

Appendix A – CPE Curriculum

Core CPE Coursework (9 Semester Hours) (6 ECE, 3 CPS)

ECE 501 Contemporary Digital Systems	3 Semester Hours
ECE 532 Embedded Systems	3 Semester Hours
ECE 533 Computer Design	3 Semester Hours
CPS 510 Systems Analysis	3 Semester Hours
CPS 536 Operating Systems I	3 Semester Hours
CPS 570 Data Communications	3 Semester Hours

Specialization (9 Semester Hrs. for thesis, 12 Semester Hrs. for non-thesis) (6 ECE, 3 CPS min.)

Embedded Systems:

ECE 506 Microelectronic Devices	3 Semester Hours
ECE 531 Microelectronic Systems	3 Semester Hours
ECE 632 Contemporary Microelectronics	3 Semester Hours

Software Engineering:

ECE 538 Object-Oriented Programming	3 Semester Hours
CPS 512 Systems Design	3 Semester Hours
CPS 522 Software Project Management	3 Semester Hours
CPS 530 Algorithm Design	3 Semester Hours
CPS 542 Database Management Systems	3 Semester Hours
CPS 543 Comparative Languages	3 Semester Hours
CPS 544 Systems Programming I	3 Semester Hours
CPS 552 Discrete Event Simulation Techniques	3 Semester Hours
CPS 560 Computer Graphics	3 Semester Hours
CPS 562 Database Management Systems II	3 Semester Hours
CPS 580 Artificial Intelligence	3 Semester Hours
CPS 581 Advanced Artificial Intelligence	3 Semester Hours
CPS 582 Automata Theory	3 Semester Hours

Operating Systems and Computer Architecture:

ECE 536 Microprocessor Applications	3 Semester Hours
ECE 551 Parallel Computing	3 Semester Hours
ECE 636 Advanced Computer Architecture	3 Semester Hours
ECE 637 Concurrent Processing	3 Semester Hours

Communications and Networking:

ECE 503 Random Processes	3 Semester Hours
ECE 509 Analysis of Linear Systems	3 Semester Hours
ECE 521 Digital Communications I	3 Semester Hours
ECE 522 Digital Communications II	3 Semester Hours
ECE 561 Digital Signal Processing I	3 Semester Hours
CPS 572 Computer Networking	3 Semester Hours

Thesis (6 Semester Hours)

ECE 599 or CPS 599 (Depending on Advisor) Thesis	6 Semester Hours
--	------------------

Technical Electives (6 Semester hours for thesis, 9 Semester Hours for non-thesis)

Courses chosen with approval of advisor	6/9 Semester Hours
TOTAL	30 Semester Hours