## Course Syllabus

<table>
<thead>
<tr>
<th>Instructor:</th>
<th>Steven R. Baxter</th>
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<tbody>
<tr>
<td>Phone:</td>
<td>801-594-2917</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:sbaxter@mail.weber.edu">sbaxter@mail.weber.edu</a></td>
</tr>
<tr>
<td>Office Hours:</td>
<td>By Appointment</td>
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| Text: | *Wireshark Network Analysis*
  The Official Wireshark Certified Network Analyst Study Guide - 2nd Edition
  Laura Chappell

### Course Overview
This course provides a framework for practical analysis of various network protocols using the Wireshark packet analyzing software. It will examine protocols in detail and describe how protocols function. It will cover IP addressing, routing, and how data move through a network from end to end. In depth analysis of traffic patterns will facilitate a distinct understanding of normal network traffic and abnormal problematic traffic as well as well known attack signatures.

### Class Structure
Class will consist of discussions, in-class lab work, lectures, homework assignments presentations and exams. Questions, comments and thought provoking inquiries are strongly encouraged. There is a lot of reading for this class and students are expected to read the related course material prior to that week’s lectures and discussions.

### Assignments and Presentations
Assignments will generally be assigned on Thursday and due the following Tuesday. Assignments will consist of analyzing packet captures and answering questions for the related material. Students are also responsible to give a presentation in class on a network analysis or protocol related topic and to evaluate other student presentations. Students must get approval for their chosen topic prior to their scheduled presentation date.

Assignments may be turned in up to one week late with a 50% penalty.
Quizzes and Exams
Weekly quizzes will cover both in class lectures and reading material. Students are strongly encouraged to complete the weekly assignments to prepare for the quizzes. Quizzes will generally be given on Tuesdays at the first of class. There will be two exams for this class, one midterm and one final. Both are comprehensive.

Quizzes and exams may only be taken on the days given unless arrangements are made prior to the date given.

Allotted Time
You should anticipate spending two to three hours of study per week for each credit hour of a university course. Computer and programming classes typically require time in the upper range.

Students needing special accommodations
Please notify the Disability Resource Center at the WSU Ogden campus at (801-626-6413) or at SLCC’s DRC at (801-957-4659) immediately of any special needs or disabilities you may have. They will make arrangements with your instructor(s) to ensure accommodations are met.

Grading
Assignments: 40%
Weekly Quizzes: 10%
Presentation: 10%
Midterm Exam: 20%
Final Exam: 20%

Ethical Conduct
Students are expected to maintain academic ethics and integrity in regards to performing their own work. Any form of academic dishonesty (cheating, plagiarism, etc.) will not be tolerated. Academic dishonesty is prohibited as detailed in the WSU University Catalog and Student Handbook. **Department policy dictates that any verifiable evidence of student academic cheating, as defined and determined by the instructor, will result in: 1) an automatic failing grade for the class and 2) a report to the Dean of Students that will include the student's name and a description of the student's dishonest conduct.**
<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Standard grading will apply:</th>
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<tbody>
<tr>
<td>A</td>
<td>94-100</td>
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<tr>
<td>A-</td>
<td>90-93</td>
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<tr>
<td>B+</td>
<td>87-89</td>
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<td>B</td>
<td>84-86</td>
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<td>B-</td>
<td>80-83</td>
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<td>C+</td>
<td>77-79</td>
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<td>C</td>
<td>74-76</td>
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<td>C-</td>
<td>70-73</td>
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<td>D+</td>
<td>67-69</td>
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<td>D</td>
<td>64-66</td>
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<tr>
<td>D-</td>
<td>60-63</td>
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<td>E</td>
<td>59 or below.</td>
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<thead>
<tr>
<th>Schedule</th>
<th>abdomen-Introduction to Wireshark</th>
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<tr>
<td>Week 1: (Aug 27, 29)</td>
<td>- No Class - Labor Day, Capture, Filter and Reassemble Traffic</td>
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<td>Week 2: (Sep 3, 5)</td>
<td>- Preferences, Time and Statistics</td>
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<td>Week 3: (Sep 10, 12)</td>
<td>- DNS, ARP and IPv4 Traffic</td>
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<td>Week 4: (Sep 17, 19)</td>
<td>- IPv6, ICMP and UDP Traffic</td>
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<td>Week 5: (Sep 24, 26)</td>
<td>- TCP Traffic</td>
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<td>Week 6: (Oct 1, 3)</td>
<td>- Graphing IO, DHCP, HTTP Traffic</td>
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<td>Week 7: (Oct 8, 10)</td>
<td>- Review and Midterm Exam</td>
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<td>Week 8: (Oct 15, 17)</td>
<td>- FTP, SMTP and WLAN Traffic</td>
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<td>Week 9: (Oct 22, 24)</td>
<td>- VoIP Traffic, Baseline and Performance Issues</td>
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<td>Week 10: (Oct 29, 31)</td>
<td>- Network Forensics and Discovery Tools</td>
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<tr>
<td>Week 11: (Nov 5, 7)</td>
<td>- Routing Labs and Analyzing Suspect Traffic</td>
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<td>Week 12: (Nov 12, 14)</td>
<td>- Lab Work, Presentations</td>
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<tr>
<td>Week 13: (Nov 19, 21)</td>
<td>- Presentations, Thanksgiving - No Class</td>
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<tr>
<td>Week 14: (Nov 26, 28)</td>
<td>- Review and Final Exam</td>
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