

[NOTE: Please feel free to use the most recent edition of textbooks referenced in this list](#)

[NOTA : Utilisez l'édition la plus récente des manuels cités dans cette liste.](#)

19-Soft-A1 Algorithms & Data Structures

Adam Drozdek, *Data Structures and Algorithms in C++*, Fourth Edition, Cengage Learning, 2013.

19-Soft-A2 Computer Architecture and Operating Systems

David A. Patterson, John L. Hennessy, Morgan Kaufman, *Computer Organization & Design*, 1998.

David A. Patterson, John L. Hennessy, *Computer Organization and Design MIPS Edition: The Hardware/Software Interface*, 2013 edition.

Saltzer and Kaashoek, *Principles of Computer System Design: An Introduction*.

19-Soft-A3 Software Design

Carlo Ghezzi, Mehdi Jazayeri, Dino Mandrioli, *Fundamentals of Software Engineering*, Second Edition, Pearson 2003, ISBN 0-13-305699-6.

Shari Lawrence Pfleeger, Joanne M. Atlee, *Software Engineering*, Third Edition, Pearson 2006, ISBN 0-13-146913-4.

Robert C. Martin, *Agile Software Development, Principles, Patterns, and Practices*, Prentice Hall, 2002.

19-Soft-A4 Real Time Systems

A. Burns, Andy Wellings, *Real-Time Systems and Programming Languages: Ada, Real-Time Java and C/Real-Time POSIX* Addison-Wesely, 2009 ISBN-13: 978-0321417459.

Giorgio Buttazzo, *Hard Real-Time Computing Systems*, Springer ISBN 978-1-4614-0676-1

19-Soft-A5 Requirements and Specifications

Shari Lawrence Pfleeger, Joanne M. Atlee, *Software Engineering*, Third Edition, Pearson 2006, ISBN 0-13-146913-4.

Karl E. Wiegers, *Software Requirements*, Microsoft Press, 1999.

19-Soft-A6 Software Quality Assurance

Daniel Galin, *Software Quality Assurance: From Theory to Implementation*, Pearson, 2003, ISBN-13: 978-0201709452.

19-Soft-A7 Software Development Process

Shari Lawrence Pfleeger, Joanne M. Atlee, *Software Engineering*, Third Edition, Pearson 2006, ISBN 0-13-146913-4.

Carlo Ghezzi, Mehdi Jazayeri, Dino Mandrioli, *Fundamentals of Software Engineering*, Second Edition, Pearson 2003, ISBN 0-13-305699-6.

19-Soft-B1 Advanced Software Design

Bass, L., Clements, P., & Kazman, R., *Software Architecture in Practice*, Third edition, 2012, Reading, MA: Addison-Wesley.

Gorton, I., *Essential Software Architecture*, Second Edition, 2006, Berlin: Springer.

Bernd Bruegge, Allen H. Dutoit, *Object-Oriented Software Engineering*, Second Edition, Pearson 2004.

Joshua Bloch, *Effective java*, Addison-Wesley, ISBN-13: 978-0134685991.

19-Soft-B2 User interface

J. Tidwell, O'Reilly, *Designing Interfaces: Patterns for Effective Interaction Design*, ISBN-13: 978-1449379704.

J. Johnson, Morgan Kaufman, *Designing with the Mind in Mind: Simple Guide to Understanding User Interface Design Guidelines*, ISBN-13: 978-0124079144.

19-Soft-B3 Security

R. J. Anderson, *Security Engineering: A Guide to Building Dependable Distributed Systems*, Second Edition, Wiley, 2008.

19-Soft-B4 Dependable systems

Nancy G. Leveson, *Engineering a Safer World: Systems Thinking Applied to Safety*, 2012, MIT Press, ISBN-13: 978-0262016629.

19-Soft-B5 Software Modeling & Verification (Formal Methods)

V. S. Alagar and K. Periyasamy, Springer-Verlag, *Specification of Software Systems*, 1998, ISBN 0-387-98430-5.

19-Soft-B6 Software Project Management

Not available at this time.

19-Soft-B7 Reverse Engineering, Maintenance & Evolution

Not available at this time.

19-Soft-B8 Distributed Systems

Not available at this time.

19-Soft-B9 Parallel Computing

Not available at this time.

19-Soft-B10 Networking and Communications

B. P. Lathi and Z. Ding, *Modern Digital and Analog Communication Systems*, Fifth edition, Oxford University Press, 2018.

B. A. Forouzan, *Data Communications and Networking*, Fifth edition, McGraw-Hill, 2013.

A. Leon-Garcia and I. Widjaja, *Communication Networks: Fundamental Concepts and Key Architectures*, McGraw-Hill, 2004.

D. Bertsekas and R. Gallager, *Data Networks*, Second edition, Upper Saddle River, NJ: Prentice Hall, 1991.

19-Soft-B11 Process Control Systems

Not available at this time.

19-Soft-B12 Engineering Computation: Numerics

Laurene V. Fausett, *Numerical Methods*, Pearson, 2003.

Singiresu S. Rao, *Applied Numerical Methods for Engineers and Scientists*, Prentice Hall, 2002.

19-Soft-B13 Performance Analysis & Simulation

Mor Harchol-Balter, *Performance Modeling and Design of Computer Systems: Queueing Theory in Action*, Cambridge University Press, 2013, ISBN: 9781107027503.

19-Soft-B14 Safety Critical Systems

Nancy Leveson, *Engineering a safer world*, MIT Press, 2012.

Clifton Ericsson, *Software safety primer*, CreateSpace, 2013.

19-Soft-B15 Artificial Intelligence

Peter Norvig and Stuart J. Russell, *Artificial Intelligence: A Modern Approach*, Pearson, ISBN: 0-13-604259-7.

19-Soft-B17 Programming Languages, semantics and implementation

Benjamin C. Pierce, *Types and Programming Languages*, MIT Press, ISBN 0-262-16209-1.

Daniel P. Friedman and Mitch Wand, *Essentials of Programming Languages*, MIT Press, Third Edition, ISBN-13: 978-0262062794.

Robert Harper, *Practical Foundations for Programming Languages*, Cambridge University Press, Second Edition, ISBN: 9781107150300.

Keith Cooper and Linda Torczon, Morgan Kaufmann, *Engineering: A Compiler*, ISBN-13: 978-0120884780.

19-Soft-B18 Data Visualization

Tamara Munzner, *Visualization Analysis and Design*, CRC Press, 2014, ISBN-13: 978-1466508910.