Software Engineering Topics

Introduction to Software Engineering
   1) Ghezzi et al. [35], chapters 1 and 2
   2) Shooman [78], chapter 1
   3) Sommerville [79], chapter 1

Software Crisis and the Response
   1) Boehm [10] in [33]
   2) Brooks [17] in [33], or [18]
   3) For the response look over Tausworthe [82]
   4) Parnas [64]

Software Life-cycle
   1) Boehm [9]
   2) Tausworthe [82], chaps. 11, 12 and 13
   3) Look at docs. in Bruce & Pederson [19]
   4) Davis et. al. [28]

Documentation
   1) Tenny [83]

Project Management
   1) Jensen and Tonies [46], chapter 2
   2) Thayer et al. [84]
   3) Liu and Horowitz [54]
   4) Cooper [26]
   5) Howes [42]
   6) Scacchi [73]
   7) Bryan and Siegel [20]
   8) Branstad and Powell [16]

Analysis → Requirements Specification
   1) Freeman [32] in [33]
   2) Ross & Schuman [72]
   3) Ross [71]
   4) Boehm et al. [13]
   5) Jalote [45]
   6) Lausen [52]
   7) Meyer [56]

Design → A Detailed Design Solution
   1) Fairley [30], chapter 5
   2) Privitera [69] in [33]
   3) Basili and Reiter [3] in [93]
   4) Mills and Linger [58]
   5) Parnas and Clements in [65] for a contrary view
   6) Card et. al. [24]
   7) Parnas [63], of historical importance

Particular Methodologies for Specification and Design
   1) Gane and Sarson [34]
   2) Cameron [23] on JSD
   3) Ward [86]
   4) Henderson [38] (link to C311 !!)
   5) Heitmeyer [39]
   6) Hayes [37]
7) Kung [50]
8) Ossher [62]
9) Stelovsky and Sugaya [80]

Verification, Validation and Quality Assurance
1) Buckley and Poston [22]
2) Weinberg and Freedman [88]
3) Fairley [30], chapter 8
4) Buckley [21]
5) Weiss and Weyuker [90]
6) Goel [36]
7) Nosek and Schwartz [61]
8) Weiss and Basili [89]

Reviews and Walkthroughs
1) Parnas and Wiess [66]
2) Bisant and Lyle [8]

Planning and Scheduling
1) Pfleeger [67], chapter 2
2) Fairley [30], chapter 2
3) Myers [59] in [93]

Cost Estimation
1) Fairley [30], chapter 3
2) Boehm [12]
3) recommended: Boehm [11]
4) Boehm and Papaccio [14]

Software Complexity and Software Metrics
1) Weyuker [91]
2) Shen, Conte, and Dunsmore [76]
3) Coulter [27]
4) Lind and Vairavan [53]
5) Kafura and Reddy [48]

Testing
1) Pfleeger [67], chaps. 7 & 8
2) Frankl and Weyker [31]
3) Basili and Selby [4]
4) Howden [41]
5) Clarke, Hassell, and Richardson [25]

Configuration Management
1) Bruce & Pederson [19]
2) Bersoff [7]

Particular Development Methodologies
1) Selby, Basili, and Baker [75]

Software Maintenance
1) Fairley [30], chapter 9
2) Schneidewind [74]
3) Bendifallah and Scacchi [6]
4) Narayanaswamy and Scacchi [60]
5) Kafura and Reddy [48]
6) Rombach [70]
7) Yau and Tsai [92]
Reusable Software
1) Jones [47]
2) Kernighan [49]
3) Horowitz & Munson [40]

Staffing and Project Psychology
1) Weinberg [87], chaps. 1, 2, 4, 5, 6
2) Shneiderman [77], chaps. 1 & 3
3) Abdel-Hamid [1]

Philosophy: Is Software Engineering engineering?;
1) Parnas & Clements [65]
2) Basili, Selby & Hutchens [5]
3) Shen, Conte & Dunsmore [76]

Object-Oriented Programming
1) Booch [15]

Software Standards
1) Barnard, Metz, and Price [2]
2) Buckley and Poston [22]
3) Buckley [21]
4) Branstad and Powell [16]

Software Engineering Education
1) Mills et al. [57]