Two introductory CS courses

121 121 Problem Solving
Term: Grade:

187 187 Data Structures
Term: Grade:

Four core CS courses

201 201 Architecture
Term: Grade:

250 250 Intro to Computation
Term: Grade:

220 220 Prog. Methdgy
Term: Grade:

240 240 Reasng Abt Uncert
Term: Grade:

Four Math courses

M131 131 Calc I
Term: Grade:

M132 132 Calc II
Term: Grade:

M233 233 Calc III or Stats I
Term: Grade:

M235 235 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
- Programming Lang. & Compilers
- Theory of Computation
- Search & Data Mining

305 305 Social Issues
Term: Grade:

377 377 Operating Systems
Term: Grade:

311 311 Algorithms
Term: Grade:

383 383 Artificial Intelligence
Term: Grade:

GenCompSci

6 credits ≥ 300
9 credits ≥ 400
CS courses only

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:

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

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
Four required courses:

  311 Algorithms
  320 Software Engineering
  520 SE-Synthesis
  521 SE-Analysis & Eval

Any two courses from the following:

  325 Usability
  365 Digital Forensics
  377 Operating Systems
  401 Formal Lang. Theory
  410 Compilers
  445 Information Systems
  453 Computer Networks
  460 Intro to Security
  513 Logic in CS
  529 SE Project Mgmt
  575 Comb. & Graph Thry
  499Y or 496 (see note)

Two CS electives ≥ 300 (not 305)

1) __________ 2) __________

Artificial Intelligence ARTIFINTEL
Three required courses:

  311 Algorithms
  320 Software Engineering
  383 Artificial Intelligence

Any two courses from the following:

  370 Computer Vision
  403 Robotics
  503 Emb. Systems
  589 Machine Learning
  683 Advanced AI

Three CS electives ≥ 300 (not 305)

1) __________ 2) __________ 3) __________

Note: At least 3 of the 8 track courses must be ≥ 400 level

Theory of Computation THEORYCOMP
Three required courses:

  311 Algorithms
  320 Software Engineering
  401 Formal Lang Theory

Any one course from the following:

  377 Operating Systems
  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

Two CS electives ≥ 300 (not 305)

1) __________ 2) __________

Robotics, Vision, & Graphics ROBVISGRPH
Five required courses:

  311 Algorithms
  320 Software Engineering
  370 Computer Vision
  403 Intro. to Robotics
  473 Computer Graphics

Any one course from the following:

  491K Adv. Image Synth
  503 Emb. Systems
  603 Robotics
  691G Comp. Geometry

Two CS electives ≥ 300 (not 305)

1) __________ 2) __________

Computer Architecture COMPARCH
Four required courses:

  311 Algorithms
  320 Software Engineering
  535 Architecture
  635 Modern Architecture

Any two courses from the following:

  377 Operating Systems
  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 354 Digital Logic I
  ECE 354 Digital Logic II
  ECE 558 Architecture

Two CS electives ≥ 300 (not 305), one of which is specifically not on the list above.

1) __________ 2) __________

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

Two CS electives ≥ 300 (not 305)

1) __________ 2) __________

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 SOFTSYSTMS
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 Applied 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.