### CPSC Upper Level Track

#### Track 1: Algorithms and Theory

- **✓ CSCE 411** Analysis of Algorithms
- ( ) CSCE 433 Formal Languages and Automata
- ( ) CSCE 440 Quantum Algorithms
- ( ) CSCE 442\(^c\) Scientific Programming

#### Track 2: Systems

- ( ) CSCE 410\(^*\)** Operating Systems
- ( ) CSCE 456\(^*\) Real-Time Computing
- ( ) CSCE 462 Microcomputer Systems
- ( ) CSCE 463 Networks & Distributed Prog.
- ( ) CSCE 464 Wireless and Mobile Systems
- ( ) CSCE 465 Computer & Network Security
- ( ) CSCE 469\(^a\) Advanced Computer Architecture

#### Track 3: Software

- ( ) CSCE 431 Software Engineering
- ( ) CSCE 432\(^*\) Programming Language Design
- ( ) CSCE 434 Compiler Design
- ( ) CSCE 435 Parallel Computing
- ( ) CSCE 438 Distributed Objects Programming

#### Track 4: Information and intelligent Systems

- ( ) CSCE 310\(^*\) Database Systems
- ( ) CSCE 420 Artificial Intelligence
- ( ) CSCE 436 Computer-Human Interaction
- ( ) CSCE 441 Computer Graphics
- ( ) CSCE 443 Game Development
- ( ) CSCE 444\(^d\) Structures of Interactive Information
- ( ) CSCE 445 Computers and New Media
- ( ) CSCE 452 Robotics and Spatial Intelligence
- ( ) CSCE 470 Information Storage and Retrieval

**Notes:**
- Students must take CSCE 411 and six additional courses from the list above.
- At least one course from each track must be taken.
- The remaining three courses can be from any track.
- The seventh course also may be from outside of the track for approved options. Options for the seventh course include CSCE 491 (independent research) or co-op/EPICS credits (co-op: ENGR 385; EPICS: ENGR 270, or 470). If co-op/EPICS credits are used exactly 3 credits are required. Fewer than 3 cannot be used and excess credits above 3 cannot be used.
- The required course CSCE 411 (Analysis of Algorithms) counts as one of the courses from the Algorithms and Theory track.
- Prerequisites will still prevail for all courses. Consult the undergraduate catalog for details.
- Approved special topics course (CSCE 489) and graduate courses may be used to fulfill these requirements; each such course will be classified with respect to the tracks; see advisor.
- *This course number is not yet finalized and may change. See the advising office.
- **This course taken before Spring 2009 will not fill this requirement.
- \(^*\)This course is not being taught on a regular basis.