

May 20, 2014

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Dear Dr. Weizer,

Thank you for inviting me to be an external observer during your Exercise and Sports Science Department self-evaluation and review. It was nice meeting you and discussing the evolution and development of the Exercise and Sports Science program. I had an opportunity to read and review all of the component parts of the self-review document which you sent me. Thank you for making that available to me.

I visited the faculty on Friday May 9th and toured the campus and Exercise and Sports Science facilities and classrooms. At the end of the day, I had a chance to meet with three students who majored in Exercise and Sports Science. We had an open forum type of meeting and the questions I asked them and their answers will appear at the end of this document in the "Appendix A" Section. I also reviewed the responses from your faculty during the last external review which was conducted in 2004. Before my campus visit, I had a number of lengthy and very productive telephone calls with Dr. Jeff Godin, PhD, your department chairman. These calls were extremely helpful and prepared me well for my visit. Dr. Godin was extremely forthcoming with all information which I requested and was able to answer each of my questions with full and in-depth details. This made my visit very productive and efficient. The faculty in the Exercise and Sports Science Department engage in scholarly and teaching activities which seem to directly support the University Mission and the department's stated objectives. Department objectives are consistent with other institutions that have earned or are pursuing accreditation from the Commission on the Accreditation of Allied Health Education Programs (CAAHEP). Faculty and staff should be commended for their outstanding efforts to provide students with the didactic and practical knowledge and skills necessary to enter the job market as health and fitness

professionals or to pursue additional graduate studies in the allied health professions. It is apparent that the Exercise and Sports Science faculty developed proactive strategies to address the recommendations stated by evaluations conducted during the 2004 self-evaluation process. In addition, they appear to have a strong vantage point in which to develop programs reflecting current and future professional and marketplace trends. Course objectives and content reflect what are considered industrywide "best practices".

I have enclosed a summary report of my visit, observations and interviews with faculty, staff and students. The summary report contains statements from the "Exercise and Sports Science Department" self-study, objectives, strengths, weakness, student interviews, resources, and plans for change. Each section contains my impressions and observations. The report culminates with general recommendations for future consideration as well as an Appendix containing student comments and a list of pertinent and relevant professional certifying organizations.

In summary, the Exercise and Sports Science Faculty and Department appears to be meeting and surpassing their goals of providing exceptional educational tools to students endeavoring to become health and fitness professionals.

Please feel free to contact me with additional questions. Thank you for inviting me to participate in this very important process.

Sincerely,



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Table of Contents

<i>Mission of the Exercise and Sports Science Department</i>	<i>Pages 1.</i>
<i>Program Objectives</i>	<i>Page 1-3.</i>
<i>Samples of Student Work</i>	<i>Page 4.</i>
<i>Curriculum Trends</i>	<i>Pages 5-6.</i>
<i>Resources</i>	<i>Page 7.</i>
<i>Exercise and Sports Science Program Strengths</i>	<i>Page 8.</i>
<i>Exercise and Sports Science Program Weaknesses</i>	<i>Page 9.</i>
<i>Plans For Change</i>	<i>Page s 10-12.</i>
<i>General Recommendations</i>	<i>Pages 13-14.</i>
<i>APPENDIX A. Student Comments</i>	<i>Pages 15-17.</i>
<i>APPENDIX B. Professional Organizations and Certification</i>	<i>Page 17.</i>

Mission of the Exercise and Sport Science Department

The Exercise and Sports Science Department's mission is to offer a high-quality, student-centered, academically rigorous education in the major of Exercise and Sports Science, to support collaborative majors with other departments, and to continue to offer quality courses fulfilling the liberal arts and sciences requirement as well as providing opportunity for enjoyable structured activities to students across campus, fostering healthy and physically active lifestyles.

IMPRESSION(S):

- The Exercise and Sports Science Department does offer a high- quality, student centered academically rigorous education to its students
- The Exercise Science Department is in a unique position of providing a choice of two comprehensive three-credit courses to fulfill a mandatory arts and sciences requirement for all non-exercise science students/majors at Fitchburg State University

Exercise and Sport Science Program Objectives

To provide relevant professional education supported by a rigorous scientific base to students who choose Exercise and Sport Science careers, either in the clinical or the fitness setting.

IMPRESSION(S):

- The course offerings and content of this curricula are consistent with those determined to prepare students for careers in both clinical and fitness settings
- General alignment of course objectives to requisite Knowledge and Skills (KSs) and blueprints of industry leading certification credentials will reinforce and support this goal Objective.

To provide leadership opportunities through apprenticeships, specified internships, and presentations and publications.

IMPRESSION(S):

Students have a broad variety of internship opportunities in both fitness and clinical settings and can develop marketable skills. In addition, apprenticeship opportunities also exist for students to further interface with professionals and refine/develop practical skills.

To provide career alternatives to students in other majors by offering courses related to their chosen fields of endeavor.

IMPRESSION(S):

- This observer/reviewer did not sense that large numbers of non-majors were transferring into exercise science as a result of taking courses offered by the Exercise and Sports Science Faculty

To support the college's liberal arts requirement in the area of health and fitness.

IMPRESSION(S):

- The Exercise Science Department is in a unique position of providing a choice of two comprehensive three-credit courses to fulfill a mandatory arts and sciences requirement for all non-exercise science students/majors at Fitchburg State University
- The Exercise Science Department is in a unique position of providing a choice of two comprehensive three-credit courses to fulfill a mandatory arts and sciences requirement for all non-exercise science students/majors at Fitchburg State University
- The Exercise and sports Science Faculty covers 14 or more sections of Health and Wellness courses for all "non-Exercise and Sports Science majors" which consumes a considerable amount of time. Although a number of faculty have stated that they enjoy this, it is apparent that they could be using this time and related efforts in other ways (new course development/teaching, research, mentoring and advising).

The Exercise and Sports Science Department has stated that, “graduates from this major will have the will have both the knowledge base and practical skills needed to become competent practitioners, and/or to further their education in a graduate program”.

IMPRESSION(S):

- It appears that the faculty previously attempted to include courses within the curriculum to match the knowledge and skills required to pass leading fitness industry certification examinations.
- Faculty removed two “psychology” courses, a “metabolism” course and a list of approximately 26, one-credit activity-based courses. This has enabled them in turn to expand the physiology of exercise course into part I and Part II courses. This appears to have enabled faculty to address exercise physiology in a significantly deeper and more detailed manner.
- The clinical exercise physiology and fitness management tracks seem to be comprehensive, well-structured and organized.
- Course offerings seem to address the key knowledge and skills necessary to work as an exercise specialist in fitness and clinically-oriented programs.
- Students can take additional exercise science elective courses to broaden their knowledge base and expand their skills.
- Clinical Exercise Physiology track students seem to outnumber fitness management students by more than a 4:1 ratio.
- Fitness management students earn a minor in business.
- Previous evaluators have recommended that the name of this track concentration be changed to reflect the breadth of knowledge acquired. This evaluator addressed this issue with the faculty as well. The faculty investigated this issue at internship sites. Internship mentors have emphasized the importance of students developing business management skills.

SAMPLES OF STUDENT WORK

IMPRESSION(S):

- The individual student portfolio development requirement provides students with opportunities to promote their academic and pre-professional accomplishments in a manner consistent with both the professional job and graduate school application processes. Sample documents within the departmental self-study provide a good example of how thoroughly students are prepared for exercise science careers and advanced professional/graduate studies. (Example Student Assignments include: 1. A Blood Pressure Lab, 2. "Periodized", Resistance Training Program Assignment from a "Strength and Conditioning" Course, 3. A Sample Literature Review from a "Nutrition and Exercise" course and 4. A very comprehensive, "Internship Portfolio".
- Each of the samples above demonstrates the efficient manner in which the Exercise and Sports Science Department measures student learning outcomes in an objective manner. Trends observed from collection of portfolios drives future program goals, objectives, initiatives and strategies. In this evaluator's opinion, Fitchburg State University's multiple step procedure (mentioned above) is consistent with trends in external exercise science education program accreditation standards which are typically considered to be "best practice (s)".

CURRICULUM TRENDS

IMPRESSION(S):

- The Exercise and Sports Science Department assessment of professional employment and curriculum trends seems consistent with the current marketplace trends.
- Professional certifications from the American College of Sports Medicine (ACSM), the Exercise Is Medicine initiative and “Wellcoaches” (health coaching) are identified as important credentials and potential outcomes for students. Other credentials which this observer feels warrant mentioning in regards to a program like this (Fitchburg State) include the ACSM specialty certifications (“Inclusive Fitness Trainer”, “Cancer Fitness Trainer”, “Public Health Exercise Specialist” and the National Strength and Conditioning Association (NSCA) “Certified Strength and Conditioning Specialist” (CSCS).
- Discussion ensued during this recent site visit regarding the potential for offering specialty concentrations/minors within the Exercise and Sports Science Department for students. Students seem to have the flexibility to use a number of “free electives” to do so.
- Potential concentrations include ***strength and conditioning, health promotion and perhaps geriatric health and wellness.***

OUTCOMES ASSESSMENT PLAN

IMPRESSION(S):

- The outcomes assessment plan outlined in the department self-study appears thorough and multifaceted. In addition to a regularly meeting “curriculum committee”, and “student feedback” (written and verbal), the faculty have identified a list of fifteen (15) “programmatic learning objectives” for the Exercise and Sports Science Program/Curriculum.

- Specific goals from within this list (generally 2 -3 at a time) have been identified as warranting prioritized assessment. *Department member rationale for selecting specific objectives for assessment is based on student performances in classes on projects and from internship mentor feedback.
- Artifacts selected from specific courses and displayed in the self-study seem representative of critical knowledge and skills required in most academic programs and by employers and internship mentors.
- It is apparent that the faculty have reviewed previous comments from internship mentors regarding student performance on critical skills, decision making and behaviors as well as previous knowledge, skill and ability statements from exercise science professional organizations that develop and offer certification examinations.
- It appears to this observer that the faculty have been collecting enough data from student graduate survey to start evaluating objectives number 14 and 15 (***Admission into Graduate Programs and Passing National Certification Examinations***) ***This observer suggests that faculty consider adding these objectives to the next goal/objective review!!!***
- The results from previous three-point system artifact assessments seem to have already directed new curricular and administrative strategies. Results have guided the purchase of new Laboratory and classroom equipment (Stethoscopes , etc.) and the development of new assignments like presentations and literature reviews. *Faculty has been proactive by developing of objectives, assessments and implementation of corrective and developmental strategies.
- The curriculum mapping system used for the Exercise and Sports Science department at Fitchburg State University appears to address all essential knowledge, skills and artifacts in each course and does provide for evaluation/observation of progressive mastery of said knowledge and skills over the course of a student's tenure.

RESOURCES

IMPRESSION(S):

- Faculty seem satisfied with amounts of professional development and continuing scholarship funds available for conference attendance, travel and other continuing education activities.
- Classroom equipment (including Audiovisual Platform) and Laboratory equipment seem appropriate for the content delivered in lecture and lab sessions and class sizes.
- Future growth may warrant purchase of additional equipment and acquisition of larger rooms and facilities.
- The recreation and fitness centers are equipped with appropriate equipment but their size is not conducive to providing a more practical approach to teaching courses warranting exercise technique instruction (strength and conditioning class lab sessions as an example).
- The library provides a large volume of books, journals and periodicals deemed essential to the undergraduate study of exercise physiology. The list of databases and “search-engines” is large and the library has the ability to access additional references for students in a timely manner.
- Support services and classes are available to familiarize students with library services which can facilitate their abilities to locate appropriate information from numerous sources and to ultimately complete “research” assignments and participate in learning activities.
- Most contemporary titles seem to be available.
- Although instituting a lab component to the EX-3120 “Strength and Conditioning” and providing more exercise instruction lab sessions to EX-3450 “Exercise Testing & Prescription” are both warranted (in this observer’s opinion), the current facility size, equipment amounts and utilization patterns render these priorities challenging if not impossible at this time.

DEPARTMENT STRENGTHS

IMPRESSION(S):

- Students have two strong academic tracks of study to choose from with room to take elective courses (from within the department or from other departments).
- This leeway can facilitate the development of future academic “specializations”, “concentrations” and “minors”.
- The faculty support the university’s mission, goals and objectives by contributing in a number of ways to university-wide initiatives, projects and courses.
- The department has experienced steady growth since the inception of the two majors and accepts approximately 50 new majors per year.
- The Faculty engages in scholarship and leadership in domains which address their specific areas of expertise.
- Students have opportunities to participate in additional, guided research activities with faculty members of their choice during “Apprenticeships”.
- Feedback from students during student interviews (between this observer and a group of three Fitchburg State University Senior students) was extremely positive. The students expressed satisfaction with their education and the new knowledge and skills they have acquired. *Page 8.*

WEAKNESS AND AREAS FOR POTENTIAL GROWTH:

IMPRESSION(S):

- Although department staffing has grown to nine (9) full time faculty, it appears that the student: faculty ratio has continued to grow steadily.
- Faculty expressed an interest in acquiring a third member with a strong background in Biomechanics and Motor Control. This would be beneficial if the department continues to meet student's interests in the strength and conditioning and rehabilitation fields.
- Recreational and training facilities are not large enough or well enough equipped to meet the demands of more strength and conditioning oriented classes or for more "On-campus" experiential activities!!!
- Faculty identified the lack of more "on-campus" opportunities for "hands-on" learning as an area for future growth. The major challenge (in this observer's opinion) will be lack of adequate facility space, equipment and scheduling availability!!!
- Faculty stated that assigning students to work with specific athletic teams (as an "on-site" "practical learning" experience/opportunity) as not being feasible because of the "culture" within the athletic department and the lack of facilities (space, equipment and scheduling/availability).

PLANS FOR CHANGE

IMPRESSION(S):

- The Exercise and Sports Science Department faculty seem to be very proactive and have proposed a number of strategies to optimize the function of the program.
- Consideration of concentrations or majors for students wishing to pursue degrees in the allied health professions (physical therapy, occupational therapy, athletic training) as well as additional knowledge and skills to become strength and conditioning professionals has also been discussed.

This external reviewer suggests the department consider pursuing "EDUCATION RECOGNITION PROGRAM" (ERP) accreditation from the National Strength and Conditioning Association (NSCA).

<http://www.nasca.com/Education/Programs/Education-Recognition-Program/> there is a \$500 fee and the accreditation is valid for three (3) years. Fitchburg State University's program would be profiled by the NSCAS and prospective students would have an opportunity to learn more about the Exercise and Sports Science Program and how it could help with their career objectives (as future strength and conditioning professionals.

Application Link

http://www.nasca.com/uploadedFiles/NSCA/Resources/PDF/Education/ERP-Application_SC-Program-201404_R.pdf

- The Entrance into the major requirements is appropriate. An increase in GPA requirements might (at one point) warrant revisiting if the program experiences unprecedented growth in the future.
- The addition of a second part of the exercise physiology course, and the addition of a research project and opportunity to present at the university student research conference are warranted changes.

- The addition of a research methods course as stated by the faculty also seems warranted. Page 10.
- The faculty's interest in combining Biomechanics and Motor Learning and Control would make sense in the interest of preparing students for future studies in allied health preparatory programs.
- ***Adding a laboratory component to the Functional Anatomy class (and making it a 4 credit course) is also warranted (both for students interested in pursuing careers in the allied health and strength and conditioning professions. (This observer realizes that again space and time will dictate whether this is feasible or not).***
- ***Making the Strength and Conditioning course a 4-credit course (with a LAB) is an essential step to adding a Strength and Conditioning "concentration" and providing students with expanded learning opportunities. (Again, this observer realizes that the facilities, space and equipment might be major limitations to this happening as it should)!!!***
- ***Adding "Apprenticeships" into existing courses like Strength and Conditioning", "Testing and Prescription" and others will better prepare students for passing national certification examinations (like the ACSM and NSCA, etc.).***
- Opportunities to collaborate with local healthcare and fitness organizations on the Fitchburg State University campus are significantly limited and will, eventually limit the department's ability to offer students more "clinically-relevant" experiences!!!
- ***An addition of "Pre-allied Health track" (PT, OT, etc.) would be beneficial however a separate major stems to reduce enrollment in the Exercise and Sports Science Major. The specialty track will enable the department to promote exercise science and provide students with additional information and skills necessary for them to continue professional study.***

- Consulting the current “Scope of Practice” and knowledge and skills of the American College of Sports Medicine (ACSM) Health Fitness Specialist (HFS) would help the faculty further develop specific learning objectives for the curriculum, syllabi and for national certification examination preparation. (ACSM Get Certified Site <http://certification.acsm.org/acsm-certified-health-fitness-specialist> and specific Certification Domains, Knowledge and Skills can be accessed here. <http://certification.acsm.org/files/file/JTA%20HFS%20FINAL%202012.pdf>
- Students indicated that they would like to exit the Exercise and Sports Science program with a national certification. One suggestion is to have them sit for the ACSM Personal Trainer’s certification after they have taken their first few classes so they have a certification when working at their internships.

GENERAL RECOMMENDATIONS

- Consider pursuing/attaining Education Recognition Program (ERP) accreditation from the National Strength and Conditioning Association (NSCA- ERP) (See Appendix)
- Consider following the American College of Sports Medicine (ACSM) Certification Domains and inserting the supporting Knowledge and Skills (KS's) from the Health Fitness Specialist (ACSM-HFS) certification examination into curriculum maps, syllabi and learning objectives (Health and Fitness Assessment, Exercise Prescription, Implementation (and Ongoing Support), Exercise Counseling and Behavioral Service, Legal/Professional, Management) (See Appendix)
- Consider Promoting ACSM Specialty Certifications (Exercise Is Medicine, Cancer Trainer, etc.) (See Appendix)
- Consider adding a Strength and Conditioning Concentration/Track
- Consider adding a course in "Exercise and Aging" and perhaps a Geriatric Health and Wellness Concentration/Track. This is a good avenue for pre-allied health students to develop relevant knowledge and skills. Consider collaborating with other departments like Biology, Psychology and Nursing.
- Consider adding a Pre-Allied Health Concentration/Track
- Consider adding a Lab to Functional Anatomy and Make it a 4-credit course
- Consider adding a Lab to Strength and Conditioning and make it a 4-credit course (explore temporarily renting space elsewhere at another community site.
- Consider adding a course in basic pharmacology and exercise or collaborate with other departments (Pre-Allied Health concentration)

- Obtain Information from the National Strength and Conditioning Association (NSCA) regarding upcoming changes they will be making to the Certified Strength and Conditioning Specialist (CSCS) certification examination. (See Appendix B) *Page 13.*
- Consider using adjuncts and part-time staff to teach university wide health and wellness courses in situations where full-time faculty would like to teach other classes, develop new courses or conduct other scholarly or teaching activities.
- Consider making the Journal of Clinical Exercise Physiology (Clinical Exercise Physiology Association's official publication) available to students.
- Consider having students take the ACSM Certified Personal Trainer examination as part of the preparation for participating in the internship program. This might enable students to earn money while they study.

APPENDIX A:

STUDENT FEEDBACK

IMPRESSION(S):

This observer asked Fitchburg State University Exercise and Sports Science Senior students a number of questions during a small group discussion session. This section is a sample of the questions and the student responses:

Question.1. Has this program met your expectations?

Question.2. How did you and why did you choose this program/major?

Question.3. Have you developed unique skills during your studies at FSU?

Question.4. Do you feel prepared to work in the field?

Question.5. What are the program's strengths?

Question.6. What other things would you have like to see at FSU?

Question.7. Would you like to add any other comments?

STUDENT ANSWERS TO QUESTIONS

Question 1. All three students stated adamantly that the exercise and sports science program has met and "surpassed" their expectations. Other comments included,

- "The program has exceeded my expectations".
- "The instructors make this worthwhile".
- "We look forward to coming to class".
- "The instructor's backgrounds are different and this makes things interesting".

- “Classes relate well and connect to one another and reinforce what we learn”.

Page 15.

Question 2. “I was originally a Special Education major at another school but wanted to work in healthcare. I received my CAN certificate prior to coming to FSU”.

“I realized that I did not want to be a Nurse but did not previously know anything about Exercise Science”. I want to be an Occupational Therapist”.

“I came to FSU for Nursing and changed to an “undecided” major. I did not like that either. I met some students who were Exercise Science majors and they were so positive about it. I took “Introduction to Exercise and Sports Science”. I learned about various healthcare professions and want to help people. I want to pursue a Doctorate of Physical therapy”.

Question 3. Students were forthcoming with a number of unique skills and abilities they felt would enable them to function effectively as an exercise professional. Skills included:

- “Performing exercise prescriptions for a variety of people”.
- “Taking blood pressures”.
- “Teaching proper strength training techniques”.
- “Properly spotting people when they exercise”.
- “Conveying passion for exercise science to the general public when we work with them”.
- “Promoting various forms of physical activity”.
- “Giving polished presentations with confidence”.
- “How to put a portfolio together”.
- “How to write a good resume”.

Question 4. Students all stated feeling prepared to work in the field.

Question 5. Students felt that knowledgeable, helpful and caring staff and the internships were the biggest strengths of the program.

Page 16.

Question 6. Students said that they felt a minor or concentration in “Strength and Conditioning” would be beneficial. They said that a “Health Sciences” major might be good but could be too general and might limit them if they decided to do something else.

Question 7. All three students said, “I would like to have a certification before I graduate that I could use when I apply for jobs and during the internship and I think that I could pass it”

“I would like to see a graduate degree program in either “Exercise Science” or Exercise Science combined with Public Health”.

“I would like to see a Physical Therapy and an Occupational Therapy program here. It is such a family here and I would like to stay here”.

APPENDIX B:

Professional Organizations and Certifications

- ACSM Get Certified Site Link <http://certification.acsm.org/get-certified>
- Link to ACSM Clinical Exercise Specialist Certification Information <http://certification.acsm.org/acsm-certified-clinical-exercise-specialist> and to the Domains and Knowledge and Skills (KS's) <http://certification.acsm.org/files/file/JTA%20CES%20FINAL%202012.pdf>
- Information on ACSM Specialty Certifications (Exercise is Medicine (EIM), Public Health, Inclusive Fitness Trainer, Cancer Exercise Trainer) (<http://certification.acsm.org/specialty-certifications>)
- National Strength and Conditioning Association (NSCA) Education Recognition Program (ERP) <http://www.nsca.com/Education/Programs/Education-Recognition-Program/>

- ***National Strength and Conditioning Association Certification Site***
<http://www.nsca.com/certification/>