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| **First Year Fall** | **First Year Spring** |
| CEM 141 General Chemistry (4)\*\* (F/S/Su) | BS 161 Cell and Molecular Biology (3)\*\* (F/S/Su) |
| CEM 161 Chemistry Lab I (1)\*\* (F/S/Su) | BS 171 Cell and Molecular Biology Lab (2)\*\* (F/S/Su) |
| MTH 103 (or based upon placement) (3-5)\*\* (F/S/Su) | MTH 124/132 Calculus (3) (F/S/Su) |
| BLD 121 Survive & Thrive Freshman Seminar (1) (F/S) | CEM 162 Chemistry lab II (1)\*\* (F/S/Su) |
| ISS 2XX Int Stud Social Sci (4) (F/S/Su) | WRA 101 Writing as Inquiry (4)\*\* (F/S/Su) |
| Elective such as BLD 150 (optional) | Elective |
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| **Second Year Fall** | **Second Year Spring** |
| BLD 213L Clinical Laboratory Methods (2) (F/S) | MGI 201 Fundamentals of Microbiology (3) (S/Su) |
| CEM 251 Organic Chemistry I (3)\*\* (F/S/Su) | CEM 252 Organic Chemistry II (3)\*\* (F/S/Su) |
| PHY 231 Introductory Physics I (3)\*\* (F/S/Su) | PHY 232 Introductory Physics II (3)\*\* (F/S/Su) |
| PSL 310 Physiol for Pre-Health Prof (4)\*\* (F/S/Su) | BLD 204 Mechanisms of Disease (3) (S/Su\*) |
| STT 231 (or STT 200) Statistics (3)\*\* (F/S/Su) | BLD 313 Quality Medical Laboratory Methods (3) (S) |
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| **Third Year Fall** | **Third Year Spring** |
| BLD 314L Adv Clinical Laboratory Methods (1) (F/S) | MGI 365 Medical Microbiology (3)\*\* (S) |
| BLD 324 Hematology and Hemostasis (3) (F) | MGI 365L Medical Microbiology Lab (1) (S) |
| BLD 434 Clinical Immunology (3) (F/Su) | BLD 435 Immunohematology (2) (S) |
| BMB 401 Basic Biochemistry (4)\*\* (F/S/Su) | BLD 302 Clinical Chemistry (2) (S) |
| IAH 201-210 Int Stud in Arts and Hum (4) (F/S/Su) | BLD 430 Molecular Diagnostics (2) (S) |
|  | ISS 3XX Int Stud Social Sci (4) (F/S/Su) |
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| ***APPLY TO MLS PROGRAM IN DECEMBER OR 🡪*** | ***PICK A BLS CONCENTRATION FOR FOURTH YEAR*** |

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| **BLS Concentration options** | **Career Pathways** |
| **Any of the following concentration option** | pre-MD/DO/PA/PharmD/Vet/ path assistant |
| **Clinical Chemistry:** Advanced focus in clinical chemistry  methods and correlations | Toxicology/forensics labs, pharma industry, graduate  school |
| **Hematology and Hemostasis:** Advanced focus in diagnostic testing related to hematologic and hemostatic diseases. | Research/industry lab, graduate school, oncology |
| **Medical Laboratory Science:** Advanced preparation for accredited medical laboratory science internship covering clinical chemistry, medical microbiology, hematology/hemostasis, and immunohematology | Diagnostic medical laboratories including hospitals, reference labs, doctor's offices, graduate school, quality assurance, DCLS |
| **Medical Microbiology:** Advanced focus in medical microbiology laboratory diagnosis, epidemiology and prevention | Public health, epidemiology, infection control, graduate school |

NOTE: Courses with \*\* are recommended for pre-professional students preparing to take the MCAT. Additional courses not required in BLS major include:

CEM 142, CEM 255, BS 162, BS 172, PHY 251, PHY 252, ANTR 350, PSY 101, SOC 100

\*Many of the courses in the Arts and Humanities and Social, Behavioral, and Economic Sciences arenas, emphasize national diversity (designated “N” at the end of the course title), or international and multi-cultural diversity (designated “I” at the end of the course title). Some courses emphasize both national diversity, and international and multi-cultural diversity (designated “D” at the end of the course title). Students must include at least one “N” course and one “I” course in their Integrative Studies programs. A “D” course may meet either an “N” or an “I” requirement but not both

***SEE BACK OF SHEET FOR BLS CONCENTRATION PLANNING OPTIONS***

**BLS SENIOR YEAR PLANNING GUIDE**

**Clinical Chemistry (**□ **total 120 credits to graduate):**

1)□ BLD 402 Adv Clin Chem (F)

2) □ CEM 333 Instr. Meth and Apps (S)

3) □ BLD 456 Med Lab Prof (F)

4) □ IAH 211+ Int Arts Humanities (F/S)

5) □ Selective 1 [BE 230, CEM 255, CEM 262, CEM 311, CEM 383, PHM 350, PHM 321, PHM 430, PHM 450]

6) □ Selective 2 [BE 230, CEM 255, CEM 262, CEM 311, CEM 383, PHM 350, PHM 321, PHM 430, PHM 450]

(S) (F/S/Su) (F/S/Su) (S) (F) (F/S/Su) (F/S) (Su) (F/S/Su)

**Medical Microbiology (**□ **total 120 credits to graduate):**

1) □ MGI 465 Adv Med Micro (F)

2) □ MGI 465L Adv Med Micro Lab (F)

3) □ MGI 461 Mol Path (S)

4) □ BLD 456 Med Lab Prof (F)

5) □ IAH 211+ Int Arts Humanities (F/S)

6) □ Selective [BE 230, BLD 366, BLD 861, EPI 390, PH 801, MGI 413, MGI 421, MGI 431]

(S) (Su) (F) (S/Su) (F/S/Su) (S) (F) (F)

**Hematology and Hemostasis (**□ **total 120 credits to graduate):**

1) □ BLD 424 Adv Heme and Hemo (S)

2) □ BLD 424L Adv Heme, Hemo & Urine Lab (S)

3) □ pick two: □ BLD 439 Histo and Immunogen (S)

□ BLD 446 Immunobio of Neoplasia (S)

□ BLD 447 Immunomod & Immunother (S)

4) □ BLD 456 Med Lab Prof (F)

5) □ IAH 211+ Int Arts Humanities (F/S)

6) □ Selective [BLD 815, IBIO 341, IBIO 408, IBIO 425, IBIO 450, MGI 409, PHM 350]

(S) (F/S/Su) (F) (S) (S) (S (F/S/Su)

**Medical Laboratory Science (**□ **total 120 credits to graduate):**

1) □ BLD 402 Adv Clin Chem (F)

2) □ BLD 424 Adv Heme and Hemo (S)

3) □ BLD 424L Adv Heme, Hemo, and Urine Lab (S)

4) □ BLD 435L Immunoheme Lab (S)

5) □ MGI 465 Adv Med Micro (F)

6) □ MGI 465L Adv Med Micro Lab (F)

7) □ BLD 456 Med Lab Prof (F)

8) □ IAH 211+ Int Arts Humanities (F/S)