

# CSci 780: Advanced Software Engineering Schedule

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| Wed 8/27   | Course Overview, Topic Overview, Group Assignments, Topic Assignments  | Coppit  |
| Fri 8/29   | Mary Shaw, " <a href="#">Writing Good Software Engineering Research Papers</a> ," <i>Proceedings of the 25th International Conference on Software Engineering</i> , Portland, Oregon, IEEE Computer Society, 2003, pp. 726-736.<br><br>Roy Levin and David D. Redell, " <a href="#">An Evaluation of the Ninth SOSP Submissions or How (and How Not) to Write a Good Systems Paper</a> ," <i>ACM SIGOPS Operating Systems Review</i> , Vol. 17, No. 3 (July, 1983), pages 35-40. | Coppit  |
| Wed 9/3  | W.W. Gibbs, " <a href="#">Software's Chronic Crisis</a> ," <i>Scientific American</i> , pages 72-81, September, 1994.  | Coppit  |
| Fri 9/5  | N.G. Leveson and C.S. Turner, " <a href="#">An Investigation of the Therac-25 Accidents</a> ," <i>Computer</i> , vol. 26, no. 7, pages 18-41, July 1993.<br><br>John Schwartz, " <a href="#">Computer Program That Analyzed Shuttle Was Misused, Engineer Says</a> ," <i>New York Times</i> , August 25, 2003.   | Hewett  |
| <b>Mon 9/8</b>                                   | Fred Brooks, " <a href="#">No silver bullet: Essence and accidents of software engineering</a> ," <i>IEEE Computer</i> , 20(4):10-19, April 1987. [Dagstuhl] [In MMM as well]  | Coppit  |
| Wed 9/10   | Parnas, D., " <a href="#">On the criteria to be used in decomposing systems into modules</a> ," <i>CACM</i> 15(2), 1053-1058, 1972. [Dagstuhl]   | Liu     |
| Fri 9/12   | <b><i>Class rescheduled</i></b>  |         |
| Wed 9/14   | <b><i>Class rescheduled</i></b>  |         |
| Fri 9/19   | <b><i>Hurricane Isabel</i></b>   |         |
| Wed 9/24   | <b><i>Hurricane Isabel</i></b>   |         |
| Fri 9/26   | <b><i>Hurricane Isabel</i></b>   |         |
| <b>Mon 9/29</b>                                  | David L. Parnas, " <a href="#">Designing Software for Ease of Extension and Contraction</a> ," <i>IEEE Trans. on Software Engineering</i> , 5(2), March 1979, p. 128-138. [ICSE]   | Coppit  |
| Wed 10/1<br><b><i>Proposal Abstracts Due</i></b> | K. Sullivan, W. G. Griswold, Y. Cai, B. Hallen, " <a href="#">The Structure and Value of Modularity in Design</a> ", 8th European Software Engineering Conference; Held Jointly with 9th ACM SIGSOFT Symposium on the Foundations of Software Engineering (ESEC/FSE 2001), September 2001.   | Everett |

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| Fri 10/3   | W.G. Griswold and D. Notkin, " <a href="#">Automated assistance for program restructuring</a> ," <i>ACM TOSEM</i> Vol. 2, (No. 3), 228-69, July 1993.   | Coppit        |
| <b>Mon 10/6</b>                                  | Dawson Engler, David Yu Chen, Seth Hallem, Andy Chou, and Benjamin Chelf, " <a href="#">Bugs as Deviant Behavior: A General Approach to Inferring Errors in Systems Code</a> ," <i>SOSP</i> 2001.   | Painter       |
| Wed 10/8<br><b>Full Proposals Due</b>            | Kiczales, G., Lamping, J., Mendhekar, A., Maeda, C., Videira Lopes, C., Loingtier, J.-M., and Irwin, J., " <a href="#">Aspect-Oriented Programming</a> ," In <i>Proc. of ECOOP</i> , Springer-Verlag (1997).  | Haddox-Schatz |
| Fri 10/10  | David Garlan and Mary Shaw, " <a href="#">An Introduction to Software Architecture</a> ," Tech. Report CMU-CS-94-166 (Also appeared in <i>Advances in Software Engineering and Knowledge Engineering</i> , ed. by V.Ambriola and G.Tortora, World Scientific Publishing Company, New Jersey, 1993.) ( <b>Fall Break Cancelled</b> ) | Coppit        |
| <b>Mon 10/13</b>                                 | Fredrick P. Brooks, <i>The Mythical Man-Month: Essays on Software Engineering, 20th Anniversary Edition</i> , Addison Wesley, Reading, Mass., second edition, 1995.   | Coppit        |
| Wed 10/15  | Michael D. Ernst, Jake Cockrell, William G. Griswold, David Notkin, " <a href="#">Dynamically Discovering Likely Program Invariants to Support Program Evolution</a> ," <i>IEEE Transactions on Software Engineering</i> , 27(2): 99-123 (2001).  | McGregor      |
| Fri 10/17  | David Evans, " <a href="#">Static Detection of Dynamic Memory Errors</a> ," In <i>SIGPLAN Conference on Programming Language Design and Implementation (PLDI '96)</i> , Philadelphia, PA, May 1996  | Curtis-Maury  |
| Wed 10/22  | Barry W. Boehm, " <a href="#">A Spiral Model of Software Development and Enhancement</a> ," <i>IEEE Computer</i> , 21(5), May 1988, p. 61-72.<br>[Dagstuhl]   | Dipalma       |
| Fri 10/24  | R. Linger, " <a href="#">Cleanroom Process Model</a> ," <i>IEEE Software</i> , March 1994.  | Verma         |
| Wed 10/29  | Beck, K., " <a href="#">Embracing Change with Extreme Programming</a> ," <i>IEEE Computer</i> . 32(10), p. 70-77, 1999.   | Thomasson     |
| Fri 10/31<br><b>Mid-Term Project Reports Due</b> | Jeannette M. Wing, " <a href="#">A Specifier's Introduction to Formal Methods</a> ," <i>IEEE Computer</i> , Sept. 1990, p. 8-22.  | Coppit        |
| Wed 11/5   | J.M. Atlee and J.D. Gannon, " <a href="#">State-Based Model Checking of Event-Driven System Requirements</a> ," <i>IEEE Transactions on Software Engineering</i> , 19(1):24-40, January 1993.   | Chung         |

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| Fri 11/7  | M. E. Fagan, " <a href="#">Design and Code Inspections to Reduce Errors in Program Development</a> ," <i>IBM Systems Journal</i> , No. 3, 1976, p. 182-211.  | Painter |
| Wed 11/12   | W. Richards Adrion, Martha A. Branstad, and John C. Cherniavsky, " <a href="#">Validation, verification, and testing of computer software</a> ," <i>ACM Computing Surveys</i> , 14(2):159-192, June 1982.              | Mundra  |
| Fri 11/14   | C. Boyapati, S. Khurshid, and D. Marinov, " <a href="#">Korat: Automated Testing Based on Java Predicates</a> ," <i>International Symposium on Software Testing and Analysis (ISSTA 2002)</i> , Rome, Italy. Jul 2002. | Dutton  |
| Wed 11/19   | <b><i>Class Moved to Monday 11/24</i></b>  |         |
| Fri 11/21   | <b><i>Class Moved to Monday 12/1</i></b>   | Coppit  |
| <b><i>Mon 11/24</i></b><br><b><i>Project Papers Due</i></b> | Tom Demarco, and Timothy Lister, <i>Peopleware: Productive Projects and Teams</i> . Dorset House, 1987.  |         |
| Wed 11/26   | <b><i>Thanksgiving</i></b>   |         |
| Fri 11/28   | <b><i>Thanksgiving</i></b>   |         |
| <b><i>Mon 12/1</i></b>                                      | <b><i>Project Presentations</i></b><br>Haddox-Schatz & Curtis-Maury, Everett & Liu   |         |
| Wed 12/3  | <b><i>Project Presentations</i></b><br>Hewett & Dipalma, Mundra & Dutton   |         |
| Fri 12/5  | <b><i>Project Presentations</i></b><br>Verma & Thomasson, Chung & McGregor   |         |