

Applied Information Technology MS with Software Engineering PBC (SWEN-PBC)-Course Checklist

Software Engineering PBC Required Core Courses (15 units)

- ☐ 1. AIT 600 Information Technology Infrastructure (3 units)
- ☐ 2. AIT 624 Software Engineering Fundamentals (3 units)
- ☐ 3. AIT 641 Software Requirements Engineering (3 units)
- ☐ 4. AIT 642 Software Testing and Maintenance (3 units)
- ☐ 5. AIT 725 Case Studies in Software Engineering* (3 units)

AIT Elective Courses* (18 units) (electives listed on page 2)

- ☐ 1. _____
- ☐ 2. _____
- ☐ 3. _____
- ☐ 4. _____
- ☐ 5. _____
- ☐ 6. _____

AIT-500 Fundamentals of Computer Programming and Data Structures* (6 units) (if necessary will be indicated in admission letter from AIT Program Director and milestone assigned in Student Center)

- ☐ AIT 500 Fundamentals of Computer Programming and Data Structures

OR

- ☐ AIT 500 Not Necessary

Notes

- *AIT 697 Graduate Internship and AIT Case Study courses require special permission for registration, processes for both are outlined in the AIT M.S. Program site on BlackBoard.
- *All AIT graduate students are allowed up to two non-AIT electives, subject to the approval of the Program Director; process for approval outlined in the AIT M.S. Program site on BlackBoard.
- *AIT 500 Fundamentals of Computer Programming and Data Structures cannot be counted towards elective requirements.
- Multiple PBCs can be earned through the completion of additional Case Study courses; Case studies do NOT count as elective courses.

- Awarding of AIT MS and PBC degrees also subject to additional graduation requirements, including but not limited to: Overall GPA of 3.0, 7 year time limit starting with the first course used to fulfil degree requirements, no more than two 500-level courses; See Graduate Catalog for complete details (catalog.towson.edu/graduate)

Applied Information Technology Electives

- ☐ AIT 612 Information Systems Vulnerability and Risk Analysis (3 units)
- ☐ AIT 613 Introduction to Software Security (3 units)
- ☐ AIT 614 Network Security (3 units)
- ☐ AIT 616 Fundamentals of Web Technologies and Development (3 units)
- ☐ AIT 618 Client/Server-side programming on the Web (3 units)
- ☐ AIT 620 Business Data Communications (3 units)
- ☐ AIT 622 Networks Architecture and Protocols (3 units)
- ☐ AIT 628 Information Technology Infrastructure (3 units)
- ☐ AIT 630 Information Technology Project Management (3 units)
- ☐ AIT 632 Database Management Systems (3 units)
- ☐ AIT 641 Software Requirements Engineering (3 units)
- ☐ AIT 642 Software Testing and Maintenance (3 units)
- ☐ AIT 643 Enterprise Architecture (3 units)
- ☐ AIT 644 Health Information Technology (3 units)
- ☐ AIT 645 Healthcare Data Analytics (3 units)
- ☐ AIT 650 Computer & Networks Forensics and Incident Response (3 units)
- ☐ AIT 652 Ethics, Law, and Policy in Cyberspace (3 units)
- ☐ AIT 655 Managing Information Security (3 units)
- ☐ AIT 660 Mobile Device Forensics (3 units)
- ☐ AIT 670 Special Topics in Applied Information Technology (3 units)
- ☐ AIT 697 Graduate Internship** (3 units)
- ☐ AIT 732 Advanced Database Management Systems (3 units)

Recommendations

- Recommended electives for the SWEN-PBC are: AIT 612, AIT 613, AIT 620, AIT 622, AIT 628, AIT 632
- Suggested/Popular non AIT electives include: COSC 757, COSC 760, PRWR 621, PRWR 623