

**Chemistry Concentration**  
**Effective Fall 2015**

**IUPUI – FORENSIC AND INVESTIGATIVE SCIENCES PROGRAM**

These courses are required for all students in the FIS program <http://forensic.iupui.edu/>

|   |             |   |  |
|---|-------------|---|--|
| SCI-I 120 Windows on Science or other Learning Comm.                    | 1 cr. _____ | FIS 41500 Forensic Science and the Law  | 3cr. _____                               |
|   |             | FIS 49000 Capstone in Forensic Science  | 2cr. <u>fa</u>                           |
| <b>CORE COMMUNICATION - 9 cr.</b>                                       |             | <u>Required Biology Courses</u> - 10 credits  |  |
| (Grade of a C or better in each composition course)                     |             | BIOL-K 101 Concepts of Biology I  | 5 cr. _____                              |
| English Composition (Core 30)   |             | BIOL-K 103 Concepts of Biology II   | 5 cr. _____                              |
| ENG-W 131 (ENG-W 140) English Composition I                             | 3 cr. _____ | <u>Required Chemistry Courses</u> - 22 credits  |  |
| Speech Communication – (Core 30)  |             | CHEM-C 310 Analytical Chemistry   | 3 cr. _____                              |
| COMM-R 110 Speech Communication   | 3 cr. _____ | CHEM-C 311 Analytical Chemistry Lab   | 1 cr. _____                              |
| Advanced Composition- (SOS)   |             | CHEM-C 341 Organic Chemistry I  | 3 cr. _____                              |
| ENG-W 270, ENG-W 231, ENG-W 230 or TCM 32000                            | 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 325 Introductory Instrumental Analysis   | 5 cr. <u>sp</u>                          |
| <b>FOREIGN LANGUAGE</b>   |             | <u>Required Statistics Course</u> - 3 credits   |  |
| A foreign language is not required for BS degrees.                      |             | STAT 30100 Elementary Statistical Methods   | 3 cr. _____                              |
| <b>CULTURAL UNDERSTANDING—3 cr.</b>                                     |             | <u>Advanced Science Courses</u> – Choose 12 credits (minimum)                                 |  |
| Cultural Understanding (Core 30): _____                                 | 3 cr. _____ | Check prerequisites at <a href="http://www.bulletin.iupui.edu">www.bulletin.iupui.edu</a>     |  |
| <i>(Foreign Language if pursuing BA in Chemistry or Biology, 4 cr.)</i> |             | ANTH-B 426 Human Osteology  | 3cr. <u>varies</u>                       |
| <b>ARTS/HUMANITIES (AH) AND SOCIAL SCIENCES (S)—9 cr.</b>               |             | ANTH-B 460 Forensic Anthropology or Bio-Archaeology   | (ONLY these two topics) 3cr. <u>vary</u> |
| AH (Core 30): _____   | 3 cr. _____ | BIOL-K 322 Genetics & Molecular Biology   | 3cr. _____                               |
| S (Core 30): _____  | 3 cr. _____ | BIOL-K 323 Genetics & Molecular Biology Lab   | 2cr. <u>fa</u>                           |
| AH or S (Core 30): _____  | 3 cr. _____ | BIOL-K 324 Cell Biology   | 3cr. _____                               |
|   |             | BIOL-K 325 Cell Biology Laboratory  | 2cr. <u>sp</u>                           |
|   |             | BIOL-K 331 Embryology   | 3cr. _____                               |
|   |             | BIOL-K 333 Embryology Laboratory  | 1cr. <u>sp</u>                           |
|   |             | BIOL-K 338 Immunology   | 3cr. _____                               |
|   |             | BIOL-K 339 Immunology Lab   | 2cr. _____                               |
|   |             | BIOL-K 341 Principles of Ecology and Evolution  | 3cr. <u>fa/even sp</u>                   |
|   |             | BIOL-K 342 Principles of Ecology and Evolution Lab  | 2cr. <u>fa</u>                           |
|   |             | BIOL-K 356 Microbiology   | 3cr. _____                               |
|   |             | BIOL-K 357 Microbiology Laboratory  | 2cr. <u>sp</u>                           |
|   |             | BIOL-K 411 Global Change Biology  | 3cr. <u>odd sp</u>                       |
|   |             | BIOL-K 384 Biochemistry   | 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 384 Biochemistry   | 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>                           |
|   |             | FIS 43000 Population Genetics   | 3cr. <u>sp</u>                           |
|   |             | FIS 49600 Special Topics in Forensic Science (ALL topics)                                     | 1-3cr. _____                             |
|   |             | GEOL-G 306 Earth Materials  | 4cr. _____                               |
|   |             | SPEA-J 260 Topics in Criminal Justice   | 1cr. _____                               |
|   |             | (ONLY topics: Investigating Post Blast Crime Scene, Indiana Homicide and Death Investigation) |  |
|   |             | <b>ELECTIVES</b>  |  |
|   |             | FIS requires no electives. Total: 123 cr.   |  |

## GENERAL INFORMATION

1. Courses taken Pass/Fail do not count toward any degree area requirements of the school or department.
2. 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.
3. 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.
4. 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
5. To contact the FIS Academic Advisor, call 317-274-6882 or email [forsci@iupui.edu](mailto:forsci@iupui.edu). To schedule an appointment, go to <http://science.iupui.edu/advising>.

### Cultural Understanding

**AFRO-A 140** INTRODUCTION TO AFRICAN AMERICAN AND AFRICAN DIASPORA STUDIES

**AFRO-A 150** CULTR OF BLACK AMERICANS

**AFRO-A 152** INTRO TO AFRICAN STUDIES

**AMST-A 101** INTRO TO AMERICAN STUDIES

**ANTH-A 104** CULTURAL ANTHROPOLOGY

**EDUC-E 201** MULTICULT EDUC/GLOBAL AWARENS

**ENG-L 207** WOMEN AND LITERATURE

**ENG-L 245** INTRO TO CARIBBEAN LIT

**HER-H 221** ART PAST AND PRESENT

**INTL-I 100** INTRO TO INTERNATL STUDIES

**LATS-L 101** INTRO TO LATINO STUDIES

**LATS-L 228** AN INTERDISCIPLINARY LOOK AT U.S. LATINO/A IDENTITIES

**MUS-M 394** SURVEY OF AFRICAN AMERICAN MUSIC

**MUS-Z 105** TRADITIONS IN WORLD MUSIC

**NAIS-N 101** INTRODUCTION TO NATIVE AMERICAN INDIGENOUS STUDIES

**PSY-B 203** ETHICS AND DIVERSITY IN PSY

**REL-R 101** RELIGION AND CULTURE

**SWK-S 102** UNDERSTANDING DIVERSITY IN A PLURALISTIC SOCIETY

**TCM 18000** EXPLORING INTERCULTURAL TECHNICAL COMMUNICATION

**TCEM-T 208** GLOBAL TOURISM GEOGRAPHY

**TCEM-T 234** CULTURAL HERITAGE TOURISM

### FOREIGN LANGUAGES

**AMERICAN SIGN LANGUAGE:** ASL-A 131, A 132, A 211, A 212

**ARABIC:** NELC-A 131, A 132, A 200, A 250

**CHINESE:** EALC-C 117, C 131, C 132, C 201, C 202

**FRENCH:** FREN-F 117, F 131, F 132, F 203, F 204

**GERMAN:** GER-G 117, G 131, G 132, G 203, G 204

**ITALIAN:** ITAL-M 131, M 132, M 200, M 250

**JAPANESE:** EALC-J 131, J 132, J 201, J 202

**LATIN:** CLAS-L 131, L 132, L 200, L 250

**SPANISH:** SPAN-S 117, S 131, S 132, S 203, S 204

### Arts and Humanities (AH)

**ART 21000** HIST OF ARCHITECTURE I

**CLAS-C 101** ANCIENT GREEK CULTURE

**CLAS-C 102** CLASSICAL MYTHOLOGY

**CLAS-C 205** CLASSICAL MYTHOLOGY

**COMM-T 130** INTRODUCTION TO THEATRE

**ENG-L 105** APPRECIATION OF LITERATURE

**ENG-L 202** LITERARY INTERPRETATION

**ENG-L 203** INTRODUCTION TO DRAMA

**ENG-L 205** INTRODUCTION TO POETRY

**ENG-L 207** WOMEN AND LITERATURE

**ENG-L 115** LITERATURE FOR TODAY

**ENG-L 213** LITERARY MASTERPIECES I

**ENG-L 214** LITERARY MASTERPIECES II

**ENG-W 206** INTRODUCTION TO CREATIVE WRITING

**ENG-W 207** INTRODUCTION TO FICTION WRITING

**ENG-W 208** INTRODUCTION TO POETRY WRITING

**ENG-W 210** LITERACY AND PUBLIC LIFE

**FILM-C 292** INTRODUCTION TO FILM

**HER-E 101** BEGINNING DRAWING I

**HER-E 105** BEGINNING PAINTING I

**HER-E 109** COLOR & DESIGN NON-ART MAJOR

**HER-E 111** METALSMITHING AND JEWELRY DESIGN

**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 I

**HER-H 102** HISTORY OF ART 2

**HER-H 200** UNDERSTANDING CONTEMPORARY ART

**HER-H 210** THE ART OF ART HISTORY

**HER-V 214** HISTORY OF VISUAL COMMUNICATION

**MHHS-M 201** INTRO TO MED HUM & HEALTH STUDIES

**MSTD-A 101** UNDERSTANDING MUSEUMS

**MUS-E 241** INTRO TO MUSIC FUND

**MUS-L 100** GUITAR ELECT/SECONDARY

**MUS-L 101** BEGINNING GUITAR CLASS

**MUS-M 174** MUSIC FOR THE LISTENER

**MUS-Z 201** HIST OF ROCK & ROLL MUSIC

**NEWM-N 100** FOUNDATIONS OF NEW MEDIA

**NEWM-N 201** DESIGN ISSUES IN DIGITAL MEDIA

**PHIL-P 110** INTRO TO PHILOSOPHY

**PHIL-P 120** ETHICS

**PHST-P 105** GIVING & VOL IN AMER

**REL-R 133** INTRODUCTION TO RELIGION

**REL-R 173** AMERICAN RELIGION

**REL-R 180** INTRODUCTION TO CHRISTIANITY

**REL-R 212** COMPARATIVE RELIGIONS

**REL-R 243** INTRODUCTION TO THE NEW TESTAMENT

**REL-R 257** INTRODUCTION TO ISLAM

### Social Sciences (S)

**BUS-F 260** PERSONAL FINANCE

(Note: BUS-F 260 is equivalent to F-151, F-152, and F-153, combined)

**BUS-F 151** (1 cr.), **F 152** (1 cr.), **F 251** (1 cr.)

**BUS-W 200** BUS/MGMT, X 100

**BUS-X 100** BUS ADMINISTRATION: INTRO

**COMM-C 180** INTRO TO INTERPER COMM

**COMM-M 150** MASS MED & CONTEMP SOC

**ECE 32700** ENGINEERING ECONOMICS

**ECON-E 101** SURVEY OF ECONOMIC ISS & PRB

**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

**ENG-Z 205** INTRO TO THE ENGLISH LANGUAGE

**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** PERSPECT: WORLD 1800-PRES

**HIST-H 113** HISTORY OF WESTERN CIVILIZ 1

**HIST-H 114** HISTORY OF WESTERN CIVILIZ 2

**HPER-F 255** HUMAN SEXUALITY

**HPER-F 258** MARRIAGE & FAMILY INTERACTION

**HPER-H 195** PRIN OF LIFESTYLE WELLNESS

**INFO-I 202** SOCIAL INFORMATICS

**INFO-I 270** INTRO TO HUMAN-COMP INTERACTION PRIN & PRACTICES

**INFO-I 275** INTRO TO HUMAN-COMPUTER INTERACTION THEORY

**JOURN-J 110** FOUNDATIONS OF JOURNALISM & MASS COMM

**ME 32700** ENGINEERING ECONOMICS

**OLS 25200** HUMAN BEHAVIOR IN ORGANIZATIONS

**OLS 26300** ETHICAL DECISIONS IN LEADERSHIP

**OLS 27400** APPLIED LEADERSHIP

**POLS-S 101** INTRODUCTION TO POL SCI

**POLS-Y 103** INTRO TO AMERICAN POLITICS

**POLS-Y 217** INTRO TO COMP POL

**POLS-Y 219** INTRO TO INTNL 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-J 150** PUBLIC SAFETY IN AMERICA

**SPEA-V 170** INTRO TO PUBLIC AFFAIRS

**SPEA-V 221** NONPROFIT & VOLUNTARY

**SPEA-V 222** PRINCIPLES OF SUSTAINABILITY

**SWK-S 221** HUMAN GROWTH AND DEV IN THE SOCIAL ENVIRONMENT

**SWK-S 251** HIST AND ANALYSIS OF SOC WELFARE POLICY

**WOST-W 105** INTRO TO WOMEN'S STUDIES