BS-CMPSCI Tracking Form for departmental requirements
For students graduating by May 2012

Name: _______________________ ID#: __________________ Advisor: ___________

Two introductory CS courses

- **121** Problem Solving
  - Term: [ ]
  - Grade: [ ]

- **187** Data Structures
  - Term: [ ]
  - Grade: [ ]

Four core CS courses

- **201** Architecture
  - Term: [ ]
  - Grade: [ ]

- **250** Intro to Computation
  - Term: [ ]
  - Grade: [ ]

- **220** Prog. Methodology
  - Term: [ ]
  - Grade: [ ]

- **240** Reasng Abt Uncert
  - Term: [ ]
  - Grade: [ ]

Four Math courses

- **M131** Calc I
  - Term: [ ]
  - Grade: [ ]

- **M132** Calc II
  - Term: [ ]
  - Grade: [ ]

- **M233** Calc III or Stats I
  - Term: [ ]
  - Grade: [ ]

- **M235** Linear Algebra
  - Term: [ ]
  - Grade: [ ]

Eight CS electives. GenCompSci (below) or choose a subplan.

- Software Engineering
- Security & Privacy
- Robotics, Vision, and Graphics
- Artificial Intelligence
- Computer Architecture
- Networking
- Software Systems
- Prog. Lang. & Compilers
- Theory of Computation
- Search & Data Mining

Minimum 2.0 cumulative GPA in all courses applied to major; Pass/Fail not allowed in major.

8 credits of science courses:

- **BIOL** 100, 101;
- **CHEM** 111/2, 121/2;
- **GEO** 101 with lab;
- **PHY** 151/3, 152/4, 181/3, 182/4

Term: [ ]
Grade: [ ]

*Students graduating by 5/2012 can substitute 383 for 240 and 287 for 220.*

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** If 383 is substituted for 240, another CS elective is required in GENCOMPSCI and other subplans that require 383.

University, GenEd, and Foreign Language requirements should be checked on SPIRE.
This form is for guidance only and does not represent official policy.

Revised Sep-7-09
Software Engineering SOFTENGIN
Five required courses:
- 311 Algorithms
- 320 Software Engineering
- 520 SE-Synthesis
- 521 SE-Analysis & Eval
- 377 Operating Systems

Any two courses from the following:
- 325 Usability
- 365 Digital Forensics
- 401 Formal Lang. Theory
- 410 Compilers
- 445 Information Systems
- 453 Computer Networks
- 460 Intro to Security
- 513 Logic in CS
- 529 SE Proj Mgmt
- 575 Comb. & Graph Thry
- 499Y or 496 (see note)

One CS elective ≥ 300 (not 305)
1)__________________

Artificial Intelligence ARTIFINTEL
Four required courses:
- 311 Algorithms
- 320 Software Engineering
- 383 Artificial Intelligence
- 377 Operating Systems

Any two courses from the following:
- 370 Computer Vision
- 403 Robotics
- 503 Emb. Systems
- 563 Advanced AI
- 589 Machine Learning
- 683 Advanced AI

Two CS electives ≥ 300 (not 305)
1)__________________ 2)__________________
Note: At least 3 of the 8 track courses must be ≥ 400 level

Theory of Computation THEORYCOMP
Four required courses:
- 311 Algorithms
- 320 Software Engineering
- 401 Formal Lang Theory
- 377 Operating Systems

Any one course from the following:
- 445 Information Systems
- 453 Computer Networks
- 535 Architecture

Any two courses from the following:
- 513 Logic in CS
- 575 Comb. & Graph Theory
- 601 Computation Theory
- 611 Advanced Algorithms
- 499Y or 496 (see note)
- MATH 411 Int Abstract Alg I

One CS elective ≥ 300 (not 305)
1)__________________

Robotics, Vision, & Graphics ROBVISGRPH
Six required courses:
- 311 Algorithms
- 320 Software Engineering
- 370 Computer Vision
- 403 Intro to Robotics
- 473 Computer Graphics
- 377 Operating Systems

Any one course from the following:
- 491K Adv. Image Synth
- 503 Emb. Systems
- 603 Robotics
- 691G Comp. Geometry

One CS elective ≥ 300 (not 305)
1)__________________

Computer Architecture COMPARCH
Five required courses:
- 311 Algorithms
- 320 Software Engineering
- 535 Architecture
- 635 Modern Architecture
- 377 Operating Systems

Any two courses from the following:
- 401 Formal Language Theory
- 410 Compilers
- 445 Information Systems
- 453 Computer Networks
- 520 SE-Synthesis I
- 530 Programming Languages
- 610 Compiler Techniques
- 653 Adv. Computer Networks
- 677 Adv. Operating Systems
- 499Y or 496 (see note)
- ECE 353 Digital Logic I
- ECE 354 Digital Logic II
- ECE 558 Architecture

One CS elective ≥ 300 (not 305)
1)__________________ specifically not on the list above.

Programming Languages & Compilers PROGLANCMP
Four required courses:
- 311 Algorithms
- 377 Operating Systems
- 410 Compilers
- 530 Prog. Languages

Any two courses from the following:
- 320 Software Engineering
- 445 Information Systems
- 535 Architecture
- 499Y or 496 (see note)

Two CS electives ≥ 300 (not 305)
1)__________________ 2)__________________

Search & Data Mining SRCHDATMIN
Six required courses:
- 311 Algorithms
- 320 Software Engineering
- 348 / 591Y Know. Discovery
- 445 Information Systems
- 446 Search Engines
- 585 Natural Lang Processing
- 377 Operating Systems

One CS elective ≥ 300 (not 305)
1)__________________

Security & Privacy SECURITY
Three required courses:
- 311 Algorithms
- 377 Operating Systems
- 460 Intro to Security

Any one course from the following:
- 445 Information Systems
- 453 Computer Networks

Any two courses from the following:
- 365 Digital Forensics
- 466 Appl. Crypto
- 691CC Adv. Security

Two CS electives ≥ 300 (not 305)
1)__________________ 2)__________________

Networking NETWORKING
Four required courses:
- 311 Algorithms
- 377 Operating Systems
- 453 Computer Networks
- 591G Networking Lab

Any two courses from the following:
- 320 Software Engineering
- 445 Information Systems
- 460 Intro to Security
- 466 Appl Crypto
- 653 Adv. Computer Networks

Two CS electives ≥ 300 (not 305)
1)__________________ 2)__________________

Software Systems SOFTSYSMT
Four required courses:
- 311 Algorithms
- 320 Software Engineering
- 377 Operating Systems
- 445 Information Systems

Any two courses from the following:
- 325 Usability
- 453 Computer Networks
- 460 Intro to Security
- 466 Appl Crypto
- 535 Architecture
- 591EE OS Impl.
- 677 Operating Systems

Two CS electives ≥ 300 (not 305)
1)__________________ 2)__________________

NOTE: all course numbers refer to CMPSCI courses unless designated otherwise. Only 3 credits of 499Y count towards degree. All courses x90–x99 require approval towards degree.