PACE UNIVERSITY
IVAN G. SEIDENBERG
SCHOOL OF COMPUTER SCIENCE
AND INFORMATION SYSTEMS

# MS/SOFTWARE DEVELOPMENT and ENGINEERING*

Name: _____ Phone: (day) _____ (evening) _____

ID: _____ Pace E-Mail: _____

| **PREPARATORY COURSES**** | | **Credits** | **Waived** | **To be Taken** |
|---|---|---|---|---|
| SE 602 | Object-Oriented Development Using Java | 4 | _____ | _____ |

| **CORE REQUIREMENTS** (18 credits): | | | **Grade** | **Semester** |
|---|---|---|---|---|
| SE 616 | Introduction to Software Engineering | 4 | _____ | _____ |
| SE 673 | Software Design Methodologies | 4 | _____ | _____ |
| SE 675 | Requirements Engineering | 3 | _____ | _____ |
| SE 677 | Software Reliability and Quality Assurance | 3 | _____ | _____ |
| SE 679 | Contemporary Software Engineering Theory and Practice | 4 | _____ | _____ |

**RECOMMENDED ELECTIVES** (12 credits):

**Software Engineering Electives**

| | | | | |
|---|---|---|---|---|
| SE 700 | Independent Study | 1-4 | _____ | _____ |
| SE 731 | Mathematical Modeling of Software Artifacts | 3 | _____ | _____ |
| SE 735 | Data and Document Representation and Processing | 3 | _____ | _____ |
| SE 741 | Formal Software Development | 3 | _____ | _____ |
| SE 745 | Concurrent Software Development | 3 | _____ | _____ |
| SE 751 | Software Validation and Verification Techniques | 3 | _____ | _____ |
| SE 760 | Introduction to Human Computer Interaction | 3 | _____ | _____ |
| SE 761 | Human Factors and Usability Metrics | 3 | _____ | _____ |
| SE 765 | Distributed Software Development | 3 | _____ | _____ |
| SE 770 | Software Risk Management | 3 | _____ | _____ |
| SE 780 | Software Development Process Improvement | 3 | _____ | _____ |
| SE 790 | Topics in Software Development/HCI/Software Management | 3 | _____ | _____ |
| SE 796 | Software Research Seminar | 3 | _____ | _____ |

**Other Electives**

| | | | | |
|---|---|---|---|---|
| IS 637 | IS Project Management | 3 | _____ | _____ |
| IS 639 | Information Systems Planning and Policy | 3 | _____ | _____ |
| CS 639 | Mobile Application Development | 3 | _____ | _____ |
| CS 653 | Cryptography and Computer Security | 3 | _____ | _____ |
| IT 660 | Network Security | 3 | _____ | _____ |
| IT 662 | Web and Internet Security | 3 | _____ | _____ |

**CAPSTONE** (6 credits)

| | | | | |
|---|---|---|---|---|
| SE xxx | Advanced Elective | 3 | _____ | _____ |
| SE 785 | Software Development Studio | 3 | _____ | _____ |
| -or- | | | | |
| SE 701 | Software Development Thesis I | 3 | _____ | _____ |
| SE 702 | Software Development Thesis II | 3 | _____ | _____ |
| -or- | | | | |
| SE xxx | Advanced Elective | 3 | _____ | _____ |
| | IEEE Certification** | 3** | _____ | _____ |

**Total Credits** **36**

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**REMARKS** (waivers, special conditions, etc):

_____
**Program Adviser/Date**

**Although competency in programming is required for admission into the program, any student lacking knowledge of the object-oriented paradigm will be required to take SE 602. Credits taken for the preparatory course do not count toward the degree: the grade earned, however, is computed into the student's GPA.*

***IEEE Certification is equivalent to 3 credits of graduate-level course work.*