

# B.S. IN EXERCISE SCIENCE - EXERCISE SCIENCE SPECIALIST CONCENTRATION

*College of Health Sciences*

## Curriculum

| Code   | Title  | Credits |
|--|--|---------|
| <b>GENERAL EDUCATION REQUIREMENTS (<a href="http://catalog.wcupa.edu/undergraduate/general-education-requirements/">http://catalog.wcupa.edu/undergraduate/general-education-requirements/</a>)</b>        |  |         |
| <b>Academic Foundations</b>  |  |         |
| First Year Experience requirement  |  | 4       |
| English Composition requirement  |  | 6-7     |
| WRT 120  | Effective Writing I                                    |         |
| WRT 200  | Critical Writing and Research                          |         |
| or WRT 204   | Critical Writing: Approaches to Popular Culture        |         |
| or WRT 205   | Critical Writing: Investigating Experience             |         |
| or WRT 206   | Critical Writing: Multidisciplinary Imagination        |         |
| or WRT 208   | Critical Writing: Entering Public Sphere               |         |
| or WRT 220   | Critical Writing: Special Topics                       |         |
| Mathematics requirement  |  | 3-4     |
| MAT 121  | Introduction to Statistics I                           |         |
| Interdisciplinary requirement  |  | 3       |
| Diverse Communities requirement  |  | 3       |
| Ethics requirement   |  | 3       |
| <b>Distributed Disciplinary Foundations</b>  |  |         |
| Science requirement  |  | 6-8     |
| See Related Requirements under your concentration to fulfill these credits.  |  |         |
| Behavioral & Social Science requirement  |  | 6       |
| PSY 100  | Introduction to Psychology                             |         |
| SOC 100  | Introduction to Sociology                              |         |
| or SOC 240   | Sociology of the Family                                |         |
| Humanities requirement   |  | 6       |
| Arts requirement   |  | 3       |
| <b>ADDITIONAL BACCALAUREATE REQUIREMENTS (<a href="http://catalog.wcupa.edu/undergraduate/general-education-requirements/">http://catalog.wcupa.edu/undergraduate/general-education-requirements/</a>)</b> |  |         |
| <b>University Requirements</b>   |  |         |
| Writing Emphasis requirement   |  | 9       |
| Speaking Emphasis requirement  |  | 9       |
| SPK 208  | Public Speaking  |         |
| or SPK 230   | Business and Professional Speech Communication         |         |
| <b>Degree Requirements</b>   |  |         |
| Capstone requirement   |  | 1-15    |
| <b>MAJOR REQUIREMENTS</b>  |  |         |
| <b>Core Courses <sup>1</sup></b>   |  |         |
| EXS 103  | Fundamentals of Group Exercise and Resistance Training | 3       |
| EXS 180  | Lifetime Fitness Concepts                              | 3       |
| EXS 270  | Motor Learning   | 3       |
| EXS 223  | Kinetic Anatomy  | 2       |
| EXS 280  | The Exercise Science Profession                        | 1       |
| EXS 362  | Biomechanics   | 3       |
| EXL 362  | Biomechanics Laboratory                                | 1       |

|                                     |  |   |
|-------------------------------------|--|---|
| EXS 375                             | Sport and Exercise Psychology  | 3 |
| EXS 380                             | Exercise Physiology  | 3 |
| EXL 380                             | Exercise Physiology Lab  | 1 |
| EXS 381                             | Fitness Assessment - Exercise Prescription                           | 3 |
| EXL 381                             | Fitness Assessment - Exercise Prescription Lab                       | 1 |
| EXS 482                             | Strength Training and Conditioning                                   | 3 |
| EXL 482                             | Strength Training and Conditioning Laboratory                        | 1 |
| EXS 484                             | Organization and Management of Adult Fitness Programs Clinic/Seminar | 3 |
| EXS 486                             | Exercise Prescription - Special Population                           | 3 |
| EXS 489                             | Clinical Exercise Testing and Interpretation                         | 3 |
| EXL 489                             | Clinical Exercise Testing and Interpretation Laboratory              | 1 |
| <b>Related/Cognate Requirements</b> |  |   |
| BIO 259                             | Human Anatomy and Physiology I                                       | 4 |
| BIO 269                             | Human Anatomy and Physiology II                                      | 4 |
| NTD 303                             | Introductory Principles Human Nutrition                              | 3 |

### Capstone Requirement

|         |                           |   |
|---------|---------------------------|---|
| EXS 490 | Internship <sup>1,2</sup> | 3 |
|---------|---------------------------|---|

### Concentration Requirements

Students must take the required courses in their concentration to reach the 120 credits required for graduation.

|                                       |            |
|---------------------------------------|------------|
| <b>Total Minimum Credits Required</b> | <b>120</b> |
|---------------------------------------|------------|

## Exercise Science Specialist Concentration

Students graduating as an Exercise Science Specialist are prepared to conduct adult fitness programs, prescribe and administer exercise in settings such as hospitals, clinics, corporations, or community centers, and work as personal trainers or strength and conditioning coaches.

| Code                        | Title  | Credits |
|-----------------------------|--|---------|
| <b>Related Requirements</b> |  |         |
| BIO 100                     | Basic Biological Science                         | 3       |
| or BIO 110                  | General Biology I                                |         |
| CHE 107                     | General Chemistry for Allied Health Sciences     | 4       |
| or CHE 103                  | General Chemistry I                              |         |
| CRL 107                     | General Chemistry Lab for Allied Health Sciences | 1       |
| or CRL 103                  | General Chemistry I Lab                          |         |
| PHY 100                     | Elements of Physical Science <sup>3</sup>        | 3       |
| SMD 271                     | First Aid and Athletic Training                  | 2       |
| or SMD 204                  | First Aid for Health Professionals               |         |

### Student Electives

|  |      |
|--|------|
| Students must take electives to fulfill 120 credit hour minimum. | 9-10 |
|--|------|

<sup>1</sup> In order to graduate, a minimum grade of C- or better in all exercise science core courses is required.

<sup>2</sup> This course fulfills the Capstone requirement.

<sup>3</sup> PHY 100 or above

## Accelerated B.S. in Exercise Science - Exercise Science Specialist Concentration to M.S. in Exercise and Sport Science

Any Exercise Science major with junior-standing in the Exercise Science Specialist Concentration and a 3.0 cumulative GPA or higher may substitute up to 12 graduate credits to satisfy the B.S. program.

| Code    | Title  | Credits |
|---------|--|---------|
| EXS 570 | Concepts of Exercise and Sport Science         | 3       |
| EXS 572 | Advanced Motor Learning                        | 3       |
| EXS 640 | Applied Sport and Exercise Psychology          | 3       |
| EXS 641 | Group Dynamics in Sport and Exercise           | 3       |
| EXS 681 | Metabolic, Endocrine, and Digestive Physiology | 3       |
| EXS 687 | Neuromuscular Physiology                       | 3       |
| EXS 688 | Cardiopulmonary Physiology                     | 3       |
| EXS 585 | Biomechanics                                   | 3       |
| EXS 582 | Pathokinesiology                               | 3       |

## Sample Course Plan

To track their individual degree progress, students are advised to access their Degree Progress Report (DPR) via myWCU regularly. For more information, visit [wcupa.edu/DegreeProgressReport](http://wcupa.edu/DegreeProgressReport) (<http://wcupa.edu/degreeprogressreport/>).

The following is a sample suggested course sequence for this program; course offerings and availability are not guaranteed. Students should consult their academic advisor with any questions.

| Course                                | Title  | Credits      |
|---------------------------------------|--|--------------|
| <b>Year One</b>                       |  |              |
| <b>Fall</b>                           |  |              |
| EXS 103<br>or<br>EXS 180              | Fundamentals of Group Exercise and Resistance Training<br>or Lifetime Fitness Concepts | 3            |
| BIO 100                               | Basic Biological Science   | 3            |
| SOC 100<br>or<br>SOC 240              | Introduction to Sociology<br>or Sociology of the Family                                | 3            |
| WRT 120<br>or<br>WRT 123              | Effective Writing I<br>or Effective Writing with Supplemental Writing Workshop         | 3-4          |
| FYE 100X                              | First Year Experience  | 4            |
| <b>Credits</b>                        |  | <b>16-17</b> |
| <b>Spring</b>                         |  |              |
| EXS 180<br>or<br>EXS 103              | Lifetime Fitness Concepts<br>or Fundamentals of Group Exercise and Resistance Training | 3            |
| BIO 259                               | Human Anatomy and Physiology I   | 4            |
| MAT 121                               | Introduction to Statistics I   | 3            |
| PSY 100                               | Introduction to Psychology   | 3            |
| WRT 2XX                               | 200-Level WRT Course   | 3            |
| <b>Credits</b>                        |  | <b>16</b>    |
| <b>Year Two</b>                       |  |              |
| <b>Fall</b>                           |  |              |
| EXS 223<br>& EXS 280<br>or<br>EXS 270 | Kinetic Anatomy<br>or Motor Learning   | 3            |

|                            |                                 |   |
|----------------------------|---------------------------------|---|
| BIO 269                    | Human Anatomy and Physiology II | 4 |
| Gen Ed Course <sup>1</sup> |                                 | 3 |
| Gen Ed Course <sup>1</sup> |                                 | 3 |
| Gen Ed Course <sup>1</sup> |                                 | 3 |

**Credits 16**

|  |   |   |
|--|---|---|
| <b>Spring</b>                              |   |   |
| EXS 270<br>or<br>EXS 223<br>and<br>EXS 280 | Motor Learning<br>or Kinetic Anatomy <i>and</i> The Exercise Science Profession | 3 |
| PHY 100                                    | Elements of Physical Science  | 3 |
| NTD 303                                    | Introductory Principles Human Nutrition   | 3 |
| Gen Ed Course <sup>1</sup>                 |   | 3 |
| Gen Ed Course <sup>1</sup>                 |   | 3 |

**Credits 15**

|                          |  |     |
|--------------------------|--|-----|
| <b>Year Three</b>        |  |     |
| <b>Fall</b>              |  |     |
| EXS 362<br>& EXL 362     | Biomechanics<br>and Biomechanics Laboratory  | 4   |
| EXS 380<br>& EXL 380     | Exercise Physiology<br>and Exercise Physiology Lab   | 4   |
| SMD 271<br>or<br>SMD 204 | First Aid and Athletic Training<br>or First Aid for Health Professionals                             | 2-3 |
| CHE 107<br>& CRL 107     | General Chemistry for Allied Health Sciences<br>and General Chemistry Lab for Allied Health Sciences | 5   |

**Credits 15-16**

|                            |  |   |
|----------------------------|--|---|
| <b>Spring</b>              |  |   |
| EXS 375                    | Sport and Exercise Psychology  | 3 |
| EXS 381<br>& EXL 381       | Fitness Assessment - Exercise Prescription<br>and Fitness Assessment - Exercise Prescription Lab | 4 |
| Gen Ed Course <sup>1</sup> |  | 3 |
| Gen Ed Course <sup>1</sup> |  | 3 |
| Gen Ed Course <sup>1</sup> |  | 3 |

**Credits 16**

|                            |  |   |
|----------------------------|--|---|
| <b>Year Four</b>           |  |   |
| <b>Fall</b>                |  |   |
| EXS 482                    | Strength Training and Conditioning                                   | 3 |
| EXS 484                    | Organization and Management of Adult Fitness Programs Clinic/Seminar | 3 |
| EXS 486                    | Exercise Prescription - Special Population                           | 3 |
| Gen Ed Course <sup>1</sup> |  | 3 |
| Gen Ed Course <sup>1</sup> |  | 3 |

**Credits 15**

|                            |   |     |
|----------------------------|---|-----|
| <b>Spring</b>              |   |     |
| EXS 489<br>& EXL 489       | Clinical Exercise Testing and Interpretation<br>and Clinical Exercise Testing and Interpretation Laboratory | 4   |
| EXS 490                    | Internship  | 3-6 |
| Gen Ed Course <sup>1</sup> |   | 3   |
| Gen Ed Course <sup>1</sup> |   | 3   |

**Credits 13-16**

**Total Credits 122-127**

<sup>1</sup> Choose from list: 1 interdisciplinary course, 1 diverse communities course, 3 speaking emphasis courses, 3 writing emphasis courses, 1 ethics course, 1 arts course, and 2 humanities courses. Double up on gen ed courses when possible.