**Master of Science (M.S.), Major in Exercise Science**

Course Work Requirements

**Non-Thesis Option**

|  |  |
| --- | --- |
| **Exercise Science Core Courses** | **15** |
|  |  |
| ESS 5304 Motor Learning and Performance |  |
| ESS 5309 Biomechanics for Exercise and Sports Science |  |
| ESS 5346 Research Methods in Health and Human Performance |  |
| ESS 5356 Applied Statistics in Health and Human Performance |  |
| Choose **one** of the following courses: |  |
| ESS 5306 Advanced Exercise Physiology |  |
| ESS 5310 Cardiopulmonary Physiology |  |
| ESS 5311 Neuromuscular Physiology |  |
|  |  |
| **Exercise Science Electives** | **15** |
| Choose **fifteen** hours from the following courses: |  |
| ESS 5110 Graduate Research Seminar (can be taken up to 3 times) |  |
| ESS 5305 Advanced Fitness Assessment and Exercise Prescription |  |
| ESS 5306 Advanced Exercise Physiology |  |
| ESS 5307 Advanced Resistance Training |  |
| ESS 5308 Physical Activity, Disease Prevention and Treatment |  |
| ESS 5310 Cardiopulmonary Physiology |  |
| ESS 5311 Neuromuscular Physiology |  |
| ESS 5312 Applied Exercise Metabolism |  |
| ESS 5322 Inclusion and Diversity in Physical Activity |  |
| ESS 5327 Application of Strength and Conditioning Principles |  |
| ESS 5398 Internship in Exercise and Sports Science |  |
| ESS 5344 Science of Teaching in Health and Human Performance |  |
| ESS 5347 Independent Study In Exercise Science |  |
| ESS 5353 Curriculum and Instruction in Physical Activity and Sport |  |
| ESS 5354 Developmental Sports Education: Youth Participants |  |
| ESS 5355 Developmental Sports Education: High-Level Athletes |  |
| ESS 5698 Internship in Exercise and Sports Science |  |
|  |  |
| **Prescribed Electives** |  |
| Choose **six** hours fromof the following courses | **6** |
| AT 5310 Proprioception and Neuromuscular Control in Rehabilitation |  |
| AT 5311 Biomechanics of Muscular Skeletal Injury |  |
| BIO 5441 Cellular Physiology |  |
| PH 5321 Theoretical Foundations of Health Education |  |
| NUTR 5302G Pediatric Obesity |  |
| NUTR 5364 The Science of Nutrition and Exercise |  |
| NUTR 5366 Nutrient Metabolism |  |
| PHIL 5322 Professional Ethics |  |
| PHIL 5326 Philosophy and Sport |  |
| PHIL 5327 Bioethics |  |
| PSY 5335 Foundations of Health Psychology |  |
| **Total credit hours** | **36** |

**Master of Science (M.S.), Major in Exercise Science**

Course Work Requirements

**Thesis Option**

|  |  |
| --- | --- |
| **Exercise Science Core Courses** | **15** |
| ESS 5304 Motor Learning and Performance |  |
| ESS 5309 Biomechanics for Exercise and Sports Science |  |
| ESS 5346 Research Methods in Health and Human Performance |  |
| ESS 5356 Applied Statistics in Health and Human Performance |  |
| Choose **one** of the following courses: |  |
| ESS 5306 Advanced Exercise Physiology |  |
| ESS 5310 Cardiopulmonary Physiology |  |
| ESS 5311 Neuromuscular Physiology |  |
| **Exercise Science Electives** | **12** |
| **Choose twelve hours from the following courses** |  |
| ESS 5110 Graduate Research Seminar (can be taken up to 3 times) |  |
| ESS 5305 Advanced Fitness Assessment and Exercise Prescription |  |
| ESS 5306 Advanced Exercise Physiology |  |
| ESS 5307 Advanced Resistance Training |  |
| ESS 5308 Physical Activity, Disease Prevention and Treatment |  |
| ESS 5310 Cardiopulmonary Physiology |  |
| ESS 5311 Neuromuscular Physiology |  |
| ESS 5312 Applied Exercise Metabolism |  |
| ESS 5322 Inclusion and Diversity in Physical Activity |  |
| ESS 5327 Application of Strength and Conditioning Principles |  |
| ESS 5398 Internship in Exercise and Sports Science |  |
| ESS 5344 Science of Teaching in Health and Human Performance |  |
| ESS 5347 Independent Study in Exercise Science |  |
| ESS 5353 Curriculum and Instruction in Physical Activity and Sport |  |
| ESS 5354 Developmental Sports Education: Youth Participants |  |
| ESS 5355 Developmental Sports Education: High-Level Athletes |  |
| ESS 5698 Internship in Exercise and Sports Science |  |
| **Prescribed Electives** | **3** |
| Choose **three** hours from following courses |  |
| AT 5310 Proprioception and Neuromuscular Control in Rehabilitation |  |
| AT 5311 Biomechanics of Muscular Skeletal Injury |  |
| BIO 5441 Cellular Physiology |  |
| PH 5321 Theoretical Foundations of Health Education |  |
| NUTR 5302G Pediatric Obesity |  |
| NUTR 5364 The Science of Nutrition and Exercise |  |
| NUTR 5366 Nutrient Metabolism |  |
| PHIL 5322 Professional Ethics |  |
| PHIL 5326 Philosophy and Sport |  |
| PHIL 5327 Bioethics |  |
| PSY 5335 Foundations of Health Psychology |  |
|  |  |
| **Thesis** | **6** |
| ESS 5399 A or ESS 5399 B |  |
| ESS 5199B or ESS 5299 B |  |
| **Total** | 36 |