

MIDSTATE COLLEGE
411 W. NORTHMOOR RD. PEORIA, IL 61614
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Winter 2017

Course: CIS 326 Advanced Internet Topics

Credit: 4 Quarter Hours

Method of Delivery: eLearning

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:

90 - 100	A	60 - 69	D
80 - 89	B	50 - 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 Student Success in Room 218 (in person); (309) 692-4092, extension 2180 (phone); studentsuccess@midstate.edu (email).

Instructor: Donna Greer
Email: dgreer@midstate.edu
Telephone: 309-692-4092 Leave msg with front office.

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

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| ○ Participation (discussion forums) | 20% |
| ○ Book Summaries | 10% |
| ○ Homework Assignments | 25% |
| ○ Video Case Studies | 35% |
| ○ Project | 10% |

WK	Topics	Obj	Chapter Readings/Discussions	Assignments
1	<ul style="list-style-type: none"> • CERN • Protocols 	4	Weaving the Web Chapters 1 and 2 Pgs 1-23	Read Chs 1&2 (Weaving Web) Discussion Form Book Summary Assignment Video Case Study Assignment
2	<ul style="list-style-type: none"> • Globalization • Browsing 	1	Weaving the Web Chs 3-6.	<ul style="list-style-type: none"> • Read Chs 3-6 • Discussion Form • Book Summary Assignment • Video Case Study Assignment
3	<ul style="list-style-type: none"> • Internet Changes • Consortium • Competition and Consensus • Web of People 	4,5	Weaving the Web Chs. 7-10	<ul style="list-style-type: none"> • Read Chs 7-10 • Discussion Form • Book Summary Assignment • Video Case Study Assignment
4	<ul style="list-style-type: none"> • Privacy issues • Mind to Mind • Machines and the Web • Weaving the Web 	5,6	Weaving the Web Chs. 11-14	<ul style="list-style-type: none"> • Read Chs 11-14 • Discussion Form • Book Summary Assignment • Video Case Study Assignment
5	Future Internet Foundations: Architectural Issues	3	Flat Architectures: Towards Scalable Future Internet Mobility	<ul style="list-style-type: none"> • Read Flat Architectures: Towards Scalable Future Internet Mobility pg. 35 • Discussion Forum • Article Review Questions • Video Case Study Assignment

6	Future Internet Foundations: Socio-economic Issues	5	An Approach to Investigating Socio-economic Tussles Arising from Building the Future Internet	<ul style="list-style-type: none"> • Read An Approach to Investigating Socio-economic Tussles Arising from Building the Future Internet pg. 145 • Discussion Forum • Article Summary Assignment • Video Case Study Assignment • Project Part 1 Assigned
7	Future Internet Foundations: Security and Trust	6	Trustworthy Clouds Underpinning the Future Internet	<ul style="list-style-type: none"> • Read Trustworthy Clouds Underpinning the Future Internet pg. 209 • Discussion Forum • Article Review Questions • Video Case Study Assignment
8	Future Internet Foundations: Experiments and Experimental Design	3	Testing End-to-End Self Management in a Wireless Future Internet Environment	<ul style="list-style-type: none"> • Read Testing End-to-End Self-Management in a Wireless Future Internet Environment pg. 259 • Discussion Forum • Article Summary Assignment • Video Case Study Assignment • Project Part 1 Due
9	Future Internet Areas: Network	3	Bringing Optical Networks to the Cloud: An Architecture for a Sustainable Future Internet	<ul style="list-style-type: none"> • Read Brining Optical Networks to the Cloud: An Architecture for a Sustainable Future Internet pg. 307 • Discussion Forum • Article Review Questions • Video Case Study Assignment • Receive feedback on Project Part 1
10	Future Internet Areas: Services	3	Fostering a Relationship between Linked Data and the Internet of Services	<ul style="list-style-type: none"> • Read Fostering a Relationship between Linked Data and the Internet of Services pg. 351 • Discussion Forum • Article Summary Assignment • Video Case Study Assignment • Project Part 2 Assigned
11	Future Internet Areas: Content	4	Scalable and Adaptable Media Coding Techniques for Future Internet	<ul style="list-style-type: none"> • Read Scalable and Adaptable Media Coding Techniques for Future Internet pg. 381 • Discussion Forum • Article Review Questions • Video Case Study Assignment

12	Future Internet Applications	2	Smart Cities at the Forefront of the Future Internet	<ul style="list-style-type: none">• Read Smart Cities at the Forefront of the Future Internet• Discussion Forum• Article Summary Assignment• Video Case Study Assignment• Project Part 2 Due
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