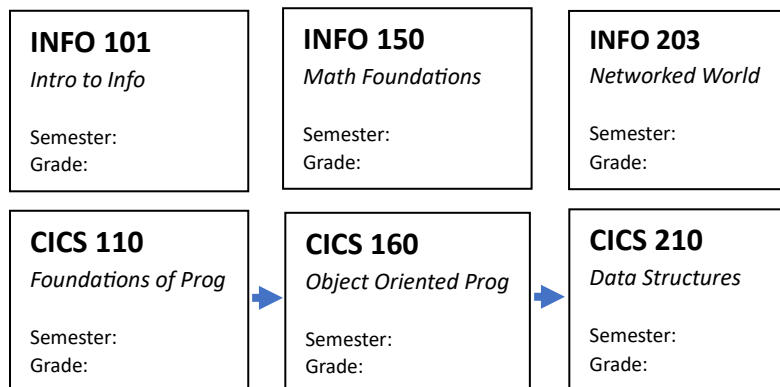


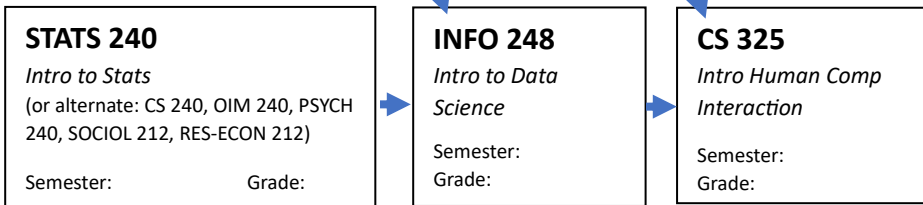
10/18/2024

BS Tracking Form for Informatics Major Requirements (for students starting fall 2023 and later)

Informatics Core Requirements : Students must complete all Core Requirements



- Overall GPA of 2.0 is required for major courses
- Pre-reqs must be completed with a grade of C or better
- No class counted for the major may be taken pass/fail
- Informatics majors must complete 60 units within CICS/CNS
- Informatics majors may be CS minors but may NOT double major in CS
- Two of: INFO 248, CS 345, DS Elective, STATS 240 must be taken at UMass Amherst
- At least 4 of the 6 electives must be taken at UMass Amherst
- No single course can fulfill two different major requirements. For example, INFO 348 cannot fulfill data science concentration requirement AND count as an elective requirement for DS concentration
- Students can propose an elective, but it must be approved by the program



Integrative Exp

Primary Majors:
INFO 490PI* (pre-reqs are CICS 210 and INFO 248)
OR CS 326* (pre-reqs are CS 220/CS 230)
Secondary Majors: IE in primary major

Semester: _____ Grade: _____

Junior Year Writing

Primary Majors: CICS 305 (Pre-req INFO 248)
Secondary Majors: JYW in primary major

Semester: _____ Grade: _____

Concentration Requirements: Choose Data Science OR Health & Life Sciences

Data Science

INFO 348**

Semester: _____ Grade: _____

+

CS 345**

Semester: _____ Grade: _____

+

One DS Elective:

- STATS 315** OR
- STATS 501 OR
- OIM 350**

Semester: _____ Grade: _____

Health and Life Sciences

Pick Three:

INFO 324**

Semester: _____ Grade: _____

CS 328**

Semester: _____ Grade: _____

PUBHLTH 490Z or
PUBHLTH 460****

Semester: _____ Grade: _____

INFO 390C or
BIO 379H** or
BIO 476 (formerly 597GE)****

Semester: _____ Grade: _____

+

One Ethics course:

PHIL 160 OR
 PHIL 164 OR
 CS 508** OR
 PUBHLTH 497**
 OR
 HISTORY 264

Semester: _____ Grade: _____

Informatics Electives (all students choose 6):

Please see reverse side for elective options

**Primary Info majors:
INFO 490PI or CS 326;
Secondary majors: Info Elective*

| | | |
|--|--|--|
| <p>Course: _____</p> <p>Semester: _____ Grade: _____</p> <p>-----</p> <p><i>Elective pre-reqs (if any):</i></p> | <p>Course: _____</p> <p>Semester: _____ Grade: _____</p> <p>-----</p> <p><i>Elective pre-reqs (if any):</i></p> | <p>Course: _____</p> <p>Semester: _____ Grade: _____</p> <p>-----</p> <p><i>Elective pre-reqs (if any):</i></p> |
| <p>Course: _____</p> <p>Semester: _____ Grade: _____</p> <p>-----</p> <p><i>Elective pre-reqs (if any):</i></p> | <p>Course: _____</p> <p>Semester: _____ Grade: _____</p> <p>-----</p> <p><i>Elective pre-reqs (if any):</i></p> | <p>Course: _____</p> <p>Semester: _____ Grade: _____</p> <p>-----</p> <p><i>Elective pre-reqs (if any):</i></p> |

***Check SPIRE for most updated pre-requisite information

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BS Tracking Form for Informatics Major Requirements (for students starting fall 2023 and later)

Pre-Approved Informatics Electives (choose 6):

- All electives count for both concentrations; electives well suited to Health and Life Sciences noted with HLS.
- Posted pre-reqs are waived for informatics majors ONLY for those elective courses that are underlined, although most of these classes do require "Junior" status. For all other courses, posted pre-requisites as listed in Spire apply.

BIOL 379H: Genomics and Bioinformatics (HLS)
BIOL 383H: Gene and Genome Analysis (HLS)
BIOL 478: Human Genome Analysis (formerly BIOL 497G) (HLS)
BIOL 479: Genomics and Data Science (formerly BIOL 497D) (HLS)
BIOL 597GE: Evolutionary Genomics & Bioinformatics (HLS)
BIOSTATS 535: Data Handling and Analysis Using SAS
BIOSTATS 683: Intro to Causal Inference in a Big Data World (HLS)
BIOSTATS 690T: Applied Statistical Genetics (HLS)
BIOSTATS 690TO: Topics in Biostatistics and Data Science (HLS)
CLASSICS 390STA: Visualizing Archaeological Data
CLASSICS 396A (IS): Poggio Civiate Field School
COMM 408: Survey of Digital Behavioral Data (formerly COMM 497DB)
COMM 540: Internet Gov & Information Policy (formerly COMM 497GB)
COMPSCI 320: Software Engineering
COMPSCI 326: Web Programming
COMPSCI 328: Mobile Health Sensing and Analytics (HLS)
COMPSCI 365: Digital Forensics
COMPSCI 383: Artificial Intelligence
COMPSCI 389: Intro to Machine Learning
COMPSCI 420: Software Entrepreneurship
COMPSCI 426: Scalable Web Systems (formerly COMPSCI 490STA/497S)
COMPSCI 490U: Introduction to User Experience Research
COMPSCI 508: Ethical Considerations in Computing (req CICS 305)
COMPSCI 571: Data Visualization and Exploration
ECE 579: Math Tools for Data Science & Machine Learning
ECON 309: Game Theory
ECON 337: Economics in the Age of Big Data
ECON 452: Econometrics
ENGLISH 379: Professional Writing course
ENGLISH 391C: Web Design (email instructor to join waiting list)
ENGLISH 491DS: Data Science for the Humanities (Seminar)
GEOGRAPH 493W / NRC 588 (formerly 597GW): Web GIS (Seminar)

GEOGRAPH 484 (formerly 497A): Geographic Computation
INFO 324: Intro to Clinical Health Informatics (HLS)
INFO 348: Data Analytics with Python
INFO 390C: Introduction to Computational Biology and Bioinformatics
INFO 490C: Intro to Social and Cultural Analytics
INFO 490PI: Personal Health Informatics
LEGAL 342: Machine Bias and Law
MARKET 413: Social Media and Marketing Analytics
MARKET 455: Internet Marketing
MATH 456: Mathematical Modeling
MATH 551: Intro to Scientific Computing
MATH 605: Probability Theory I
NRC 585: Intro to Geographic Information Systems
OIM 350: Business Intelligence and Analytics
OIM 454: Advanced Business Analytics
PUBHLTH 413: Intro to Epi Mgmt & Analysis (formerly 490KR) (HLS)
PUBHLTH 460: Telling Stories with Data: Stats, Modeling, & Visualization (HLS)
PUBHLTH 490Z: Statistical Modeling for Health Data Science (HLS)
PUBHLTH 497R: Research Ethics (formerly PUBHLTH 497) (HLS)
SOCIO 313: Survey Design and Analysis (HLS)
SOCIO 351: Social Network Analysis
STATISTC 315: Statistics I (formerly STATISTC 515)
STATISTC 501: Meth Applied Stats
STATISTC 516: Statistics II
STATISTC 525: Regression & Analysis of Variance
STATISTC 526: Design of Experiment