B.S. in COMPUTER AND INFORMATION SCIENCE  (120 credits)  Date ________________

Information System Concentration (CIS-INSY)

Curriculum Sheet for Catalog Year Winter 2008

CECS DISTRIBUTION Requirements  21

ENGLISH COMPOSITION  (6)
Composition Placement Exam required, and
Take both COMP 105 (3) & COMP 270 (3)

ECONOMICS  (3)
ECON 201 (3) Macroeconomics

HUMANITIES  (See Notes * & **)  
Two courses, 100- to 400-level, 6 credits, from
AFRICAN/AFRICAN-AMERICAN (AAAS)
AAAS 239, 275, 333, 385, 389, 469, 470
ART HISTORY (ARTH)
COMMUNICATIONS (COMM)
COMM 220, 300/400-level
COMPARATIVE LITERATURE (COML)
ENGLISH (ENGL)
FILM STUDIES (FILM or JASS)
FOREIGN LANGUAGE
MUSIC HISTORY (MHIS)
PHILOSOPHY (PHIL)
SCIENCE/TECH STUDIES (STS)
307, 312, 360, 403, 410, 485, 488
WOMEN/GEND STUDIES (WGST)
303, 385, 386, 387, 416, 425, 445, 487

BEHAVIORAL/SOCIAL SCIENCES  **
Two courses, 100- to 400-level, 6 credits, from
AFRICAN/AFRICAN-AMERICAN (AAAS)
AAAS 106, 275, 316, 320, 322, 325, 345, 349, 368, 369, 371, 386, 387, 403, 404
ANTHROPOLOGY (ANTH)
ECONOMICS (ECON)
ECON 202, ECON 300-level only
GEOGRAPHY (GEOG)
GEOG 201, 205, GEOG 300-level only
HISTORY (HIST)
POLITICAL SCIENCE (POL)
PSYCHOLOGY (PSYC)
SCIENCE/TECH STUDIES (STS)
300, 305, 308, 309, 321, 325, 340, 345, 349, 365, 374, 383, 385, 386, 409, 421, 430, 441, 442, 464
SOCIOLOGY (SOC)
WOMEN/GEND STUDIES (WGST)
WGST 303, 325, 326, 338, 362, 370, 405, 406, 407, 420, 446, 455, 3955

Mathematics, Sciences, & Cognates  39

MATHEMATICS & STATISTICS  (18)
MATH 115 (4) Calculus I
MATH 116 (4) Calculus II
MATH 275 (4) Discrete Structures I
IMSE 317 (3) Probability/Statistics
MATH 227 (3) Linear Algebra

LABORATORY SCIENCE Sequence  (8)
Two courses, 8 credits, in 1 sequence from:
BIOL 130 (4) and BIOL 140 (4)
or CHEM 134 (4) and CHEM 136 (4)
or CHEM 144 (4) and CHEM 146 (4)
or GEOL 118 (4) and GEOL 218 (4)
or PHYS 125 (4) and PHYS 126 (4)
or PHYS 150 (4) and PHYS 151 (4)

BUSINESS & OPERATIONS RESRCH
The following four courses, 13 credits:
ACC 298 (3) Accounting I
OB 354 (3) Organizational Behavior
IMSE 3005 (4) Operations Research
ENGR 400 (3) Applied Bus Techniques

CIS Courses & Electives  60

CIS CORE  – 7 courses (28 credits)
CIS 150 (4) Computer Science I
CIS 200 (4) Computer Science II
CIS 310 (4) Computer Organization
& Assembly Language
CIS 350 (4) Data Structures
CIS 375 (4) Software Engineering
CIS 427 (4) Computer Networks
& Distributed Systems
CIS 450 (4) Operating Systems

CIS-INSY Programming Lang  (3 credits)
One of the following two courses:
CIS 294 (3) Visual Basic
CIS 296 (3) Java Programming

CIS-INSY Required  – 5 courses (15 credits)
CIS 421 (4) Database Systems
CIS 425 (4) Information Systems [or 4261]
CIS 476 (3) Softw Arch/Design Patterns
[or old CIS 4262 (4)]
CIS 4951 (2) Design Seminar I
CIS 4952 (2) Design Seminar II

CIS-INSY Electives  (7 credits)
Seven (7) credits from the following:
CIS 285 (3) Software Engr Tools
CIS 297 (3) C# Programming
CIS 306 (4) Discrete Structures II
CIS 376 (4) Software Engineering II
CIS 381 (3) Industrial Robotics
CIS 387 (4) Digital Forensics I
CIS 400 (4) Programming Langs
CIS 405 (3) Algorithm Analy/Design
CIS 423 (3) Decision Support
& Expert Systems
CIS 435 (3) Web Technology
CIS 437 (3) Advanced Networking
CIS 447 (3) Compt & Network Security
CIS 451 (3) Computer Graphics
CIS 452 (3) Computer Animation
CIS 467 (4) Digital Forensics II
CIS 474 (3) Compiler Design
CIS 479 (3) Artificial Intelligence
CIS 487 (3) Computer Game Design I
CIS 488 (3) Computer Game Design II
CMM 404 (3) Dynamical Systems
CMM 472 (3) Numerical Analysis
CMM 473 (3) Matrix Computation
ECE 372 (4) Microprocessors
ECE 473 (4) Embedded Systems

GENERAL ELECTIVES  (7 credits)
See note to left **

** Avoid NO-CREDIT courses.
 NO-CREDIT courses posted by 2000 EC and
listed at end of CECS Handbook:
www.engin.umd.umich.edu/SRA/pdf/
Student_Handbook.pdf  <link>

NO-CREDIT courses DON’T count
for the degree. NO-CREDIT courses
include ARTH 105, ECON 305,
POL 300, PSYC 381, SOC 383,
STAT 325, and many others.
Check the list!  [5/11]

* Note:  AAAS, STS, and WGST disciplines
have different courses for Humanities and
for the Behavioral or Social sciences.