

<b>Course Syllabus</b>	<b>EECS 4520 - Advanced Systems Programming</b>
<b>Credits &amp; Contact hours</b>	4 credit hours & four 50-minute lecture contact hours per week
<b>Coordinator</b>	Dr. Jerry Heuring
<b>Textbook</b>	W. Richard Stevens; Stephen A. Rago, "Advanced Programming in the UNIX® Environment: Third Edition", Addison-Wesley Professional, 2013.
<b>Course Information</b>	<p>Pertinent concepts of systems programming. Topics covered include: synchronization, distributed programming models, kernel design, peripheral handling, file systems and security history and methods.</p> <p>Prerequisite: EECS 3540</p> <p>Elective course</p>
<b>Topics</b>	<ol style="list-style-type: none"> <li>1. I/O libraries</li> <li>2. System information</li> <li>3. File System manipulation</li> <li>4. IPC facilities</li> <li>5. Asynchronous I/O</li> <li>6. Networking</li> <li>7. Daemons</li> <li>8. Threads</li> <li>9. Process Creation</li> <li>10. File Locking</li> <li>11. MPI Basics</li> </ol>