Central Washington University  
Assessment of Student Learning  
Department and Program Report

Please enter the appropriate information concerning your student learning assessment activities for this year.

Academic Year of Report: _2009-2010____ College:   _CEPS_____________  
Department _Nutrition, Exercise and Health Sciences  Program: _Exercise Science (Undergraduate)

1. **What student learning outcomes were assessed this year, and why?**

In answering this question, please identify the specific student learning outcomes you assessed this year, reasons for assessing these outcomes, with the outcomes written in clear, measurable terms, and note how the outcomes are linked to department, college and university mission and goals.

Our department assessed three student learning outcomes this year. These appear as student learning outcomes 1,3, and 5 on the Student Learning Assessment Plan. The outcomes appear below.

1. **Student Learning Outcome 1 (Student Learning Assessment Plan).** Students will demonstrate knowledge of structural components and the interrelationships between these structural components in the human organism. This outcome is related to the program./departmental Goal 1 Students will demonstrate the knowledge, skills, and attitudes to be successful in the variety of fields encompassed within Exercise Science. This goal is related to the college goal of “Provide for an outstanding academic and professional growth experience for students at all CWU locations” and the university goal to “Maintain and strengthen an outstanding academic and student life on the Ellensburg campus”. This goal was selected as it is one of the foundations of exercise science and so, fundamental to the discipline and we wanted to see if the goal was met.

2. **Student Learning Outcome 3 (Student Learning Assessment Plan).** Students will be able to describe the impact of personal behaviors - lifestyle decisions (e.g.) physical activity and energy balance on human structural and functional integrity. This outcome is related to the program./departmental Goal 1 Students will demonstrate the knowledge, skills, and attitudes to be successful in the variety of fields encompassed within Exercise Science. This goal is related to the college goal of “Provide for an outstanding academic and professional growth experience for students at all CWU locations” and the university goal to “Maintain and strengthen an outstanding academic and student life on the Ellensburg campus”. This goal was selected because behavioral choices can affect a person’s health, wellbeing, and physical performance. This is an important area of study in exercise science and we wanted to see how are curriculum was performing.

3. **Student Learning Outcome 5 (Student Learning Assessment Plan).** Students will be able to apply the knowledge and skills developed and honed through the many directed and experiential learning components of the didactic program, to the “real-world” setting. This outcome is related...
to the program/departmental Goal 1 Students will demonstrate the knowledge, skills, and attitudes to be successful in the variety of fields encompassed within Exercise Science. This goal is related to the college goal of “Provide for an outstanding academic and professional growth experience for students at all CWU locations” and the university goal to “Maintain and strengthen an outstanding academic and student life on the Ellensburg campus”. It is also related to university goal 4 “Build mutually beneficial partnerships with the public sector, industry, professional groups, institutions, and the communities surrounding our campuses”. This goal was selected because exercise science students need to be able to apply skills learned in the classroom and the laboratory to actual settings in the work environment and we wanted to see if this was happening.

2. How were they assessed?
In answering these questions, please concisely describe the specific methods used in assessing student learning. Please also specify the population assessed, when the assessment took place, and the standard of mastery (criterion) against which you will compare your assessment results. If appropriate, please list survey or questionnaire response rate from total population.

A) What methods were used?
B) Who was assessed?
C) When was it assessed?

1. The student learning outcome “Students will demonstrate knowledge of structural components and the interrelationships between these structural components in the human organism” was evaluated via EXSC 250 (Sp,F,W), EXSC 348 (F,W), and EXSC 351 (Sp,F,W). Students in these courses are primarily juniors but some seniors were enrolled in some of these courses as well. EXSC 250 (187 students for this period) evaluated this goal by written exams to demonstrate knowledge of anatomy and movement. This outcome was also evaluated by laboratory performance where students study structure via cadaver and plastic models. EXSC 348 (81 students) evaluated the goal via written examination concerning injury treatment and prevention. EXSC 351 (166 students) evaluated the goal via knowledge of cadavers and other models. Mastery for this outcome was considered a grade of “C” or better for the components.

2. The student learning outcome “Students will be able to describe the impact of personal behaviors - lifestyle decisions (e.g.) physical activity and energy balance on human structural and functional integrity” was assessed via EXSC 318 (F,Sp, Su), EXSC 360 (F,Sp,Su), EXSC 450 (W,Su), EXSC 455 (F,Sp), and EXSC 456 (W,Su). Students in EXSC 318 and EXSC 360 are primarily juniors while those in EXSC 450, 455, and 456 are primarily seniors. EXSC 318 (50 students) evaluated impact of lifestyle decisions by written examination as well as a practical examination. EXSC 360 (56) evaluated the impact of strength training on human function and structure with written examinations as well as a Strength Assessment and Prescription Project. This project generated, assessed and evaluated data collected on a student partner for the quarter. EXSC 450 (64 students) evaluated the effects of physical activity on human function and integrity with written examinations and laboratory procedures. The laboratory procedures
required collection of data, written reports detailing and describing data collected from human subjects. EXSC 455 (61 students) evaluated physiological function parameters with written examinations as well as a practical exam. The practical exam mimics a professional certification examination where students perform physiological testing (VO2max, body fat, flexibility, muscular endurance) on others. EXSC 456 (38 students) evaluates exercise programs for diseased population (cardiovascular, respiratory, metabolic disease). It accomplishes this through written examination and case studies analysis. The case studies are provided weekly for the students concerning a variety of diseases and disorders. The students analyze the case study and provide an exercise prescription for that person. Mastery for this outcome was considered a grade of “C” or better for the components.

3. The student learning outcome “Students will be able to apply the knowledge and skills developed and honed through the many directed and experiential learning components of the didactic program, to the “real-world” setting” was evaluated by EXSC 495 (F,W,Sp) and EXSC 490 (F,W,Sp). All of these students are seniors. EXSC 495 evaluated this outcome with forty-hour practicum in a clinical (26 students) or a Fitness Laboratory (22) setting. In both situations, students applied theoretical knowledge and skills to the benefit of actual clients. EXSC 490 (56 students) evaluated this goal with a 400-hour internship conducted at an off-campus site. This quarter long internship required that the student applied theoretical skills and knowledge to the work environment. Supervisors completed evaluations of student performance for the internship. Mastery for this outcome was a grade of satisfactory and positive evaluations from internship supervisors.

3. What was learned?
In answering this question, please report results in specific qualitative or quantitative terms, with the results linked to the outcomes you assessed, and compared to the standard of mastery (criterion) you noted above. Please also include a concise interpretation or analysis of the results.

1. Students will demonstrate knowledge of structural components and the interrelationships between these structural components in the human organism

<table>
<thead>
<tr>
<th>Course Component</th>
<th>Met Expectations</th>
<th>Below Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>250 Laboratory</td>
<td>162 (86.6%)</td>
<td>25 (14.4%)</td>
</tr>
<tr>
<td>250 Examinations</td>
<td>158 (84.5%)</td>
<td>29 (15.5%)</td>
</tr>
<tr>
<td>348 Examinations</td>
<td>69 (85.1%)</td>
<td>12 (14.9%)</td>
</tr>
<tr>
<td>351 Laboratory</td>
<td>143 (86.1%)</td>
<td>23 (13.9%)</td>
</tr>
<tr>
<td>351 Examinations</td>
<td>121 (72.8%)</td>
<td>45 (27.2%)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>(653) 82.9%</strong></td>
<td><strong>(134) 17.1%</strong></td>
</tr>
</tbody>
</table>

Overall the majority of students (82.9%) met this outcome for the assessment period while only 17.1% did not. The most difficult section seems to be EXSC 351 examinations. This is a rigorous anatomy and physiology course, and a 72.8% pass rate on examinations is acceptable when the overall passing rate for the course (all components together) was 77%. The other course examination rates are high (84.5-93.8%) as are the laboratory pass rates (84.5-86.6%).
2. Students will be able to describe the impact of personal behaviors - lifestyle decisions (e.g.) physical activity and energy balance on human structural and functional integrity

<table>
<thead>
<tr>
<th>Course Component</th>
<th>Met Expectations</th>
<th>Below expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>318 Practical exam</td>
<td>47 (94%)</td>
<td>3 (6%)</td>
</tr>
<tr>
<td>318 Examinations</td>
<td>46 (92%)</td>
<td>4 (8%)</td>
</tr>
<tr>
<td>360 Practical Exam</td>
<td>56 (100%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>360 Examinations</td>
<td>54 (96%)</td>
<td>2 (4%)</td>
</tr>
<tr>
<td>450 Laboratory</td>
<td>54 (84%)</td>
<td>10 (16%)</td>
</tr>
<tr>
<td>450 Examinations</td>
<td>55 (86%)</td>
<td>9 (14%)</td>
</tr>
<tr>
<td>455 Practical Exam</td>
<td>55 (90%)</td>
<td>6 (10%)</td>
</tr>
<tr>
<td>455 Examinations</td>
<td>59 (96%)</td>
<td>2 (4%)</td>
</tr>
<tr>
<td>456 Case Studies</td>
<td>36 (95%)</td>
<td>2 (5%)</td>
</tr>
<tr>
<td>456 Examinations</td>
<td>34 (90%)</td>
<td>4 (10%)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>496 (92.1%)</strong></td>
<td><strong>42 (7.9%)</strong></td>
</tr>
</tbody>
</table>

The majority of the students (92.1%) met this outcome while 7.9% did not. Results from practical exams ranged from 90%-100% meeting expectations. Case study results (95%) were also high. Examination results ranged from 86%-96% meeting expectations. These rates of meeting expectations for written and practical examinations are acceptable.

5. Students will be able to apply the knowledge and skills developed and honed through the many directed and experiential learning components of the didactic program, to the “real-world” setting

<table>
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<tr>
<th>Course Component</th>
<th>Met Expectations</th>
<th>Below expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>495 Practicum</td>
<td>48 (97.9%)</td>
<td>1 (2.1%)</td>
</tr>
<tr>
<td>490 Internship</td>
<td>56 (100%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>104 (99%)</strong></td>
<td><strong>1 (1%)</strong></td>
</tr>
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</table>

Supervisor evaluations of EXSC 490 student performance (values of 5)

Academic preparation: 4.41 (88%)
Quality of work performed: 4.66 (93%)
Demonstration of attitude, dependability, creativity, initiative, judgment, and interpersonal skills: 4.51 (90%)
Overall evaluation of student quality and preparedness: 4.5 (90%)

Student evaluations of EXSC 490 (values of 5)

Relevance of experiences: 4.7 (94%)
Expected vs. Actual tasks: 4.51 (90%)
Development of human relations, creativity, critical thinking and problem solving: 4.53 (90%)
99% of students met this outcome. Supervisor evaluations of students were positive (88-93%). Student evaluations of their experience were also positive (90-96%). This outcome was clearly met by practicum and internship experiences.

4. What will the department or program do as a result of that information?
In answering this question, please note specific changes to your program as they affect student learning, and as they are related to results from the assessment process. If no changes are planned, please describe why no changes are needed. In addition, how will the department report the results and changes to internal and external constituents (e.g., advisory groups, newsletters, forums, etc.).

All student learning outcomes were met during this assessment period. The percentage of students meeting expectations ranged from 84-99%. This is an acceptable rating for a rigorous academic program with an applied aspect. The assessment process is new to the Exercise Science program. This is the third time program assessment has occurred. The first assessment was influenced by lack of data collection and the use of overall grades as an indication of mastery. The current assessment broke down courses into individual components and the data collection was more complete. This assessment process will evolve based on feedback from the evaluators.

5. What did the department or program do in response to last year’s assessment information?
In answering this question, please describe any changes that have been made to improve student learning based on previous assessment results. Please also discuss any changes you have made to your assessment plan or assessment methods.

Perhaps data should be assessed over the years. Maybe we should develop a table or a figure that looks at assessment data over the span of the years assessed. If we are looking to see change, it would appear in a data set like that rather than information on a single year (cross sectional vs. longitudinal). Any suggestions provided by evaluators will certainly be considered.

6. Questions or suggestions concerning Assessment of Student Learning at Central Washington University: