important Dates

Last day to add classes: Refer to the link below
Last day to drop with 50% tuition penalty: Refer to the link below
Last day of classes: Refer to the link below

http://registrar.gmu.edu/calendars/fall-2015/

Religious Holidays

A list of religious holidays is available on the University Life Calendar page. Any student whose religious observance conflicts with a scheduled course activity must contact the Instructor at least 1 week in advance of the conflict date in order to make alternative arrangements.

Attendance Policy

Departmental policy requires students to take exams at the scheduled time and place, unless there are truly compelling circumstances supported by appropriate documentation. Except in such circumstances, failure to attend a scheduled exam will result in a score of zero (0) for that exam, in accordance with Mason policy on final exams. Students should not make travel plans or other discretionary arrangements that conflict with scheduled classes and/or exams. If the University is closed due to weather or other unforeseen conditions, final exams may be rescheduled – students are strongly advised not to make plans that would prevent them from attending exams that may be rescheduled during the entire exam period.

Communications

Registered students will be given access to a section of the Blackboard Learning System for this course. Blackboard will used as the primary mechanism to disseminate course information, including announcements, lecture slides, homework and other assignments, and scores for homework and exams.

Communication with the Instructor on issues relating to the individual student should be conducted using GMU email, via telephone, or in person - not in the public forums on Blackboard. GMU email is the preferred method – for urgent messages, you should also attempt to contact the Instructor via telephone. Federal privacy law and GMU policy require that any communication with a student related in any way to a student's status be conducted using secure GMU systems – if you use email to communicate with the Instructor you MUST send messages from your GMU email account.

Lecture slides are complements to the lecture process, not substitutes for it - access to lecture slides will be provided in Blackboard.
All course materials (lecture slides, assignment specifications, etc.) are published on Blackboard. This allows users of most computing platforms to view and print these files. Microsoft® Word (or a compatible word processing application) is required for preparing assignments – it is available on computers in the Mason open labs.

**Privacy**

Instructors respect and protect the privacy of information related to individual students above, issues relating to an individual student will discussed via email, telephone or in person. Instructors will not discuss issues relating to an individual student with other students (or anyone without a need to know) without prior permission of the student.

Assessable work other than final exams will be returned to individual students directly by the Instructor (or by a faculty or staff member or a Teaching Assistant designated by the Instructor or via another secure method). Under no circumstances will a student's graded work be returned to another student.

Faculty and staff will take care to protect the privacy of each student's scores and grades.

**Disability Accommodations**

The Office of Disability Services (ODS) works with disabled students to arrange for appropriate accommodations to ensure equal access to university services. Any student with a disability of any kind is strongly encouraged to register with ODS as soon as possible and take advantage of the services offered.

Accommodations for disabled students must be made in advance – ODS cannot assist students retroactively, and at least one week's notice is required for special accommodations related to exams. Any student who needs accommodation should contact the Instructor during the first week of the semester so the sufficient time is allowed to make arrangements.

**Honor Code**

All members of the Mason community are expected to uphold the principles of scholarly ethics. Similarly, graduating students are bound by the ethical requirements of the professional communities they join. The ethics requirements for some of the communities relevant to Applied IT graduates are available via the following links:

[ACM Code of Ethics and Professional Conduct](#)

[IEEE Code of Ethics](#)

[EC-Council Code of Ethics](#)
On admission to Mason, students agree to comply with the requirements of the GMU Honor System and Code\(^1\). The Honor Code will be strictly enforced in this course. Honor Code cases are heard by a panel consisting of students – students who meet the requirements are encouraged to nominate themselves to serve on the Honor Committee.

Any use of the words or ideas of another person(s), without explicit attribution that clearly identifies the material used and its source in an appropriate manner, is plagiarism and will not be tolerated. The Instructor reserves the right to use manual and/or automated means (including such services as Turnitin.com) to detect plagiarism in any work submitted by students for this course, and to direct Teaching Assistants and/or other faculty and/or staff members to do likewise in support of this course.

For this course, the following requirements are specified:

All assessable work is to be prepared by the individual student, unless the Instructor explicitly directs otherwise.

All work must be newly created by the individual student for this course for this semester.

Any usage of work developed for another course, or for this course in a prior semester, is strictly prohibited without prior approval from the instructor.

Students may seek assistance with assigned work (and are encouraged to do so if they feel the need), provided:

- The directions for the assigned work do not prohibit such assistance.
- Such assistance is acknowledged in the submitted work, clearly identifying the person(s) giving assistance and the nature of the assistance given.
- Any work to be submitted is prepared entirely and exclusively by the student submitting it. Students are expressly prohibited from sharing any assessable work for this course in any manner with other students (except students assigned as Teaching Assistants or Undergraduate Peer Mentors to this course and the student's section), unless all students involved have had their work graded and returned by the Instructor, or the Instructor has explicitly approved such sharing.

---

\(^1\) Available at [www.gmu.edu/catalog/apolicies](http://www.gmu.edu/catalog/apolicies) and related GMU Web pages.