

Chemistry Concentration
Effective Fall 2013

IUPUI – FORENSIC AND INVESTIGATIVE SCIENCES PROGRAM

These courses are required for all students in the FIS program www.forensic.iupui.edu

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| Required: SCI-I 120 Windows on Science. With permission another Learning Community may be substituted. | 1 cr. _____ | FIS 40100 Forensic Chemistry I | 3cr. <u>fa</u> |
| | | FIS 40101 Forensic Chemistry Lab I | 1cr. <u>fa</u> |
| | | FIS 40400 Forensic Chemistry II | 3cr. <u>sp</u> |
| | | FIS 40401 Forensic Chemistry Lab II | 1cr. <u>sp</u> |
| | | FIS 41500 Forensic Science and the Law | 3cr. _____ |
| | | FIS 49000 Capstone in Forensic Science | 2cr. <u>fa</u> |
| CORE COMMUNICATION - 9 cr. (Grade of a C or better in each composition course) English Composition (Core 30) ENG-W 131 (ENG-W 140) English Composition I | 3 cr. _____ | Required Biology Courses - 10 credits BIOL-K 101 Concepts of Biology I | 5 cr. _____ |
| Speech Communication – (Core 30) COMM-R 110 Speech Communication | 3 cr. _____ | BIOL-K 103 Concepts of Biology II | 5 cr. _____ |
| Advanced Composition- (SOS) ENG-W 132 (ENG-W 150), ENG-W 231 or TCM 32000 | 3 cr. _____ | Required Chemistry Courses - 22 credits CHEM-C 310 Analytical Chemistry | 3 cr. <u>sp/ss2</u> |
| | | CHEM-C 311 Analytical Chemistry Lab | 1 cr. <u>sp/ss2</u> |
| | | CHEM-C 341 Organic Chemistry I | 3 cr. _____ |
| | | CHEM-C 343 Organic Chemistry Lab I | 2 cr. _____ |
| | | CHEM-C 342 Organic Chemistry II | 3 cr. _____ |
| | | CHEM-C 344 Organic Chemistry Lab II | 2 cr. _____ |
| | | CHEM-C 360 Elementary Physical Chemistry | 3 cr. <u>sp</u> |
| | | CHEM-C 410 Principles of Chem. Instrumentation | 3 cr. <u>fa</u> |
| | | CHEM-C 411 Principles of Chem. Instrument. Lab | 2 cr. <u>fa</u> |
| FOREIGN LANGUAGE A foreign language is not required for BS degrees. | | Required Statistics Course - 3 credits STAT 30100 Elementary Statistical Methods | 3 cr. _____ |
| CULTURAL UNDERSTANDING—3 cr. Cultural Understanding (Core 30) | 3 cr. _____ | Advanced Science Courses – Choose 12 credits (minimum) Check prerequisites at www.bulletin.iupui.edu . | |
| ARTS/HUMANITIES (AH) AND SOCIAL SCIENCES (S)—9 cr. AH (Core 30): _____ | 3 cr. _____ | ANTH-B 426 Human Osteology | 3cr. <u>varies</u> |
| S (Core 30): _____ | 3 cr. _____ | ANTH-B 426 Forensic Anthropology | 3cr. <u>varies</u> |
| AH or S (Core 30): _____ | 3 cr. _____ | BIOL-K 322 Genetics & Molecular Biology | 3cr. _____ |
| | | BIOL-K 323 Genetics & Molecular Biology Lab | 2cr. <u>fa</u> |
| | | BIOL-K 324 Cell Biology | 3cr. _____ |
| | | BIOL-K 325 Cell Biology Laboratory | 2cr. <u>sp</u> |
| | | BIOL-K 338 Immunology | 3cr. _____ |
| | | BIOL-K 339 Immunology Lab | 2cr. _____ |
| | | BIOL-K 341 Principles of Ecology and Evolution | 3cr. _____ |
| | | BIOL-K 356 Microbiology | 3cr. _____ |
| | | BIOL-K 357 Microbiology Laboratory | 2cr. <u>sp</u> |
| | | BIOL-K 483 Biological Chemistry | 3cr. _____ |
| | | BIOL-K 484 Cellular Biochemistry | 3cr. <u>sp</u> |
| | | BIOL-N 217 Human Physiology | 5cr. _____ |
| | | BIOL-N 261 Human Anatomy | 5cr. _____ |
| | | CHEM-C 430 Inorganic Chemistry | 3cr. <u>sp</u> |
| | | CHEM-C 435 Inorganic Chemistry Lab | 1cr. <u>sp</u> |
| | | CHEM-C 484 Biomolecules and Catabolism | 3cr. <u>fa</u> |
| | | CHEM-C 485 Biosynthesis and Physiology | 3cr. _____ |
| | | CHEM-C 486 Biological Chemistry Lab | 2cr. _____ |
| | | FIS 40200 Forensic Biology I | 3cr. <u>fa</u> |
| | | FIS 40201 Forensic Biology I Lab | 2cr. <u>fa</u> |
| | | FIS 40300 Forensic Biology II | 3cr. <u>sp</u> |
| | | FIS 40301 Forensic Biology II Lab | 2cr. <u>sp</u> |
| | | GEOL-G 306 Earth Materials | 3cr. _____ |
| LIFE AND PHYSICAL SCIENCES—10 cr. PHYS-P 201 General Physics I (Core 30/SOS) | 5 cr. _____ | ELECTIVES FIS requires no electives. Total: 123 cr. | |
| PHYS-P 202 General Physics II (Core 30/SOS) | 5 cr. _____ | | |
| PHYSICAL AND BIOLOGICAL SCIENCES--10 cr. CHEM-C 105 Principles of Chemistry I (SOS) | 3 cr. _____ | | |
| CHEM-C 125 Experimental Chemistry I (SOS) | 2 cr. _____ | | |
| CHEM-C 106 Principles of Chemistry II (SOS) | 3 cr. _____ | | |
| CHEM-C 126 Experimental Chemistry II (SOS) | 2 cr. _____ | | |
| ANALYTICAL REASONING—6 cr. MATH 23100 Calculus for Life Science I (Core 30/SOS) | 3 cr. _____ | | |
| MATH 23200 Calculus for Life Sciences II (Core 30/SOS) | 3 cr. _____ | | |
| COMPUTER SCIENCE PROGRAMMING—3 cr. Select from the following: CSCI-N 201, N 207, N 211, N 301, or N 199 ONLY topic: Computer Programming Principles (SOS) | 3 cr. _____ | | |
| MAJOR COURSES –72 credits Students must have a grade of C- or higher for courses listed in major courses area <u>except</u> for FIS courses (see below) | | | |
| Required Forensic Science Courses - 25 credits (Grade of C or better in each FIS course; No grade below C accepted) | | | |
| FIS 20500 Concepts of Forensic Science I | 3cr. <u>fa</u> | | |
| FIS 20600 Concepts of Forensic Science II | 3cr. <u>fa</u> | | |
| FIS 30500 Professional Issues in Forensic Science | 3cr. <u>sp</u> | | |
| FIS 30600 Forensic Microscopy | 3cr. _____ | | |

GENERAL INFORMATION

1. Independent Study (correspondence) courses may be used for general electives up to a maximum of 12 credit hours. All independent study courses must be approved by the associate dean for academic programs and student development in the School of Science.
2. Courses taken on the Pass/Fail option are applied only as general electives and do not count toward any degree area requirements of the school or department.
3. A minimum of 120 credit hours must be completed for graduation. This total must include at least 32 credit hours in courses at the 300-level or above taken at the IUPUI campus. Residence (not living but taking courses on the IUPUI campus) of at least two semesters at the IUPUI campus is also required for graduation.
4. Some of the courses listed may have prerequisites that are not part of the required course list. Check with the FIS advisor to make sure you have the necessary prerequisites.
5. The following are acceptable substitutes. Always check with your advisor before officially choosing a substitute.
MATH 16500 & 16600 – Can substitute for MATH 23100 & 23200
MATH 22100 & 22200 – Can substitute for MATH 23100 & 23200
PHYS 15200 & 25100 – Can substitute for PHYS-P 201 & P 202
6. Students must maintain a minimum **2.5 GPA** for the FIS degree
7. To contact the FIS Academic Advisor, call 317-274-6882 or email forsci@iupui.edu. To schedule an appointment with the FIS Academic Advisor go to <http://science.iupui.edu/advising>.

Cultural Understanding

AFRO-A 140 Intro to African Amer & African Diaspora Studies
AFRO-A 150 Surv Cultr of Black Americans
AFRO-A 152 Introduction to African Studies
ANTH-A 104 Cultural Anthropology
ASL-A 131 Intensive Beg Amer Sign Lang I
CLAS-L 131 Beginning Latin I
EALC-C 117 Basic Chinese I
EALC-J 131 Beginning Japanese I
EDUC-E 201 Multicult Educ/Global Awarens
FREN-F 117 Beginning French I
FREN-F 131 Intensive Beginning French I
GER-G 117 Beginning German I
GER-G 131 Intensive Beginning German I
HER-H 221 Art Past And Present
INTL-I 100 Intro To International Studies
ITAL-M 117 Basic Italian
MUS-M 394 Survey Of African American Music
NELC-A 131 Beginning Arabic I
PSY-B 203 Ethics And Diversity In Psy
SPAN-S 117 Beginning Spanish I
SPAN-S 131 Intensive Beginning Spanish I
SWK-S 102 Undrst Diversity in a Pluralistic Society

Arts and Humanities (AH)

ART 21000 Hist of Architecture 1
COMM-T 130 Introduction to Theatre
ENG-L 105 Appreciation of Literature
ENG-L 115 Literature for Today
HER-E 101 Beginning Drawing I
HER-E 105 Beginning Painting I
HER-E 109 Color and Design For Non-Art Majors
HER-E 201 Photography I
HER-E 209 Drawing for Interior Design
HER-E 214 Visual Learning: From the Simpsons to the Guerrilla Girls
HER-H 100 Art Appreciation
HER-H 101 History of Art 1
HER-H 102 History of Art 2
HER-H 210 The Art of Art History
MUS-E 241 Intro to Music Fundamentals
MUS-M 174 Music for The Listener
MUS-Z 201 History of Rock And Roll Music
PHIL-P 110 Introduction to Philosophy
PHIL-P 120 Ethics
PHST-P 105 Giving & Volunteering in Amer

REL-R 133 Introduction to Religion
REL-R 212 Comparative Religions

Social Sciences (S)

BUS-F 260 Personal Finance
(Note: Bus-F 260=F-151, F-152, and F-153, Combined)
BUS-F 151 Personal Finances of the College Student
BUS-F 152 Basic Financial Planning and Investment
BUS-F 251 Managing Personal and Financial Risk
BUS-W 200 Intro To Business & Management
BUS-X 100 Bus Administration: Intro
COMM-C 180 Intro To Interpersonal Comm
COMM-M 150 Mass Media & Contemp Society
ECE 32700 Engineering Economics
ECON-E 101 Survey of Economic Iss & Prob
ECON-E 201 Intro to Microeconomics
ECON-E 202 Intro to Macroeconomics
EDUC-P 251 Educ Psy for Elem Tchrs
ENG-Z 104 Language in Our World
FOLK-F 101 Introduction to Folklore
GEOG-G 110 Intro to Human Geography
GEOG-G 130 World Geography
HIST-H 105 American History I
HIST-H 106 American History Ii
HIST-H 108 Perspectives: World To 1800
HIST-H 109 Perspectives: World 1800–Pres
HIST-H 113 History of Western Civiliz 1
HIST-H 114 History of Western Civiliz 2
INF-I 202 Social Informatics
POLS-Y 101 Introduction to Political Science
POLS-Y 103 Intro to American Politics
POLS-Y 217 Intro to Comparative Politics
POLS-Y 219 Intro to Intl Relations
PSY-B 110 Introduction to Psychology
SOC-R 100 Introduction to Sociology
SOC-R 121 Social Problems
SPEA-J 101 American Criminal Justice Sys
SPEA-V 170 Intro to Public Affairs
SPEA-V 221 Nonprofit & Voluntary Sector
SPEA-V 222 Principles of Sustainability
SWK-S 221 Human Growth and Development in the Social Environment
SWK-S 251 Hist & Analysis of Social Welfare Policy
WOST-W 105 Intro