

**Western Illinois University**  
**School of Computer Sciences**  
**CS 590 Topics on Computer Sciences:**  
**Network Management Systems**  
**Spring 2017**

**Instructor:** Kim, Yeongkwun, Ph.D.

**Course Credit:** 3

**E-mail:** Y-Kim2@wiu.edu

**Lecture Hour:** Tue/Thu 11:00 AM – 12:15 PM

**Office:** Stipes 447 F

**Office Hours:**

Tue: 10:00 AM – 10:50 AM, 2:30 PM ~ 4:30 PM

Wed: 2:00 PM – 3:00 PM

Thursday: 10:00 AM – 10:50 AM

or Email

**Textbook:** Network Management: Principles and Practice by Mani Subramanian, 2<sup>nd</sup> Ed.  
Addison Wesley

**References:**

- ITU-T Recommendations: [www.itu.org](http://www.itu.org)
- ISO Recommendation: [www.iso.org](http://www.iso.org)
- TM Forum
- 3 GPP & 3 GPP2 Recommendations

**Course Objectives**

Network management entails monitoring and controlling various network devices on today's networks in order to provide a more reliable, secure and efficient network environment. This course covers the basic concepts and techniques used in network management. Also, international standards such as Internet network management framework and OSI network management framework will be studied. The students will get some idea how to develop a network management system.

**Method of Instruction:** Lecture and seminar

**Method of Evaluation**

- |   |                  |
|---|------------------|
| - <b>Homework Assignments:</b>              | <b>20 points</b> |
| - <b>2 Exams</b>                            | <b>60 points</b> |
| - <b>Research project and presentation:</b> | <b>20 points</b> |
| o 1 page proposal                           | 2 points         |
| o Presentation & participation              | 8 points         |
| o Final report:                             | 10 points        |

**Letter grade :**

- A:  $\geq 90$
- B:  $\geq 80$
- C:  $\geq 70$
- D:  $\geq 60$
- F:  $< 60$

**Note 1:** Point ranges for letter grades will be based on a number of factors, including absolute and relative performance. Instructor reserves the right to lower the scale if performance warrants it.

**Note 2:** Written Homework should be clearly **TYPED** as much as possible.  
**Otherwise, it will not be accepted!!!**

**Note 3:** All assignments are due at the first 5 minutes of class. Late assignments will be given 20 % penalty **BUT WILL NOT** be accepted after 24 hours of the due.

**Note 4:** No Make-up Exam will be given without **documented proof** of serious hardship. In case, student must be contact instructor immediately.

**Note 5:** One or two pop quizzes may be administered during the semester.

**Note 6:** The topics for the research project are **OPEN**. It can be either doing some research or Implementation of a prototype of small network management system. The page length of the documentation should be 10 pages in 12 points, single space.

- **1 page proposal due: February 16**

This proposal must include an overall **description of your topic**

- **5 pages draft due: March 30**

- **Presentation Powerpoint due: April 13**

- **10 pages report due: final exam schedule**

This report must include

- 1) **an introductory description of the topic**
- 2) **related works and your finding if applicable**
- 3) **a concluding remark**

**Note 7:** Class attendance is FULLY student responsibility.

- Active class participation is expected
- You may ask a question anytime
- You are expected to attend all classes

**Note 8:** regarding e-mail

- I check email throughout the day from Monday through Friday, but please allow 24 hours for a response from me during business days. Between Friday evenings and Sunday nights, I rarely check email. So if you send me an email over the weekend, you will most likely receive a response from me the following Monday morning.
- To ensure that your email reaches me safely, please put CS590 in the “subject” header at all times. Remember to be polite and respectful, and be careful and attentive to how the email is written; students are expected to use professional language and tone in all communications with the instructor, including e-mail correspondences.
- If you do not receive an e-mail response from me within the specified response times above, take another look at the construction of your e-mail. The tardiness or lack of a response on our part may be the result of an inattention to the prescribed method of professional e-mail correspondence. In that case, please revise with proper attention to e-mail etiquette and resend the e-mail.

**Major Topics to be Discussed**

- Overview of Network Management
- Network management frameworks and architectures
- Internet management framework
- OSI management framework
- Web-based framework
- Web-based enterprise management
- Network monitoring

**Plagiarism:**

It is assumed that students will learn from each other and in many cases exchange ideas regarding projects, papers and assignments. It is also required that student complete their assignments as an individual effort. Copying retyping or taking other's work and turning it in as your own will result in a zero for the material and may further be dealt with using the University's established plagiarism policy.

**Student Services Rights and Policies:**

You should also review <http://www.student.services.wiu.edu/> with regard to student rights and responsibilities and <http://www.wiu.edu/provost/student/>

**Remarks:**

The contents on this syllabus can be changed with advance notification.