**MIDSTATE COLLEGE**
**411 W. NORTHMOOR RD. PEORIA, IL 61614**
**(309) 692-4092 (800) 251-4299**
**SPRING 2014**

**Course:** CIS 325 Advanced Internet Topics
**Credit:** 4 Quarter Hours **Method of Delivery:** Classroom

**Course Description:** This course is an analysis of the internet structural design and how it affects information technology and society. Topics covered include, but are not limited to internet architecture, socio-economic issues, security, networks, content, and internet applications. Course fees may apply.

**Prerequisite**: CIS 120 Web Design, CIS 218 Network Communications, CIS 350 Information Technology

**Text(s) & Manual(s):**, *The Future Internet,* Springer, 2011; ISBN 978-3-642-20897-3
**Author(s):** Domingue et al. (Eds.)

**Text(s) & Manual(s):**, *Weaving the Web,* Harper-Collins Publishers, 2011; ISBN 978-0-06-251587
**Author(s):** Tim Berners-Lee, Mark Fischetti

**Materials needed for this course:** None

**Requirements for Completing the Course:** To successfully complete this course, the student must receive a passing grade as outlined in the Grading Scale and Grading Specifications sections of this syllabus.

**Topics:** The goal of this course is to analyze Internet technologies. This course covers a wide range of material about the Internet. It not only introduces a variety of concepts, but also discusses in-depth the most significant aspects of the Internet.

**Learning Objectives:** Upon completion of this course, the student will be able to:

1. Categorize different protocols used across the Internet
2. Compare internet applications
3. Examine different internet network architectures
4. Design websites that are compliant with the ubiquitous internet
5. Examine socio-economic issues related to the internet
6. Investigate internet privacy and security issues

**Midstate Grading scale:**

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|---|---|---|---|
| 90 - 100 | A | 60 - 69 | D |
| 80 - 89 | B | 0 - 59 | F |
| 70 - 79 | C | | |

**Midstate Plagiarism Policy:** Plagiarism is using another person's words, either by paraphrase or direct quotation, without giving credit to the author(s). Plagiarism can also consist of cutting and pasting material from electronic sources by submitting all or a portion of work for assignment credit. This includes papers, computer programs, music, sculptures, paintings,

photographs, etc. authored by another person without explicitly citing the original source(s). These actions violate the trust and honesty expected in academic work. Plagiarism is strictly against the academic policy of Midstate College. Its seriousness requires a measured, forceful response which includes consequences for inappropriate and/or no citation.

In courses containing writing assignments, the College promotes the use of an electronic resource which compares the student's writing against previously submitted papers, journals, periodicals, books, and web pages. Students and instructors can use this service to reduce the incidence of plagiarism. This electronic resource has been found to conform to legal requirements for fair use and student confidentiality. It is able to provide a report to the student indicating the parts of the assignment that match.

**Student Success:** The Office of Student Success is available to students seeking tutoring for individual classes or who need assistance with writing assignments. Information is also available on test taking techniques, how to take notes, developing good study skills, etc. Contact Chris Peck in Room 502 (in person); (309) 692-4092, extension 5023 (phone); dcpeck@midstate.edu (email).


**Instructor:** Donna Greer
**Email:** dgreer@midstate.edu
**Telephone:** 692-4092 x1220
**Office Hours:** 5-6 PM Tuesdays


**Participation Requirements:**

1) **Assignments**: Assignments and projects will be due on a weekly basis. All homework is to be turned in with your name, date, and the name of the assignment at top. 70% is the highest score that late or make up work can earn.
2) **Attendance**: It is very important! There will be a lot of class discussions and in class assignments with this course.
3) **Academic Dishonesty**: Plagiarism and cheating are serious offenses and may be punished by failure on exam, paper or project; failure in course; and/or expulsion from the college. For more information refer to the "Academic Dishonesty" policy in the student handbook.
4) **Grades:** It is the students' responsibility to keep copies of all assignments turned in for a letter grade until the end of the quarter when a final grade has been earned. If a document is lost and no copy is available, the student will not receive credit.

**Methods of evaluating student performance**: Class discussion and assignments are used to assess students' critical thinking skills.

**Examination Information**: There will be no formal exams; but there may be some quizzes.

**Instructor's Grading Scale:**

These percentages are all approximate values

- Attendance/participation 40%
- In Class Assignments 40%
- Homework Assignments 10%
- Quizzes 10%

| WK | Topics | Obj | Chapter Readings/Discussions | Assignments |
|---|---|---|---|---|
| **1** | • Introduction<br>• How this class works<br>• Discussion on Chapters | 4 | Weaving the Web<br>Chapters 1 and 2<br>Pgs 1-23 | • In-class Assignments: Chs 1&2<br>• Homework:<br>• Read Chs 3,4,5,6 in Weaving the Web<br>• Watch Video Assignment |
| **2** | • CERN<br>• Protocols<br>• Globalization<br>• Browsing | 1 | Discuss Weaving the Web Chs 3-6. | • In-class Assignments Chs 3-6.<br>• Read Chs 7-10 in Weaving the Web<br>• Watch Video Assignment |
| **3** | • Internet Changes<br>• Consortium<br>• Competition and Consensus<br>• Web of People | 4,5 | Discuss Weaving the Web Chs. 7-10 | • In-class Assignments Chs 7-10<br>• Read Chs 11-14 in Weaving the Web<br>• Watch Video Assignment |
| **4** | • Privacy issues<br>• Mind to Mind<br>• Machines and the Web<br>• Weaving the Web | 5,6 | Discuss Weaving the Web Chs. 11-14 | • In-class Assignments Chs 11-14<br>• Read Flat architectures: Towards Scalable Future Internet Mobility pg. 35 in The Future Internet<br>• Watch Video Assignment |
| **5** | Future Internet Foundations: Architectural Issues | 3 | Discuss Flat Architectures: Towards Scalable Future Internet | • In-class Assignments<br>• Read An Approach to Investigating Socio-economic Tussles Arising from Building the Future Internet pg. 145 in The Future Internet<br>• Watch video assignment |

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| **6** | Future Internet Foundations: Socio-economic Issues | 5 | Discuss An Approach to Investigating Socio-economic Tussles Arising from Building the Future Internet | • In Class Assignments<br>• Read Trustworthy Clouds Underpinning the Future Internet pg. 209<br>• Watch video assignment |
| **7** | Future Internet Foundations: Security and Trust | 6 | Discuss Trustworthy Clouds Underpinning the Future Internet | • In-class assignments<br>• Read Trusting End-to-End Self Management in a Wireless Future Internet Environment pg. 259<br>• Watch video assignment |
| **8** | Future Internet Foundations: Experiments and Experimental Design | 3 | Discuss Trusting End-to-End Self Management in a Wireless Future Internet Environment | • In-class assignments<br>• Read Bringing Optical Networks to the Cloud: An Architecture for a Sustainable Future Internet pg. 307<br>• Watch video assignment |
| **9** | Future Internet Areas: Network | 3 | Discuss Bringing Optical Networks to the Cloud: An Architecture for a Sustainable Future Internet | • In-class assignments<br>• Read Fostering a relationship between Linked Data and the Internet of Services pg. 351<br>• Watch video assignment |
| **10** | Future Internet Areas: Services | 3 | Discuss Fostering a relationship between Linked Data and the Internet of Services | • In-class assignments<br>• Read Scalable and Adaptable Media Coding Techniques for Future Internet pg. 381<br>• Watch video assignment |
| **11** | Future Internet Areas: Content | 4 | Discuss Scalable and Adaptable Media Coding Techniques for Future Internet | • In-class assignments<br>• Read Smart Cities at the Forefront of the Future Internet<br>• Watch video assignment |
| **12** | Future Internet Applications | 2 | Discuss Smart Cities at the Forefront of the Future Internet | • In-class assignments |