# INTERDISCIPLINARY SCIENCES DEGREE PROGRAM WORKSHEET

**Student Name:** **Advisor:**
**Target Graduation Date:** **Specialization: Pre-Professional Health Sciences**
**Pre-Dental**

Copies of this degree program worksheet are to be maintained by both the student and the advisor. It is to be submitted with the student's Letter of Intent no later than one year before intended graduation. See deadlines for submission of Letter of Intent listed on page 5 .

All IS specializations require a minimum of **60 semester hours** of math, computer science, and the natural sciences, which includes a minimum of 12 hours math/computer science and a minimum of 30 hours natural sciences, 12 of which must be at the upper division.

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**I. MATH/COMPUTER SCIENCE (minimum of 12 sem. hrs., min. of 3 in Math and min. of 3 in CSC.)** *Check General Ed. list of courses.*
No duplicate credit is given for MATH 115 and MATH 120.

**A. Mathematics (minimum of 3 sem. hrs.) MATH 102 & MATH 120 are not required but may need to be taken based on placement scores. MATH 123 is required for all IS specializations.**

| Course | Title | Credits | Semester Completed | Transfer/Comments | Use X for courses taken for Gen Ed |
|---|---|---|---|---|---|
| MATH 102 | College Algebra (3) | | | | |
| MATH 120 | Trigonometry (3) | | | | |
| *MATH 123* | *Calculus I (4)* | | | | |
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| | **Lower-division Math Total** | 0 | (3 sem. hrs. minimum) | | |

| Course | Title | Credits | Semester Completed | Transfer/Comments | Use X for courses taken for Gen Ed |
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| | **Upper-division Math Total** | 0 | | | |
| | **Math Subtotal** | 0 | (3 sem. hrs. minimum) | | |

**B. Computer Science (minimum of 3 sem. hrs. required for all IS specializations)**

| Course | Title | Credits | Semester Completed | Transfer/Comments | Use X for courses taken for Gen Ed |
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| | **Comp. Sci. Subtotal** | 0 | (3 sem. hrs. minimum) | | |
| | **Math/Comp. Sci. Total** | 0 | (12 sem. hrs. minimum) | | |

Courses in italics are required for the Pre-Professional Health Sciences Specialization--Pre-Med

**II. NATURAL SCIENCES (minimum of 30 sem. hrs., 12 of which must be upper division)**
**Any courses with ATM/Meteorology, Biology, Chemistry, Geology, Paleontology, or Physics prefix apply. There must be at least 3 sem. hrs. in Biology, 3 sem. hrs. in Chemistry (CHEM 112 or higher), and a 6-sem. hrs. sequence in one of the sciences including at least 1 sem. hr. of laboratory. NOTE: CHEM 106 and PHYS 111 may be used only for elective credit when CHEM 112 and PHYS 211 are taken to fulfill the Science requirement.** ***Check for 6 sem hrs. of General Education approved courses.***

**Lower-division Sciences (Courses numbered 100-299)**

| Course | Title | Credits | Semester Completed | Transfer/Comments | Use X for courses taken for Gen Ed |
|---|---|---|---|---|---|
| *BIOL 121/121L* | *Basic Anatomy and Lab (3/1)* | | | | |
| *BIOL 123/123L* | *Basic Physiology and Lab (3/1)* | | | | |
| *BIOL 151/151L* | *General Biology I and Lab (3/1)* | | | | |
| *BIOL 153/153L* | *General Biology II and Lab (3/1)* | | | | |
| *BIOL 231/231L* | *General Microbiology and Lab (3/1)* | | | | |
| *CHEM 112/112L* | *General Chemistry I and Lab (3/1)* | | | | |
| *CHEM 114/114L* | *General Chemistry II and Lab (3/1)* | | | | |
| *PHYS 111/111L* | *Intro to Physics I and Lab(3/1) and* | | | ***OR*** *PHYS 211 University Physics I and* | |
| *PHYS 113/113L* | *Intro to Physics II and Lab(3/1)* | | | *PHYS 213/213L Univ. Physics II and Lab* | |
| | | | | | |
| | **Lower-division Sciences Total** | 0 | | | |

**Upper-division Sciences (minimum of 12 sem. hrs.)**
**(Courses numbered 300 and above)**

| Course | Title | Credits | Semester Completed | Transfer/Comments |
|---|---|---|---|---|
| *CHEM 326/326L* | *Organic Chemistry I and Lab (3/2)* | | | |
| *CHEM 328/328L* | *Organic Chemistry II and Lab (3/2)* | | | |
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| | **Upper-division Sciences Total** | 0 | ( 12 sem. hrs. minimum) | |

**Natural Sciences Total** **0** (30 sem. hrs. minimum)

**III. IS CORE COURSES (Required for graduation)**

| Course | Title | Credits | Semester Completed | Transfer/Comments |
|---|---|---|---|---|
| *IS 110* | *Explorations (2)* | | | |
| *IS 201* | *Intro to Science, Tech, & Society (3)* | | | |
| *IS 401* | *Writing & Research in the Inter. Sci. (3)* | | | |
| *IS 498* | *Undergraduate Research/Scholarship(3)* | | | |
| | **IS Core Courses Total** | **0** | (11 sem. hrs. required) | |

**IV. PHYSICAL EDUCATION - For students starting Summer 2012 or later, PE credits are no longer required. Students may, however, use PE and MUEN coursework as electvie credit.**

| Course | Title | Credits | Semester Completed | Transfer/Comments |
|---|---|---|---|---|
| MUEN 101 | Choral Ensembles (1 to 2) | | | |
| MUEN 122 | Concert Band (1) | | | |
| PE 100 | | | | |
| PE 103 | Nutrition for Everyday Living | | | |
| PE 105 | Wellness and Physical Fitness | | | |
| PE 113 | Varsity Sport | | | |
| PE 118 | Beginning & Intermediate Swimming | | | |
| | **Physical Education Total** | 0 | (2 sem. hrs. minimum) | |

Courses in italics are required for the Pre-Professional Health Sciences Specialization--Pre-Med

## V. WRITING & COMMUNICATION (All three required, 9 sem. hrs.)

| Course | Title | Credits | Semester Completed | Transfer/Comments |
|---|---|---|---|---|
| *ENGL 101* | *Composition I (3)* | | | |
| *ENGL 279* | *Technical Communications I (3)* | | | |
| *ENGL 289* | *Technical Communications II (3)* | | | |
| | **Writing & Communication Total** | 0 | (9 sem. hrs. required) | |

## VI. HUMANITIES & SOCIAL SCIENCES (24 sem. hrs. required)

**A. Humanities (minimum 12 sem. hrs.)** ARTH, ENGL,FREN,GER,HUM,MUS,MUEN,MUAP,PHIL,SPAN

***NOTE: There must be 6 sem. hrs. from approved General Ed list, and at least 6 sem. hrs. of Upper Division. Not all courses taught by Humanities faculty count for Humanities credit--check catalog. Beginning Fall 1999, HIST 121 & 122 will count only as Humanities credits.***

**Lower-division Humanities (minimum of 6 sem. hrs.)**

| Course | Title | Credits | Semester Completed | Transfer/Comments | Use X for courses taken for Gen Ed |
|---|---|---|---|---|---|
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| | **Lower-division Humanities Subtotal** | 0 | (6 sem. hrs. minimum) | | |

**Upper-division Humanities (minimum of 6 sem. hrs.)**

| Course | Title | Credits | Semester Completed | Transfer/Comments |
|---|---|---|---|---|
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| | **Upper-division Humanities Subtotal** | 0 | (6 sem. hrs. minimum) | |
| | **Humanities Total** | **0** | (12 sem. hrs. minimum) | |

**B. Social Sciences (minimum 12 sem. hrs.)** ANTH, ECON, GEOG, HIST, LAW, POLS, PSYC, SOC

***NOTE: There must be 6 sem. hrs. from approved General Ed list, and at least 6 sem. hrs. of Upper Division. Not all courses taught by Social Sciences faculty count for Social Sciences credit--check catalog. Beginning Fall 1999, HIST 121 & 122 will count only as Humanities credits.***

**Lower-division Social Sciences (minimum of 6 sem. hrs.)**

| Course | Title | Credits | Semester Completed | Transfer/Comments | Use X for courses taken for Gen Ed |
|---|---|---|---|---|---|
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| | **Lower-division Social Sciences Subtotal** | 0 | (6 sem. hrs. minimum) | | |

**Upper-division Social Sciences (minimum of 6 sem. hrs.)**

| Course | Title | Credits | Semester Completed | Transfer/Comments |
|---|---|---|---|---|
| | | | | |
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| | **Upper-division Social Sciences Subtotal** | 0 | (6 sem. hrs. minimum) | |

| | | |
|---|---|---|
| **Social Sciences Total** | **0** | (12 sem. hrs. minimum) |
| **Humanities and Social Sciences Total** | **0** | (24 sem. hrs. minimum) |

Courses in italics are required for the Pre-Professional Health Sciences Specialization--Pre-Med

**VII. PROGRAM-APPROVED ELECTIVES >>>Students are encouraged to consult the admissions requirements of medical school programs to determine which elective courses will be most useful.**

**A. 100-299 Elective courses**

| Course | Title | Credits | Semester Completed | Transfer/Comments |
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| | **Lower-division Electives Subtotal** | 0 | | |

**B. 300 and above Elective courses**

| Course | Title | Credits | Semester Completed | Transfer/Comments |
|---|---|---|---|---|
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| | **Upper-division Electives Subtotal** | 0 | | |

**Program-approved Electives Total** 0

**VIII. UPPER-DIVISION COURSE TOTAL**

| | | |
|---|---|---|
| 300-499 Sciences | 0 | (12 sem. hrs. min.) |
| IS 401 | 0 | ( 3 sem. hrs.) |
| IS 498 | 0 | ( 3 sem. hrs.) |
| 300-499 Humanities | 0 | ( 6 sem. hrs. min.) |
| 300-499 Social Sciences | 0 | ( 6 sem. hrs. min.) |
| 300-499 Electives | 0 | |
| **Total Upper-division Credits** | **0** | (36 sem. hrs. minimum) |

**IX. GENERAL EDUCATION REQUIREMENTS CHECK LIST**

Check the approved list of general education courses. These are the only courses which count. These are to be completed in the first 2 years. **ENTER ONLY THE MINIMUM NUMBER OF CREDITS REQUIRED**.

| | | | |
|---|---|---|---|
| Goal 1 and 2 | ENGL 101 | 0 | ***List specific courses on lines below.*** |
| | ENGL 279 | 0 | ***Use * to indicate cultural diversity*** |
| | ENGL 289 | 0 | ***course (minimum six hours required).*** |
| Goal 3 Social Sciences -- 6 sem. hrs. in 2 disciplines | | | |
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| Goal 4 Humanities -- 6 sem. hrs. in 2 disciplines | | | |
| | | | |
| Goal 5 Mathematics -- 3 sem. hrs. | | | |
| Goal 6 Sciences -- 6 sem. hrs. including 1 laboratory | | | |
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| Goal 7 Cultural Diversity -- 6 sem. hrs. (May include courses taken for Goals 3 & 4. Check General Ed. approved courses.) | | *** | ***Do not include in total. |
| | **General Ed. Total** | 0 | (30 sem. hrs. minimum) |

## X. DEGREE CHECK SUMMARY FOR Pre-Professional Health Science--Pre-Medicine

| | |
|---|---|
| A. Math/Computer Science | |
| 1. Lower-division Math (3 sem. hrs. minimum) | 0 |
| 2. Upper-division Math | 0 |
| 3. Computer Science (3 sem. hrs. minimum) | 0 |
| Math/Comp. Sci. (12 sem. hrs. minimum) | 0 |
| B. Natural Sciences (check for 6 hr. sequence) | |
| 1. Lower-division sciences | 0 |
| 2. Upper-division sciences (12 sem. hrs. min.) | 0 |
| Natural Sciences (30 sem. hrs. minimum) | 0 |
| Math/Comp. Sci. & Natural Sciences (60 sem. hrs. min.) | 0 |
| C. IS Core Courses | |
| 1. IS 110 (2) | 0 |
| 2. IS 201 (3) | 0 |
| 3. IS 401 (3) | 0 |
| 4. IS 498 (3) | 0 |
| IS Core Courses (11 sem. hrs. minimum) | 0 |
| E. Writing and Communication (9 sem. hrs. minimum) | 0 |
| F. Humanities and Social Sciences | |
| 1. Humanities (12 sem. hrs. min. including 6 U.D.) | 0 |
| 2. Social Sciences (12 sem. hrs. min. incl. 6 U.D.) | 0 |
| Humanities & Social Sciences (24 sem. hrs. min.) | 0 |
| G. Program-approved Electives | 0 |
| **Total Credits Required for Graduation** | **0** **120 minimum** |

Use X to indicate minimum requirement met.

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|---|---|
| *Biology (3 cr.)* | |
| *Chemistry (3 cr.)* | |
| *Science (6 cr. hr. sequence)* | |
| *Lab (1 cr.)* | |

## XI. ADDITIONAL REQUIREMENTS

**The completed IS Degree Program Worksheet and the Letter of Intent must be submitted to the IS Office no later than one year before intended date of graduation. This plan of study consists of the reasons for pursuing the IS degree, the specialization chosen, and the reasons for selecting that specialization. This must be done in consultation with assigned IS advisor. Advisor's signature is required.**

**Deadlines for submission of IS Degree Program Worksheet and Letter of Intent:**
May graduation--April 30 of preceding year;
August graduation--July 30 of preceding year;
December graduation--November 30 of preceding year

| **Recommended Additional Science Courses** | |
|---|---|
| BIOL 371/371L | Genetics and Lab |
| BIOL 423/423L | Pathogenesis and Lab |
| BIOL 431/431L | Industrial Microbiology and Lab |
| CHEM 332/332L | Analytical Chemistry and Lab |
| CHEM 340 | Fundamentals of Physical Chemistry |
| Chem 452/452L | Inorganic Chemistry and Lab |
| CHEM 460 | Biochemistry (Highly recommended by USD) |
| CHEM 480 | Toxicology |
| ⇨ Other upper division biology/chemistry courses as appropriate. Upper division biology and other science courses from BHSU, USD, SDSU, or OLC may also be acceptable. | |
| **Recommended Support Courses** | |
| PSYC 101 | General Psychology |
| PSYC 323 | Human Development Throughout the Lifespan |
| PSYC 451 | Psychology of Abnormal Behavior |

**This form may be found at http://is.sdsmst.edu/AreasofSpecialization/PreprofessionalHealthSciences/**