Informatics Degree Requirements Course Planning Form (students entering Spr ‘21 to Fall ‘23)

Informatics Core Requirements

All INFO majors must complete the core requirements, regardless of concentration

*INFO 101 may also be satisfied by a score of 4 or higher on the AP CSP exam

**STAT 240 Alternates: CS 240, OIM 240, PSYCH 240, SOCIOL 212 or RES-ECON 212

JYW Alternates: Any major’s certified JYW course can be substituted for 305. JYW must be satisfied at UMass Amherst. Double majors with INFO as their secondary major must take the JYW for their primary major.

Choose a Concentration

Data Science Concentration

Pick One from these Three Options:
1. STAT501 Methods of Applied Stats
2. STAT515 Statistics I
3. OIM350: Business Intelligence and Analytics

Also Complete:
CS 345: Practical Applications of Data Management
AND
INFO 348: Predictive Analytics with Python

Health and Life Sciences Concentration

Pick Three from these Four Options:
1. INFO 324 Intro to Clinical Health Informatics
2. BIO 379H: Genomics and Bioinformatics OR BIOL 597GE Evolutionary Genomics & Bioinformatics (Req Bio 152)
3. PUBHLTH 490Z: Statistical Modeling for Health Data Science OR PUBHLTH 460: Telling Stories with Data
4. CS 328: Mobile health sensing and analytics

AND Complete one of the following ethics classes: PHIL 160: Intro to Ethics; PHIL 164: Medical Ethics, CS 508: Ethical Considerations in CS (req CICS 305); PUBHLTH 497: Research Ethics; HISTORY 264 History of HealthCare & Medicine in the U.S.

Pick One from these Three Options:
1. STAT501 Methods of Applied Stats
2. STAT515 Statistics I
3. OIM350: Business Intelligence and Analytics

Also Complete:
CS 345: Practical Applications of Data Management
AND
INFO 348: Predictive Analytics with Python

Electives – Choose 6. Proposed electives must be approved by the program via https://tinyurl.com/InfoElective

All electives count for both concentrations; electives well suited to Health and Life Sciences noted with HLS

Elective Options (at least 4 must be taken at UMass Amherst; See advisor for seats in underlined courses.)

BIO 379H: Genomics and Bioinformatics (HLS)
BIO 383H: Gene and Genome Analysis (HLS)
BIO 497D; BIO 497G (HLS)
BIO 597GE Evolutionary Genomics & Bioinformatics (HLS)
BIOSTATS 683; BIOSTATS 690T; BIOSTATS 690TO (HLS)
COM 408: Survey of Digital Behavioral Data
COM 540: Internet Governance & Information Policy
COMPSCI 328: Mobile health sensing and analytics (HLS)
COMPSCI 365: Digital Forensics (requires CS 230)
COMPSCI 383: Artificial Intelligence (requires STAT 515)
COMPSCI 490STA: Scalable Web Systems
COMPSCI 508: Ethical Considerations in CS (req CICS 305)
COMPSCI 571: Data Visualization and Exploration
ECON 309: Game Theory
ECON 452: Econometrics

Additional Requirements:

- An overall GPA of 2.0 is required for major courses;
- No class counted for the major may be taken pass/fail;
- No one course can be used to satisfy multiple INFO major requirements;
- Informatics majors must complete a total of 60 science credits;
- 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.