

## **Exercise Science**

**Annual Assessment 2016-2017  
Created on the Assessment Insight System**

## Annual Assessment

### Exercise Science

#### Program Profile

##### Program Mission Statement

*Please insert your program mission statement here*

William Woods University students will be prepared for professions that promote physical fitness, exercise, overall health and sports specific training at various levels through academic study, practical hands-on experience and research opportunities. It is our mission to launch students onto a path honoring ethical values, free of limitations, and promoting lifelong learning for their own success and positive impact on their environment. (Draft 8-17-2016, C. Robb)

#### Program Data

##### Delivery Method

Traditional On Campus (selected)

Online

Hybrid

##### Students Majors 2015-2016

32

##### Student Minors 2015-2016

11

##### Student Majors 2016-2017

33

##### Student Minors 2016-2017

5

##### Concentrations 2015-2016

*If your program contains concentrations, please list the concentrations and the number of students identified within each concentration.*

##### Concentrations 2016-2017

*If your program contains concentrations, please list the concentrations and the number of students identified with each concentration.*

#### Student Demographics

*Program goals for student retention, persistence and degree completion are? What do the persistence numbers mean to the faculty in the program? Are your persistence numbers what you expected? If not, how could the numbers be improved? What is the optimal enrollment for the program?*

## Is the Program Externally Accredited

Yes  
No (selected)

### External Accreditation

Name the Accrediting Agency or entity including the last review/approval. Is there an accrediting body for the field of study? If yes, what is the name of the group. Is the program seeking accreditation? If no, why?

## Program Assessment

### Standard/Outcome

| Identifier | Description                                                                                                                                                                                         |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WWU2016.1  | Major Field Competence: Students will demonstrate excellence in an academic or professional discipline, and engage in the process of academic discovery.                                            |
| WWU2016.2  | Ethics: Students will exhibit values and behaviors that address self- respect and respect for others that will enable success and participation in the larger society.                              |
| WWU2016.3  | Self-Liberation: Students will develop an honest understanding and appreciation of themselves and others resulting in an ability to make individual decisions.                                      |
| WWU2016.4  | Lifelong Education: Students will possess an intellectual curiosity and desire for continual learning both within and beyond formal education in preparation for participation in a global society. |

### Additional Standards/Outcomes

| Identifier | Description                                                                                                                                                                     |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EXS.1      | Explain the concepts and theories of human physiology and specifically apply that knowledge to exercise situations. (CMA 1)                                                     |
| EXS.2      | Conduct health appraisal, fitness testing and other scientific testing methods considering risk factors and physical status in order to prescribe exercise. (CMA 2, 3, 4)       |
| EXS.3      | Identify anatomical structures and their influences on human movement in order to improve efficiency, effectiveness and safety in activity. (CMA 10)                            |
| EXS.4      | Demonstrate and describe proper exercise techniques for aerobic, anaerobic, speed, strength, flexibility and plyometric training. (CMA 7, 10)                                   |
| EXS.5      | Design and prescribe exercise programs for various populations to achieve a better quality of life. (CMA 7)                                                                     |
| EXS.6      | Explain and apply sound nutritional concepts for healthy weight management. (CMA 8)                                                                                             |
| EXS.7      | Examine program administration techniques and the law as it pertains to the business of exercise and recognize issue of liability in order to encourage safe practice. (CMA 11) |
| EXS.8      | Identify psychological and sociological principles as related to participants in sport and exercise. (CMA 9)                                                                    |

### General Education Alignment to Program

How do the General Education criteria align with the Program Objectives? What courses within your program build upon skills learned in general education courses (please list the program course and the general education criteria). The General Education clusters are: Critical Analysis, Creative Expression, Quantitative Inquiry, and Society & the Individual. See attached for more detailed breakdown.

Exercise Science draws intensely on the skills gained in the General Education Program. Students must be able to analyze data for value and critique the work of others in the field of study. Exercise Science students must be able to quantitatively and qualitatively assess research for evidence from which to design fitness, exercise and nutritional plans to

promote good health and measure success. As fitness and optimal health is an issue for everyone, Exercise Science students must be able to relate to a diverse culture, communicate effectively, strive for ethical behavior and direction and draw from historical events that impacted failure and success of those that have come before them in exercise and sport. (Draft 08-17-2016, C. Robb)

GE\_Cluster\_Descriptions\_FINAL\_Version\_Approved.docx

## Curriculum Map

A - Assessed

I - Introduced

R - Reinforced

M - Master

### Human Physiology and Exercise

|                                                                                                                                          | EXS 103 | PED 131 | PED 205 | PED 245 | EXS 310 | PED 321 | EXS 390 | EXS 460 | Student Performance Review |
|------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|----------------------------|
| <b>EXS.1</b> Explain the concepts and theories of human physiology and specifically apply that knowledge to exercise situations. (CMA 1) | I       | I       | I       | R, M    | M       | R, M    | M, A    | M, A    | A                          |

### Testing and Prescription

|                                                                                                                                                                                        | EXS 180 | PED 131 | EXS 315 | EXS 405 | EXS 390 | EXS 460 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|
| <b>EXS.2</b> Conduct health appraisal, fitness testing and other scientific testing methods considering risk factors and physical status in order to prescribe exercise. (CMA 2, 3, 4) | I       | I       | A, M, R | R, M    | M, A    | M       |

### Anatomy and Kinesiology

|                                                                                                                                                                   | EXS 180 | PED 131 | PED 205 | PED 245 | PED 321 | EXS 315 | EXS 405 | EXS 390 | EXS 460 | Student Performance Review |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------------------|
| <b>EXS.3</b> Identify anatomical structures and their influences on human movement in order to improve efficiency, effectiveness and safety in activity. (CMA 10) | I       | I       | I       | R, M    | M, A    | M       | M       | M, A    | M       | A                          |

**Exercise Technique and Prescription**

|                                                                                                                                                            | PED<br>131 | EXS<br>180 | EXS<br>315 | EXS<br>390 | EXS<br>405 | EXS<br>460 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|------------|------------|------------|------------|
| <b>EXS.4</b> Demonstrate and describe proper exercise techniques for aerobic, anaerobic, speed, strength, flexibility and plyometric training. (CMA 7, 10) | I          | I          | R          | M, A       | M, A       | M, A       |

**Exercise Program Design and Prescription**

|                                                                                                                          | EXS<br>180 | PED<br>131 | EXS<br>315 | EXS<br>405 | EXS<br>390 | EXS<br>460 | Student<br>Performance<br>Review |
|--------------------------------------------------------------------------------------------------------------------------|------------|------------|------------|------------|------------|------------|----------------------------------|
| <b>EXS.5</b> Design and prescribe exercise programs for various populations to achieve a better quality of life. (CMA 7) | I          | I          | R          | R, M,<br>A | M, A       | M          | A                                |

**Nutrition**

|                                                                                                  | EXS<br>180 | EXS<br>103 | PED<br>131 | EXS<br>310 | EXS<br>405 | EXS<br>390 | EXS<br>460 |
|--------------------------------------------------------------------------------------------------|------------|------------|------------|------------|------------|------------|------------|
| <b>EXS.6</b> Explain and apply sound nutritional concepts for healthy weight management. (CMA 8) | I          | I          | R          | M, A       | M          | M, A       | M          |

**Program Administration**

|                                                                                                                                                                                              | EXS<br>180 | BUS<br>206 | EXS<br>390 | SMG<br>310 | EXS<br>460 | Student<br>Performance<br>Review |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|------------|------------|------------|----------------------------------|
| <b>EXS.7</b> Examine program administration techniques and the law as it pertains to the business of exercise and recognize issue of liability in order to encourage safe practice. (CMA 11) | I          | R, M       | A          | R, M,<br>A | A          | A                                |

**Psychology and Sociology**

|                                                                                                                           | EXS<br>180 | PED<br>220 | EXS<br>390 | PSY<br>401 | EXS<br>460 | Student<br>Performance<br>Review |
|---------------------------------------------------------------------------------------------------------------------------|------------|------------|------------|------------|------------|----------------------------------|
| <b>EXS.8</b> Identify psychological and sociological principles as related to participants in sport and exercise. (CMA 9) | I          | R, M       | M, A       | R, M,<br>A | M          | A                                |

## **Assessment Findings**

### **Assessment Findings for the Assessment Measure level for Human Physiology and Exercise**

No findings identified within the program

### **Assessment Findings for the Assessment Measure level for Testing and Prescription**

No findings identified within the program

### **Assessment Findings for the Assessment Measure level for Anatomy and Kinesiology**

No findings identified within the program

### **Assessment Findings for the Assessment Measure level for Exercise Technique and Prescription**

No findings identified within the program

### **Assessment Findings for the Assessment Measure level for Exercise Program Design and Prescription**

No findings identified within the program

### **Assessment Findings for the Assessment Measure level for Nutrition**

No findings identified within the program

### **Assessment Findings for the Assessment Measure level for Program Administration**

No findings identified within the program

### **Assessment Findings for the Assessment Measure level for Psychology and Sociology**

No findings identified within the program

### **Analysis of the Assessment Process**

*Describe your assessment process; clearly articulate how the program is using course work and or assessment day activities for program assessment. Note any changes that occurred to that process since the previous year. Discuss what activities were successful at assessment and which ones were not as helpful and why. Please include who met to discuss the changes (unless you are a program of one person) and when you met. – Include a discussion on the process for collection and analysis of program data.*

The Sport Sciences Department is engaged in a major curriculum overhaul. With certification in Athletic Training moving to a Master's Level minimum degree and other various factors influencing the educational process, the department has been transitioning into a completely different method of inducting students into Sport Sciences. All majors will start their first year as an Exercise Science Major and then move onto various concentrations as they progress through the coursework. Much of the department's energies have been devoted to constructing core curriculum courses objectives in order to build a foundation of educational programming to best prepare all students for success in their chosen field.

Assessment Findings For:

1. Human Physiology and Exercise- The Exercise Sciences section of the Certified Strength and Conditioning Specialist (CSCS) Practice Test given during the Student Performance Days assessed 17 juniors and seniors. Twenty-four percent (24%, 4/17) had a passing score (70% or higher). Juniors had a pass rate of 14% while the seniors had a 38% pass rate. No labs were done in this class. We are currently working toward obtaining hardware and software (iWorx) exercise physiology testing equipment to enhance laboratory activities done in Physiology of Exercise (EXS 322). We hope that this will help students improve test scores.
2. Testing and Prescription- Student Performance Day result on Testing and Evaluation from the CSCS Practice test: 29% of juniors and seniors had a passing score, 70% or higher. (0% on juniors, 63% of seniors passed, N=17).
3. Anatomy and Kinesiology- In Kinesiology, students selected a motor skill to analyze in which structure, muscle involvement, technique, safety, efficiency and effectiveness were all considered. This paper was to be supported by research from reliable sources. Of the 23 Sport Sciences majors, 13 reached or exceeded the benchmark of 75% while 10 did not. This class is important for all majors, yet when questioning the different major directors, each had different ideas on what should be covered in this class. Further examination of the content of this class will be investigated prior to the start of the 2017-2018 academic year.
4. Exercise Technique and Prescription- Student Performance Day result overall resulted in a pass rate of 12% for juniors and seniors in the Exercise Technique Domain of the CSCS Practice Exam. (0% of juniors passed, 25% of seniors, N=17)
5. Exercise Program Design and Prescription- Student Performance Day result on Testing and Evaluation from the CSCS Practice test: from the Program Design Domain of the CSCS Practice Exam- 12% overall pass rate (0% juniors and 25% seniors, N=17).
6. Nutrition- Students were assigned a specific client to work with on a nutritional plan. Benchmark was set at a 75% pass rate. 80% of students reached that benchmark. (N=10) Internship students (N=4) were not involved in nutritional analysis.
7. Program Administration- Student Performance Day result on Testing and Evaluation from the CSCS Practice test: 29% of juniors and seniors had a passing score, 70% or higher. (43% on juniors, 25% of seniors passed, N=17)
8. Psychology and Sociology- There were no benchmarks established for this objective. We are currently working to nail down specific assessment tools to identify success in these areas.

We have since revised the curriculum and are working on appropriate methods for assessment and benchmarks.

### Improvement Narrative List

## Program Activities

### Student Performance Review

*Describe the department assessment day activities if not already described previously. Please articulate the nature of the assessments are conducted, explain the process for assessment that happens on these two days. Include the schedule of assessment day for your program. What does the data and outcomes tell you? What changes will you make as a result of the data? What areas are successful for the program?*

### Assessment Findings For:

1. Human Physiology and Exercise- The Exercise Sciences section of the Certified Strength and Conditioning Specialist (CSCS) Practice Test given during the Student Performance Days assessed 17 juniors and seniors. Twenty-four percent (24%, 4/17) had a passing score (70% or higher). Juniors had a pass rate of 14% while the seniors had a 38% pass rate. No labs were done in this class. We are currently working toward obtaining hardware and software (iWorx) exercise physiology testing equipment to enhance laboratory activities done in Physiology of Exercise (EXS 322). We hope that this will help students improve test scores.
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8. Psychology and Sociology- There were no benchmarks established for this objective. We are currently working to nail down specific assessment tools to identify success in these areas.

### Student Performance Review Schedule

*Upload the program schedule for students during Performance Reviews.*

### Senior Showcase

*Describe program Senior Showcase activities if not detailed previously in the report? What benefit does the program gain from the activities? What if any assessment of students happens during this event? What changes if any will occur due to what is learned by faculty on Senior Showcase?*

Six of seven seniors presented poster presentations on research design projects from the capstone class, Principles of Strength and Conditioning. No assessment rubric was used this year, but will be developed in the future. Their class grade on the assignment was an 89% average as determined by a class writing rubric.

### Assessment Rubrics

*Upload rubrics used for Senior Showcase or Student Performance Reviews for student assessment.*

### Service Learning

*Does the Program include projects/ course content that uses the philosophy of service learning?*

Yes

No

**Service Learning Component**

*If so, how is service learning infused in the coursework within your department? Is service or community engagement in the program mission? Describe the Service Learning Activities that your students and department engaged in this past year. How did the activities improve student learning? How did the activities benefit the community?*

Students in Advanced Human Nutrition are involved in serving at the Fulton Food Pantry in conjunction with a study in Hunger in America. Students get the opportunity to look at different viewpoints on the issue, efforts to improve the situation and look critically at what is being done to combat the problem. This activity has been eye-opening to the students and many decide to continue volunteering at the Food Pantry.

**LEAD Events**

*Highlight lead events sponsored by program faculty that are connected to program or general education objectives for the past academic year. Include a total number of lead events program faculty sponsored.*

During Orientation, 2 Exercise Science students spoke to the incoming freshman about nutrition, stress and exercise. The presentation was well received and freshmen appeared to appreciate information delivered by their peers.

Exercise classes were offered to students who could work out several times a month for 1 LEAD point.

The Exercise Science Student Organization sponsored a speaker from McCallum House. Two counselors from the center spoke about eating disorders and offered resources for helping those with eating disorders.

An Exercise/ Dance class learned a version of Michael Jackson's Thriller choreography for one LEAD Point.

**Student Accomplishments**

*Highlight special examples of student successes in the field (academic: mentor-mentee, conference presentations, competitive internship, journal acceptance; extra-curricular: horse show championship, art exhibit). This is for any accomplishments that a student achieved outside of course work or the normal expectations of student success.*

Students generally take certifying tests after graduation.

|                                                          | <b>3.000 Assessment Reflects Best Practices</b>                                                                                                                                                                                                                                                                          | <b>2.000 Assessment Meets the Expectations of the University</b>                                                                                                                                                                                                                                                              | <b>1.000 Assessment Needs Development</b>                                                                                                                                                                                                                                                                      | <b>0.000 Assessment is Inadequate</b>                                                                                                                                                                                                                                                                             | <b>N/A</b>                              |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Learning Objectives weight: 1.000                        | <ul style="list-style-type: none"> <li>• Detailed, measurable program learning objectives</li> <li>• Objectives are shared with students and faculty</li> </ul>                                                                                                                                                          | <ul style="list-style-type: none"> <li>• Measurable program learning objectives.</li> <li>• Learning objectives are available to students.</li> </ul>                                                                                                                                                                         | <ul style="list-style-type: none"> <li>• Program learning objectives are identified and are generally measurable</li> </ul>                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>• Program learning objectives are not clear or measurable</li> </ul>                                                                                                                                                                                                       | <input checked="" type="checkbox"/> N/A |
| Comment:                                                 |                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                   |                                         |
| Assessment Measures weight: 1.000                        | <ul style="list-style-type: none"> <li>• Multiple measures are used to assess a student-learning objectives.</li> <li>• Rubrics or guides are used for the measures.</li> <li>• All measurements are clearly described.</li> <li>• External evaluation of student learning included.</li> </ul>                          | <ul style="list-style-type: none"> <li>• Assessment measures relate to program learning objectives.</li> <li>• Various measures are used to assess student learning.</li> <li>• Measures chosen provide useful information about student learning.</li> </ul>                                                                 | <ul style="list-style-type: none"> <li>• Assessment focuses on class content only.</li> <li>• Minimal description of how the assessment relates to the objective.</li> <li>• Minimal assessment measures established.</li> </ul>                                                                               | <ul style="list-style-type: none"> <li>• Assessment measures not connected to objectives.</li> <li>• Assessment measures are not clear.</li> <li>• No assessment measures are established.</li> </ul>                                                                                                             | <input checked="" type="checkbox"/> N/A |
| Comment:                                                 |                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                   |                                         |
| Assessment Results weight: 1.000                         | <ul style="list-style-type: none"> <li>• All objectives are assessed annually, or a rotation schedule is provided.</li> <li>• Data are collected and analyzed to show learning over time.</li> <li>• Standards for performance and gaps in student learning are clearly identified.</li> </ul>                           | <ul style="list-style-type: none"> <li>• Most objectives assessed annually.</li> <li>• Data collected and analyzed showing an annual snapshot of student learning.</li> <li>• Data are used to highlight gaps in student learning.</li> <li>• Some data from non-course based content.</li> </ul>                             | <ul style="list-style-type: none"> <li>• Data collected for at least one program objective.</li> <li>• Data collection is incomplete.</li> <li>• Gaps in student learning not identified.</li> <li>• Lacking external data to support course data.</li> </ul>                                                  | <ul style="list-style-type: none"> <li>• Learning objectives are not routinely assessed.</li> <li>• Routine data is not collected.</li> <li>• No discussion on gaps in student learning.</li> <li>• No use of external data to support student learning.</li> <li>• Assessment data not yet collected.</li> </ul> | <input checked="" type="checkbox"/> N/A |
| Comment:                                                 |                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                   |                                         |
| Faculty Analysis and Conclusions weight: 1.000           | <ul style="list-style-type: none"> <li>• Data is shared that incorporates multiple faculty from the program.</li> <li>• Discussions on data results incorporate multiple faculty.</li> <li>• Opportunities for adjunct faculty to participate.</li> <li>• Includes input from external sources when possible.</li> </ul> | <ul style="list-style-type: none"> <li>• Multiple program faculty receive assessment results.</li> <li>• Assessment results are discussed.</li> <li>• Specific conclusions about student learning are made based on the available assessment results.</li> </ul>                                                              | <ul style="list-style-type: none"> <li>• Minimal faculty input about results is sought.</li> <li>• Data not used to determine success or not to the objective.</li> <li>• Minimal conclusions made.</li> </ul>                                                                                                 | <ul style="list-style-type: none"> <li>• Faculty input is not sought.</li> <li>• Conclusions about student learning are not identified.</li> <li>• N/A Program recently started or too few graduates to suggest any changes.</li> </ul>                                                                           | <input checked="" type="checkbox"/> N/A |
| Comment:                                                 |                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                   |                                         |
| Actions to Improve Learning and Assessment weight: 1.000 | <ul style="list-style-type: none"> <li>• All assessment methods, timetable for assessing, and evaluating the effectiveness modifications are included.</li> <li>• Changes to assessment are inclusive of multiple faculty.</li> <li>• Description of changes is detailed and linked to assessment results.</li> </ul>    | <ul style="list-style-type: none"> <li>• More than one change to assessment is proposed, timetable for assessment, and evaluating the change is provided.</li> <li>• Changes to assessment measures is highlighted.</li> <li>• Changes are realistic, with a good probability of improving learning or assessment.</li> </ul> | <ul style="list-style-type: none"> <li>• At least one change to improve learning or assessment is identified.</li> <li>• The proposed action(s) relates to faculty conclusions about areas for improvement.</li> <li>• Adjustments to the assessment are proposed but not clearly connected to data</li> </ul> | <ul style="list-style-type: none"> <li>• Lacking actions to improve student learning.</li> <li>• Actions discussed lack supportive data.</li> <li>• Lacking discussion of the effectiveness of the assessment plan</li> </ul>                                                                                     | <input checked="" type="checkbox"/> N/A |
| Comment:                                                 |                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                   |                                         |