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#### <u>DEARBORN DISCOVERY CORE (DDC)</u> <u>Requirements</u> 27

WRITTEN AND ORAL COMM. (6 credits)
Composition Placement Exam required
COMP 105 (3) and
COMP 270 (3)
Both required if not taken to fulfill DDC Written
and Oral Communication

**HUMANITIES AND THE ARTS** (6 credits) PHIL/CRJ 240 (3) *Ethics* is REQUIRED *If not taken in fulfillment of DDC Humanities and Arts* 

Other (3 credits) must be chosen from DDC approved list in Degree Works or HTTPS://APP.SMARTSHEET.COM/B/PUBLISH?EQB CT=DAFF687F800B4FE89910A9CEA66B1627

#### SOCIAL AND BEH. ANALYSIS (9 credits)

Take one of the following two courses:
ECON 201 (3) Macroeconomics
ECON 202 (3) Microeconomics
Take OB 354 (3) Organizational Behavior
Take CRJ 200 (3) Intro to Criminal Justice
All three courses required if not taken in
fulfillment of DDC Soc. and Beh. Analysis

## INTERSECTIONS (6 credits)

Courses must be chosen from DDC approved list in Degree Works or HTTPS://APP.SMARTSHEET.COM/B/PUBLISH?EQB CT=DAFF687F800B4FE89910A9CEA66B1627

The following CIA ELECTIVES satisfy the Intersections requirement: CIS 479 (3), ENGR 400 (3), ENT 400 (3), IMSE 421 (3)

#### **Important DDC Notes:**

- DDC requirements apply to Freshmen admitted fall 2015 and later, and to Transfers admitted fall 2017 and later.
- Many DDC courses fulfill multiple categories. However, a single DDC course may be used for a maximum of three DDC categories
- CIA students MUST graduate with a minimum 123 credits

# \*\* Beware NO-CREDIT courses. \*\* NO-CREDIT listed at end of CECS Handbook: https://umich.app.box.com/s/6a5c4j9hwlctnppzy 7o2xjmvlrtumvoj

#### **MATHEMATICS and COGNATES 28**

### MATHEMATICS and STATISTICS (17)

(Fulfills DDC Quant. Thinking)
MATH 115 (4) Calculus I
MATH 116 (4) Calculus II
CIS 275 (4) Discrete Structures I
IMSE 317 (3) Probability/Statistics
One of the following two courses:
MATH 217 (2) Matrix Algebra, or
MATH 227 (3) Linear Algebra

## LABORATORY SCIENCE SEQUENCE (8)

(Fulfills DDC Natural Sciences)

Two courses, 8 credits, in a sequence from: BIOL 130 (4) and BIOL 140 (4) or CHEM 134 (4) and CHEM 136 (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 (3)**

ACC 298 (3) Financial Accounting

#### **CIA COURSES and ELECTIVES 68**

#### CIA CORE (35)

CIS 150 (4) Computer Science I
CIS 200 (4) Computer Science II
CIS 310 (4) Computer Organization and
Assembly Language
CIS 350 (4) Data Structures
CIS 375 (4) Software Engineering I
(Fulfills DDC Upper-Level Writing)

CIS 421 (4) Database Management Systems CIS 427 (4) Computer Networks and

Distributed Systems
CIS 435 (3) Web Technology
CIS 450 (4) Operating Systems

# Choose either the DF Concentration or the CP Concentration

#### CIA-DF Concentration REQUIRED (29)

CIS 387 (4) Digital Forensics I
CIS 467 (4) Digital Forensics II
Take one course from the following:
CIS 447 (3) Intro. Comp. & Network Security
ECE 426 (3) Multimedia Forensics
ECE 427 (3) Digital Content Protection
CRJ 468 (3) Criminology
CRJ 475 (3) Digital Evidence
CRJ 487 (3) Forensic Science Evidence
Take one of the following courses:

CRJ 409 (3) Intel and Homeland Security, or CRJ 474 (3) Cybercrimes

Electives (6)\* From Approved list below

#### CIA-CP Concentration REQUIRED (29)

CIS 280 (3) Practical Computer Security CIS 447 (3) Computer and Network Security CIS 490B (3) Wireless & Mobile Computing Security

CIS 4851 (3) Data Security and Privacy CRJ 409 (3) Intelligence and Homeland Security ECE 427 (3) Digital Content Protection MATH 396 (3) Introduction to Cryptography Electives (8)\* From Approved list below

#### **CAPSTONE (4)**

CIS 4951 (2) Design Seminar I
CIS 4952 (2) Design Seminar II
(Senior Design Courses fulfill DDC
Critical/Creative Thinking And Capstone
Experience)

#### \*CIA ELECTIVES

# Select electives not used to fulfil the requirements of your concentration

CIS 280 (3) Practical Computer Security
CIS 285 (3) Software Engineering Tools
CIS 299 (1) Coop/Internship
CIS 376 (4) Software Engineering II
CIS 381 (4) Industrial Robotics
CIS 387 (4) Digital Forensics I
CIS 399 (1) Coop/Internship
CIS 425 (4) Information Systems

CIS 436 (3) Mobile Application Design and Implementation

CIS 437 (3) Advanced Networking

CIS 447 (3) Computer and Network Security

CIS 467 (4) Digital Forensics II

CIS 476 (3) Software Architecture and Design Patterns

CIS 479 (3) Artificial Intelligence

CIS 487 (3) Computer Game Design & Implementation I

CIS 499 (1) Coop/Internship

CRJ 474 (3) Cybercrimes

CRJ 475 (3) Digital Evidence

CRJ 487 (3) Forensic Science Evidence

CRJ 490J (3) Intel and Homeland Security

ECE 372 (4) Microprocessors

ECE 426 (3) Multimedia Forensics

ECE 427 (3) Digital Content Protection

ECE 428 (3) Cloud Computing

ECE 435 (4) Intro to Mobile/Smart Device and Tech

ECE 473 (4) Embedded Systems

ENGR 399 (1) Prof Pract Engr & CS

ENGR 400 (3) Applied Business Techniques

ENT 400 (3) Introduction to Entrepreneurship

IMSE 421 (3) Engineering Economy and Decision Analysis

ITM 383 (3) Information Technology Security