

CLARION UNIVERSITY OF PENNSYLVANIA
COLLEGE OF BUSINESS ADMINISTRATION AND INFORMATION SCIENCES
B.S. INFORMATION SYSTEMS REQUIREMENT SHEET

GENERAL EDUCATION REQUIREMENTS - 48 CREDITS

Please refer to the approved list of Gen. Ed. courses that appears in the newspaper schedule.

I. LIBERAL EDUCATION SKILLS - 15 CREDITS CR. GR.

- A. English Composition (3 credits)
 Engl 111: Writing II _____ 3 _____
- B. Mathematics Requirement (3 credits)¹
 Math 131¹: _____ 3 _____
- C. Credits to total 15 in Category I, selected from at least two of the following: COM 140 or 340, Computer Information Science, CDS 465, Elementary Foreign Language, English Composition, HON 128, INQ 100, Logic, Mathematics, & Communication
 _____: _____ _____
 _____: _____ _____

II. LIBERAL KNOWLEDGE - 27 CREDITS

- A. **Physical and Biological Sciences** (9 credits) selected from at least two of the following: Biology, Chemistry, Earth Sci., ENVR275, GS411, HON230, Mathematics, Phys. Sci. & Physics.
 Math 221³: _____ 3 _____
 Math 232¹: _____ 3 _____
 _____: _____ _____
- B. **Social & Behavioral Science** (9 credits) selected from at least two of the following: Anthropology, CSD 125, CSD 257, Economics, Geography, GS 140, History, HON 240, NURS 320, Pol. Sci. Psychology, Social Work, Sociology, & Women & Gender Studies
 ECON 211¹: Principles of Macroeconomics _____ 3 _____
 ECON 212¹: Principles of Microeconomics _____ 3 _____
 _____: _____ _____
- C. **Arts & Humanities** (9 credits) selected from at least two of the following: Art, English, HON 130, Humanities, Intermediate Foreign Language and Cultures, INQ 100, Music, Philosophy, Communication, and Theater.
 _____: _____ _____
 _____: _____ _____
 _____: _____ _____

III. HEALTH AND PERSONAL PERFORMANCE - 3 CREDITS

- A. Health and Wellness (2 credits)
 _____: _____ 2 _____
- B. Personal Performance (1 course and 1 credit)
 _____: _____ _____

IV. GEN. ED. ELECTIVES - CREDITS TO TOTAL 48 FROM GEN. ED. excluding credits in I.S. major. Up to 1 credit from III.B. allowed.

_____: _____ _____
 _____: _____ _____
 _____: _____ _____

FLAGS - Record below courses used to meet Gen. Ed. requirements:

- _____ First Year Values (V)
 _____ Quantitative Reasoning (Q)
 _____ Second Values (S)
 _____ Writing Intensive (W)
 _____ Writing Intensive (W)

V. REQUIREMENTS IN MAJOR: 57-60 CREDITS
(See NOTE 1 and 3)

- A. Required courses in Information Systems (51-54 crs.) CR. GR.
 MATH 221³: Elementary Applied Statistics _____ 3 _____

OR

- ECON 221: Econ-Bus Statistics I _____ 3 _____
 ACTG 251: Financial Accounting _____ 3 _____
 ACTG 252: Managerial Accounting _____ 3 _____
 MGMT 320: Management Theory & Practice _____ 3 _____
 MKTG 360: Principles of Marketing _____ 3 _____
 FIN 370: Financial Management _____ 3 _____
 CIS 110: Intro. to Computer Concepts. _____ 3 _____
 CIS 202: Intro. to Program. & Algorithms I _____ 3 _____
 CIS 206: Intro. To Java Programming _____ 3 _____
 CIS 210: Intro to Cybersecurity _____ 3 _____
 CIS 217: Spreadsheets and Office Apps _____ 3 _____
 CIS 301: Computer Systems Analysis _____ 3 _____
 CIS 303: Local Area Networks _____ 3 _____
 CIS 317: Microcomputer Maintenance _____ 3 _____
 CIS 330: Information Systems Programming _____ 3 _____
 CIS 402: Database Design and Implementation _____ 3 _____
 CIS 403: Data Communications _____ 3 _____
 CIS 411: Systems Development Project _____ 3 _____

B. Electives in Major (6 credits)

- CIS 208: Introduction to Robotics Programming _____ 3 _____
 CIS 220: Cybersecurity Concepts _____ 3 _____
 CIS 253: Comp. Organiz. & Assembly Lang. _____ 3 _____
 CIS 270: Client Side Web Programming _____ 3 _____
 CIS 305: Artificial Intelligence in Dec. Making _____ 3 _____
 CIS 306: Object-Oriented Programming _____ 3 _____
 CIS 310: Natural Language Processing _____ 3 _____
 CIS 312: Special Topics in Computing _____ 3 _____
 CIS 318: Autonomous Robotics Programming Alg. _____ 3 _____
 CIS 323: Cyber Forensics and Incident Response _____ 3 _____
 CIS 333: Information System Auditing & Security _____ 3 _____
 CIS 370: Server Side Web Programming _____ 3 _____
 CIS 406: Mobile Application Development _____ 3 _____
 CIS 422²: Internship _____ _____
 CIS 433 Security Management _____ 3 _____
 CIS 435: Machine Learning _____ 3 _____
 CIS/MGMT 470: Project Management _____ 3 _____
 DA 412: Special Topics in Data Analytics _____ 3 _____

VI. FREE ELECTIVES

CR. GR.
 Credits to total 120 credits for graduation.
 _____: _____ _____
 _____: _____ _____
 _____: _____ _____
 _____: _____ _____
 _____: _____ _____
 _____: _____ _____

FLAGS - Record below:

NOTES

1. All students in the Information Systems program are required to take MATH 131, MATH 232, ECON 211, and ECON 212 or their equivalents. These courses may be placed in General Education. If used for General Education, check off under Major Requirements, but do not count the credits again under Major Requirements.

2. 1-3 credits of CIS 422 may be applied to Electives in Major.
3. MATH 221 may be placed in General Education. If used for General Education, check off under Major Requirements, but do not count the credits again under Major Requirements.

University Policies Relating to Academic Requirements

- A student is obligated by those requirements which are in effect at the time of his/her matriculation, but if he/she changes majors he/she is obligated by the requirements in effect at the time of the change. If a student has been out of school for more than two years and is readmitted, he/she is treated as a new student for requirement purposes.
- A minimum of 120 credits must be presented for graduation, of which at least 30 of the last 60 credits must have been earned in residence.
- No more than 2 credits of Personal Performance (III.B) may be counted for graduation.
- Upon presentation of form DD 214, the university grants a maximum of 4 credits in Health and Physical Education for active military service of 6 months or more. Credit is normally given for NFSS 111 (2 credits) and 2 activity hours of 1 credit each.
- Maximum loads: Students with a GPA of 3.0, 21 hours; students in good standing*, 18 hours; students on probation, 15 hours.

* To be in good standing, undergraduate students must maintain a minimum cumulative grade point average of 2.0.

- After a student has earned a minimum of 30 semester hours of credit and if he/she is in good academic standing, he/she may schedule a maximum of six courses of 18 credit hours for Credit-No Record. One such course may be taken each semester. Courses in the student's major may not be taken on a Credit/No Record basis.
- Course credits not to exceed 18 semester hours may be earned by departmental examination at Clarion.
- All candidates for an undergraduate degree must be in good academic standing (i.e., have a cumulative GPA of 2.0).
- Students may earn two degrees (B.A., B.S., BSED, BSBA), simultaneously or in sequence, by completion of 30 approved credits hours beyond those taken for one degree.
- Students may take a double major by satisfying the major requirements of two programs within a single degree. Ordinarily a double major (two majors within one degree) can be effected in 120 hours, but it is not possible to take two majors in different degree programs (e.g., B.S. in Biology and BSED in Biology) unless the 30 hour requirement for a second degree, referred to in the preceding statement, is satisfied.
- Students may obtain teacher certification in conjunction with many degrees by completing the required course work in professional education. For more information, contact the Dean of the College of Arts, Education and Sciences, or the Director of Education. With careful course selection, ordinarily no more than 120 credits will be required.

Academic Policy information can be found on the Registrar's web page at the following link:
<http://www.clarion.edu/academics/registrars-office/academic-policies/index.html>