

WSU Five-Year Program Review
Self-Study

Cover Page

Department/Program: Exercise and Nutrition Sciences, Exercise and Sport Science Program

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Brief Introductory Statement

(Should align with or compliment the Annual Strategic Planning Report)

The Exercise and Sport Science (ESS) major is an interdisciplinary program of studies that was established as a stand-alone major program under the Department of Health Promotion & Human Performance (HHP) in the Jerry and Vickie Moyes College of Education in the 2016 – 2017 academic year. Starting in the 2019 – 2020 academic year, ESS became one of two major programs under the Department of Exercise and Nutrition Sciences (ENS). The current program review includes data for 4 academic years; from 2018 – 2019 through 2021 – 2022 academic years, since our last program review included through the 2018 – 19 academic year.

The ESS major includes two distinct emphases: Fitness Professional emphasis and Exercise Science emphasis, which share a set of required common core courses. The Fitness Professional emphasis integrates health and fitness testing and assessments and exercise prescription, scientific examinations of the effects of exercise and nutrition on the human body within the ENS Department as well as health promotion, physical education, fitness training, and CPR and first aid in Health, Physical Education & Recreation and Athletic Training Departments in preparing undergraduate students to assess needs and develop, implement, and manage fitness, health, nutrition, and sport programs for diverse populations. Students who complete this track likely will seek health and fitness-related careers in a variety of public and private settings. The Exercise Science emphasis of the ESS major integrates coursework from departments beyond the College of Education. This emphasis serves students by providing an excellent foundation of education to prepare them for graduate school programs as well as professional employment opportunities while providing important knowledge, skills, and abilities for living healthily. The program strives to prepare its students to become effective exercise science practitioners and researchers by providing a curriculum aligned with the professional competencies for exercise science professions identified by the American College of Sports Medicine (ACSM), the most comprehensive and reputable exercise science/sports medicine organization that leads the exercise science professions internationally.

Standard A - Mission Statement

The ENS department mission statement found online (<https://weber.edu/ens/about.html>):

The Department of Exercise and Nutrition Sciences (ENS) supports and enhances the mission of the University through learning, access, and community partnerships in exercise and nutrition sciences. We provide effective instruction, exploratory research, and engaged service to prepare exercise, fitness, and nutrition professionals for the workforce and graduate studies and to promote optimal health, human performance, and overall well-being.

The Exercise and Sport Science Program mission statement:

The mission of the Exercise and Sport Science Program is to prepare students with the knowledge, skills, and abilities to enhance human lives through physical activity.

Summary:

The Exercise and Sport Science major is a flexible and interdisciplinary program of studies within the Department of Exercise and Nutrition Sciences (ENS) in the Jerry and Vickie Moyes College of Education. The program integrates every discipline within the Department in preparing undergraduate students to develop, implement, and manage fitness, nutrition, leisure, and sports programs for diverse populations. We strive to inspire students to pursue the goals of providing activities that improve health-related quality of life and optimize the well-being of targeted populations. The changing landscape of health and health care in the 21st century will necessitate a new paradigm requiring Americans to seek knowledgeable professionals to empower them to actively improve their own health. The demand for well-trained individuals in the recreation, sport, and wellness industries continues to create employment opportunities for management careers in college and professional organizations, corporate wellness programs, fitness and sport clubs, resort and tourism agencies, a variety of municipal and outdoor service programs, sporting goods industry, and sport information outlets. In addition, fitness professionals and human performance managers offer expertise about translating the benefits of physical activity, nutrition, and recreational pursuits into effective policy solutions for both government and private sector. The ESS educational program provides students with knowledge and develops administrative skills in human performance, resource management, measurement and evaluation, as well as specific vocational preparation in fitness, nutrition, leisure, and sports careers.

Standard B - Curriculum

The Exercise and Sport Science (ESS) degree is designed with students' career and academic goals in mind, with courses offered reflecting breadth and variety between and within areas of program emphases. The Department of Exercise and Nutrition Sciences (ENS) offers a BS degree in ESS who may select either a Fitness Professional (FP) emphasis or an Exercise Science (ES) emphasis. Courses within the ESS major may also comprise a Nutrition minor or an Exercise Science Bachelor of Integrated Studies (BIS) emphasis. Required general education course for the ESS major within the ENS department includes Science and Application of Human Nutrition (NUTR 1020 LS SUS). The ESS curriculum includes 63 credit hours, arranged with 25 hours of core courses and one of two areas of emphasis with 38 credit hours. Each of the areas of emphasis has 14 (FP) or 15 (ES) hours of required support courses that may be counted toward university general education requirements. A major strength of the ESS curriculum is the numerous internship opportunities accorded ESS majors where Cooperative Work or Field Experience credit may be earned as well as financial compensation. Additionally, engaging in research projects under the guidance of the program faculty provides our students an opportunity to obtain more comprehensive knowledge in exercise science as well as to make them competitive in their graduate school applications. The increasingly diverse nature of the exercise science discipline, represented by recent changes in competencies required for fitness and clinical certifications offered by the American College of Sports Medicine (ACSM) and newly established criteria by the Council on Accreditation of Strength and Conditioning Education (CASCE) have made the needs for more various course offering in the ESS program evident. The ACSM and CASCE identify that knowledge, skills, and abilities in exercise prescription, including pre-participation screening/assessments of clients, interpretation of assessment results, development of exercise program and counseling for functional capacity improvement, as the area of the highest emphasis. The current ESS curriculum is limited in advanced-level health and fitness screening/assessments and exercise programming, counseling and prescription. A course addressing risk management and fitness administration specifically tailored to exercise and fitness professionals will benefit the students that the ESS program serves while addressing another important competency identified by the ACSM and CASCE. During the early part of this program review period, the ESS program struggled to meet the students demands, specifically, offering enough seats for the required courses to allow them to graduate in a timely manner. We also identified that there was a gap between the industry standards/expectations and the skills and knowledge that our students graduated with, particularly in the area of cardiac rehabilitation. Recent addition of full-time program faculty members and addition of hybrid and fully online sections of bottleneck courses allowed us to meet most of the enrollment-related demands in the past few academic years. We are planning for curriculum updates in the upcoming academic year (2023 – 2024) to establish a mechanism to better prepare our students for post-academic, professional careers.

Curriculum Map

Major Course Requirements for BS Degree in ESS

Required Core Courses (25 credit hours, 16 upper division)

- RHS 2300 - Emergency Response Credits: (3)
- ESS 2200 - Exploring Exercise Science Professions Credits: (3)
- ESS 2300 - Health/Fitness Evaluation and Exercise Prescription Credits: (3)

- ESS 3450 - Structural Kinesiology Credits: (3)
- ESS 3500 - Biomechanics Credits: (3)
- ESS 3510 - Exercise Physiology Credits: (3)
- ESS 3600 - Measurement and Statistics in Exercise Science Credits: (3)
- ESS 4370 - Clinical Exercise Physiology Credits: (3)
- ESS 4990 - Senior Seminar Credits: (1)

Professional Areas of Emphasis: A student must complete the required and support courses in either the *Fitness Professional* or the *Exercise Science* Emphasis.

Fitness Professional Emphasis (38 credit hours, 20 upper division possible)

Required Core (22 credit hours)

- HLTH 3000 - Foundations of Health Promotion Credits: (3)
- HLTH 3200 - Methods in Health Education Credits: (3)
- NUTR 2320 - Food Values, Diet Design and Health Credits: (3)
- NUTR 3020 - Sports Nutrition Credits: (3) **OR** NUTR 4420 - Nutrition and Fitness Credits: (3)
- PEP 3280 - Methods of Teaching Strength and Conditioning Credits: (3)
- ESS 2890 INT - Cooperative Work Experience Credits: (1-6) **AND/OR** ESS 4890 INT - Cooperative Work Experience Credits: (1-6) - Total of 5 credit hours required
- ESS 4320 - Special Topics Credits: (3)
- ESS 4800 - Directed Undergraduate Exercise Science Research Credits: (1-4)
- ESS 4830 - Directed Readings in Exercise Science Credits: (1-3)
- PS 3203 - Customer Service Techniques Credits: (3) **OR** PS 3563 - Principles of Sales Supervision Credits: (3)

Skill Development (select 2) (2 credit hours total, 0 upper division)

- PE 1010 - Aerobics, Level I Credits: (1)
- PE 1040 - Walking for Fitness, Level I Credits: (1)
- PE 1043 - Jogging, Level I Credits: (1)
- PE 1070 - Cross Training For Fitness, Level I Credits: (1)
- PE 1080 - Strength Training, Level I Credits: (1)
- PE 1300 - Swimming, Level I Credits: (1)

Required Support Courses (14 credit hours, 0 upper division)

- HTHS 1110 LS - Integrated Human Anatomy and Physiology I Credits: (4)
- HTHS 1111 - Integrated Human Anatomy and Physiology II Credits: (4)
- NUTR 1020 LS SUS - Science and Application of Human Nutrition Credits: (3)
- CHEM 1010 PS - Introductory Chemistry Credits: (3)

Exercise Science Emphasis (38 credits)

Required Electives (Choose 23 credits from College and Professional Development College (ENS and HPER)

- NUTR 2320 - Food Values, Diet Design and Health Credits: (3)
- NUTR 3020 - Sports Nutrition Credits: (3) or
- NUTR 4420 - Nutrition and Fitness Credits: (3)
- NUTR 4320 - Current Issues in Nutrition Credits: (2)
- PEP 3100 - Principles of Motor Learning and Motor Development Credits: (3)
- PEP 3280 - Methods of Teaching Strength and Conditioning Credits: (3)

- PEP 3400 - Sport Psychology for Coaches Credits: (3)
- PEP 4800 - Individual Projects Credits: (1-4)
- ESS 2890 INT - Cooperative Work Experience Credits: (1-6)
- ESS 4320 - Special Topics Credits: (3)
- ESS 4800 - Directed Undergraduate Exercise Science Research Credits: (1-4)
- ESS 4830 - Directed Readings in Exercise Science Credits: (1-3)
- ESS 4890 INT - Cooperative Work Experience Credits: (1-6)

Professional Development (3-12 credits)

- CHEM 1110 PS - Elementary Chemistry Credits: (4) and
- CHEM 1115 - Elementary Chemistry Lab Credits: (1)
- CHEM 1120 - Elementary Organic Bio-Chemistry Credits: (4) and
- CHEM 1125 - Elementary Organic Bio-Chemistry Lab Credits: (1)
- CHEM 1210 PS - Principles of Chemistry I Credits: (4) and
- CHEM 1215 - Principles of Chemistry I Lab Credits: (1)
- CHEM 1220 - Principles of Chemistry II Credits: (4) and
- CHEM 1225 - Principles of Chemistry II Lab Credits: (1)
- CHEM 2310 - Organic Chemistry I Credits: (4) and
- CHEM 2315 - Organic Chemistry I Lab Credits: (1)
- MICR 2054 LS - Principles of Microbiology Credits: (4)
- MICR 3203 - The Immune System in Health & Disease Credits: (3)
- PHYS 2010 PS - College Physics I Credits: (5)
- PHYS 2020 - College Physics II Credits: (5)
- PSY 3010 - Abnormal Psychology Credits: (3)
- ZOOL 1110 LS - Principles of Zoology Credits: (4)
- ZOOL 3200 - Cell Biology Credits: (4)
- ZOOL 3300 - Genetics Credits: (4)

Required Support Courses (15 credit hours)

- HTHS 1110 LS - Integrated Human Anatomy and Physiology I Credits: (4) **OR** ZOOL 2100 - Human Anatomy Credits: (4)
- HTHS 1111 - Integrated Human Anatomy and Physiology II Credits: (4) **OR** ZOOL 2200 LS - Human Physiology Credits: (4)
- MATH 1050 QL - College Algebra Credits: (4) or higher level math
- NUTR 1020 LS SUS - Science and Application of Human Nutrition Credits: (3)

[The curriculum grid is also available as a Google Sheet.](#)

Core Courses in Department/Program	ESS Program Learning Outcomes* [1= Minor Emphasis; 2 = Moderate Emphasis; 3 = Major Emphasis]						
	1. Foundational Core Knowledge and Skills	2. Health and Fitness Assessment	3. Exercise Prescription	4. Implement Exercise Prescriptions	5. Exercise Counseling & Behavioral Strategies	6. Legal/Professional	7. Management
ESS Major Required Core (25 credit hours)							
RHS/AT 2300 –	3		2			3	

Emergency Response							
ESS 2200 – Exploring Exercise Science Professions	1	1					
ESS 2300 – Health/Fitness Evaluation & Exercise Prescription	3	3	3	2	2	1	
ESS 3450 – Structural Kinesiology	3	1	2	1			
ESS 3500 – Biomechanics	3	1	1				
ESS 3510 – Exercise Physiology	3	2	2	1			
ESS 3600 – Measurement & Statistics in Exercise Science	3	2		1			
ESS 4370 – Clinical Exercise Physiology	3	3	3	3	2	1	
ESS 4990 – Senior Seminar	3					1	1
Fitness Professional Emphasis –Required core (22 credit hours)							
HLTH 3000 – Foundations of Health Promotions	2				2		2
HLTH 3200 – Methods in Health Education	3			3	3		
NUTR 2320 – Food Values, Diet Design and Health	3	2	2		2	1	1

NUTR 3020 – Sports Nutrition – OR -	3	2	2	1	2	1	1
NUTR 4420 – Nutrition and Fitness	3						
PEP 3280 – Methods of Teaching Strength & Conditionin g	3	3	3	2	2	2	2
ESS 2890/ESS 4890 Corporative Work Experience	3						3
ESS 4320 Special Topics	3						
ESS 4800 Directed Undergradu ate Exercise Science Research	3						
ESS 4839 Directed Readings in Exercise Science	3						
PS 3203 – Customer Service Techniques – OR -							3
PS 3563 – Principles of Sales Supervision							3
Exercise Science Emphasis – Required Electives from College (ENS and HPER) at least 11 credit hours							
NUTR 2320 – Food Values, Diet Design & Health	3						
NUTR 3020 – Sports	3	2	2		2	1	1

Nutrition – OR -							
NUTR 4420 – Nutrition and Fitness	3	2	2	1	2	1	1
NUTR 4320 – Current Issues in Nutrition	3						
PEP 3100 – Principles of Motor Learning & Motor Developmen t				1	1		
PEP 3280 – Methods of Teaching Strength & Conditionin g	3	3	3	2	2	2	2
PEP 3400 – Sport Psychology for Coaches	2				3		
PEP 4800 – Individual Projects	3						3
ESS 2890/ESS 4890 Corporative Work Experience	3						3
ESS 4320 Special Topics	3						
ESS 4800 Directed Undergradu ate Exercise Science Research	3						
ESS 4839 Directed Readings in Exercise Science	3						

1= minor emphasis, 2 = moderate emphasis, 3 = major emphasis

**ESS Program will undergo major curricular updates in the summer/fall of 2023 to align with the accreditation requirements set by Council on Accreditation of Strength and Conditioning Education (CASCE) and Committee on Accreditation for the Exercise Sciences (CoAES). With these updates, new learning outcomes as well as curriculum grid will be created.*

Standard C - Student Learning Outcomes and Assessment

A. Measurable Program Learning Outcomes

ESS Program Student Learning Outcomes*:

At the end of their study at WSU, students in this program will

1. Apply knowledge of exercise science including kinesiology, functional anatomy, exercise physiology, nutrition, program administration, psychology, and injury prevention in the health/fitness setting.
2. Perform pre-participation health screenings and fitness assessments.
3. Interpret assessment results and develop exercise prescription.
4. Incorporate suitable physical activities to improve functional capacity.
5. Apply appropriate behavioral change techniques to effectively educate and counsel lifestyle modification.
6. Create and disseminate risk management guidelines for a health/fitness facility, department or organization to reduce member, employee and business risk. OR Create an effective injury prevention program and ensure that emergency policies and procedures are in place.
7. Perform duties related to fitness management, administration, and program supervision.

**The student learning outcomes were developed in the 2017 – 2018 academic year to align the program's student learning outcomes with the major areas of professional practice (i.e., domains) and the knowledge, skills, and abilities (KSAs) identified for the fitness and clinical exercise science/physiology certifications offered by the American College of Sports Medicine (ACSM)¹*

¹ American College of Sports Medicine's Certifications at a Glance. Table D.1. in ACSM's Guidelines for Exercise Testing and Prescription, 10th ed. 2018.

Student Learning Outcome 1: Knowledge & Skills

Apply knowledge of exercise science including kinesiology, functional anatomy, exercise physiology, nutrition, program administration, psychology, and injury prevention in the health/fitness setting.

How Assessed:

- **Method A (Indirect+):** Self-evaluation in senior seminar course (ESS 4990) utilizing:
 - Measure 1: NSCA² Certified Strength & Conditioning Specialist (CSCS) Competencies; “Scientific Foundations” section
 - 80% of students score higher than 4 out of 5
 - Measure 2: ACSM/NPAS³ Physical Activity in Public Health Specialist (PAPHS) Competencies; Area 6 “Exercise Science in Public Health Setting”
 - 80% of students score higher than 4 out of 5

Method B (Direct): Standardized cognitive and skill assignments and exams related to respective content areas in ESS courses which have a major emphasis in “Foundational Core Knowledge and Skills”

Measure 3: Structural Kinesiology (ESS 3450)

- 80 % of students receive the total lab score higher than 80%

Measure 4: Biomechanics (ESS 3500)

- 80% of students successfully scores 80% or better on questions in final exam aligned with this SLO

Measure 5: Exercise Physiology (ESS 3510)

- 80% of students successfully completes the course (C or better)

Student Learning Outcome 2: Health & Fitness Assessment

Perform preparticipation health screenings and fitness assessments.

How Assessed:

- **Method A (Indirect⁺):** Self-evaluation in senior seminar course (ESS 4990) utilizing:
 - Measure 1: ACSM¹ CEP Competencies; Section I “Heath & Fitness Assessment”
 - 80% of students score higher than 4 out of 5
 - Measure 2: NSCA² CSCS Competencies; Practical- IV- Testing & Evaluation” section
 - 80% of students score higher than 4 out of 5

Method B (Direct): Standardized cognitive and skill assignments and exams related to respective content areas in ESS courses which have a major emphasis in “Preparticipation Health Screenings and Fitness Assessments”

Health/Fitness Evaluation & Exercise Prescription (ESS 2300)

- Measure 3: 80% of students score 80% or higher on Complete Fitness Assessment (or Personal Fitness Assessment during COVID restrictions) Assignment
- Measure 4: 80% of students core 80% or higher on the 17 question Health Appraisal Quiz
- Measure 5: 80% of students score 80% or higher on the Practical Skills Final Exam (Replaced with written exam following COVID restrictions)
- Measurement and Statistics in Exercise Science (ESS 3600)
 - Measure 6: 80% of students score 80% or better on Research Replication Study Project.
 - Measure 7: 80% of students score C or better in the course

Clinical Exercise Physiology (ESS 4370)

- Measure 8: 80% of students score 80% or higher on the 10 question Health Screening and Pre-Exercise Evaluation Quiz
- Measure 9: 80% of students score 80% or higher on the Individualized Exercise Program Project

Student Learning Outcome 3: Exercise Prescription

Interpret assessment results and develop exercise prescriptions.

How Assessed:

- **Method A (Indirect⁺):** Self-evaluation in senior seminar course (ESS 4990) utilizing:
 - Measure 1: ACSM¹ CEP Competencies; Section II “Exercise Prescription & Implementation”
 - 80% of students score higher than 4 out of 5
 - Measure 2: NSCA² CSCS Competencies; Practical- II – “Program Design” section
 - 80% of students score higher than 4 out of 5

Method B (Direct): Standardized cognitive and skill assignments and exams related to respective content areas in ESS courses which have a major emphasis in “Interpretation of Assessments and Development of Exercise Prescription”

Health/Fitness Evaluation & Exercise Prescription (ESS 2300)

- Measure 3: 80% of students score 80% or higher on the VO₂ and Heart Rate Reserve Assignment
- Measure 4: 80% of students score 80% or higher on the Exercise Program and Prescription Project

Clinical Exercise Physiology (ESS 4370)

- Measure 5: 80% of students score 80% or higher on the 10 question Exercise Prescription Quiz
- Measure 6: 80% of students score 80% or higher on the Individualized Exercise Program Project

Student Learning Outcome 4: Physical Activity for Functional Capacity

Incorporate suitable physical activities to improve functional capacity.

How Assessed:

- **Method A (Indirect⁺):** Self-evaluation in senior seminar course (ESS 4990) utilizing:
 - Measure 1: ACSM¹ CEP Competencies; Section II “Exercise Prescription & Implementation”
 - 80% of students score higher than 4 out of 5
 - Measure 2: NSCA² CSCS Competencies; Practical- II – Program Design” section
 - 80% of students score higher than 4 out of 5

Method B (Direct): Standardized cognitive and skill assignments and exams related to respective content areas in ESS and allied courses which have a major emphasis in “Incorporation of Physical Activity of for Functional Improvement”

Clinical Exercise Physiology (ESS 4370)

- Measure 3: 80% of students score 80% or higher on the Individualized Exercise Program Project
- Measure 4: 80% of students score 80% or higher on Oral presentation on Clinical Disease & Exercise

Student Learning Outcome 5: Exercise Counseling & Behavioral Strategies

Apply appropriate behavioral change techniques to effectively educate and counsel lifestyle modification.

How Assessed:

- **Method A (Indirect⁺):** Self-evaluation in senior seminar course (ESS 4990) utilizing:
 - Measure 1: ACSM¹ CEP Competencies; Section III “Exercise Counseling & Behavior Modification”
 - 80% of students score higher than 4 out of 5
 - Measure 2: ACSM/NAPS³ PAPHS Competencies; Area 3 – “Planning & Evaluating”
 - 80% of students score higher than 4 out of 5

Method B (Direct): Standardized cognitive and skill assignments and exams related to respective content areas in ESS and allied courses which have an emphasis in “Behavioral Change and Lifestyle Modification”

Measure 3: Health/Fitness Evaluation & Exercise Prescription (ESS 2300)

- 80% of students score 80% or higher on the Exercise Prescription and Program Assignment

Measure 4: Clinical Exercise Physiology (ESS 4370)

- 80% of students score 80% or higher

Student Learning Outcome 6: Risk Management & Injury Prevention

Create and disseminate risk management guidelines for a health/fitness facility, department or organization to reduce member, employee and business risk. OR Create an effective injury prevention program and ensure that emergency policies and procedures are in place.

How Assessed:

- **Method A (Indirect⁺):** Self-evaluation in senior seminar course (ESS 4990) utilizing:
 - Measure 1: ACSM¹ CEP Competencies; Section IV “Risk Management and Professional Responsibilities”
 - 80% of students score higher than 4 out of 5
 - Measure 2: NSCA² CSCS Competencies; Practical- III – Organization and Administration” section
 - 80% of students score higher than 4 out of 5

Method B (Direct): Standardized cognitive and skill assignments and exams related to respective content areas in ESS and allied courses which have an emphasis in “Risk Management and Emergency Procedure”

Measure 3: Emergency Response (RHS/AT 2300)

- 80% of students successfully complete the course (C or better)

Student Learning Outcome 7: Fitness Management

Perform duties related to fitness management, administration, and program supervision.

How Assessed:

- **Method A (indirect⁺):** Self-evaluation in senior seminar course (ESS 4990) utilizing:
 - Measure 1: ACSM¹ CEP Competencies; Section IV “Risk Management and Professional Responsibilities”
 - 80% of students score higher than 4 out of 5
 - Measure 2: NSCA² CSCS Competencies; Practical- III – Organization and Administration” section
 - 80% of students score higher than 4 out of 5

Method B (Direct): Standardized cognitive and skill assignments and exams related to respective content areas in ESS and allied courses which have an emphasis in “Management, Administration, and Supervision”

Measure 3: Corporative Work Experience (ESS 4890)

- 80% or more students successfully complete the course with a B- (80%) or better grade

¹ ACSM CEP – American College of Sports Medicine Certified Exercise Physiologist

² NSCA CSCS – National Strength & Conditioning Association, Certified Strength & Conditioning Specialist

³ ACSM/NAPS PAPHS- American College of Sports Medicine (ACSM)/National Physical Activity Society Physical Activity in Public Health Specialist

*All Indirect measures obtained from ESS 4990 (Senior Seminar) were implemented starting in the Fall 2019, and the results from the 2018 -2019 academic year are not available.

High Impact Educational Experiences in the Curriculum

Courses	Program use of High Impact Educational Experiences							
	Evidence-Based Teaching	Project-Based	Internship	Career Development	Undergraduate Research	Team-Based	Capstone	
ESS 2200				x				
ESS 2300		x						
ESS 3450	x	x				x		
ESS 3500	x							
ESS 3510	x							
ESS 3600		x				x		
ESS 4370	x	x						
ESS 4890			x					
ESS 4990				x			x	
NUTR 4520 (ESS 4800) Undergraduate Research		x			x			

HIEEs include capstone courses or experiences, community-engaged learning, evidence-based teaching practices, internships, project-based learning, study abroad/away, supplemental instruction, team-based learning, undergraduate research, pre-professional/career development experiences.

Additional information (HIEE planning, assessment, or other information):

Courses	Department/Program use of High Impact Educational Experiences	
	HIEE	Method of Measurement
ESS 2200	Career Development	<i>Students complete character strength assessment and gather evidence/information on a variety of Exercise Science professions to draw an evidence-supported conclusion on their career choice. Measure: Overall course grade; Target: 80% or better</i>
ESS 2300	Project-Based	<i>Students complete two major projects in the class. 1) Students conduct and evaluate complete fitness assessments on three individuals (hybrid) or one individual that is video recorded (online) and 2) they develop an exercise prescription and exercise program for one of these individuals based on their fitness assessment and evaluation results. Fitness assessment skills are then demonstrated and evaluated in a practical skills written final exam. Measure: overall course grade; Target: 80% or better</i>
ESS 3450	Project-Based Team-Based	<i>Students work in a small group (3 or 4) to complete an in-depth muscular analysis of an exercise and disseminate the results in an oral presentation and a written document that targets both exercise science professionals and the general public. Measure: Evaluation of the Exercise Analysis Project; Target: 80% or better</i>
ESS 3500	Evidence-based teaching practices	<i>Students interpret the data and draw evidence/data supported conclusions in the lab reports. Measure: Evaluation of the Lab reports; Target: 80% or better</i>
ESS 3510	Evidence-based teaching practices	<i>Students collect data, interpret results, and connect with appropriate physiological mechanisms in lab reports. Students learn how to administer different exercise physiology testing procedures. Measure: Evaluation of Lab reports (Cumulative Lab Report Grade Target B- or better) & Performance on laboratory practical; Target: 80% or better</i>
ESS 3600	Project-based Team-based	<i>Students work in small groups (3-5) to replicate a peer-reviewed research publication. Students review and critique the initial paper, then collect data, conduct statistical analysis, interpret results, and present findings to the class. Measure: Group Project Presentation; Target 80% or better.</i>
ESS 4370	Evidenced-base teaching practices; Project-Based	<i>Students complete two major projects: 1) they demonstrate evidenced based teaching practices by researching an assigned clinical disease topic and presenting their findings with focus on application to exercise testing and prescription, and 2) they complete a health appraisal and pre-participation assessment on a clinical population, interpret results, develop an exercise prescription plan, and develop a 3 month exercise program for this population. Measure: overall course grade; Target 80% or better.</i>
ESS 4890	Internship	<i>Students complete in an instructor approved field experience/internship of their choice. Measure: Overall course grade; Target 80% or better</i>
ESS 4990	Capstone	<i>Students reflect on their academic careers and develop ePortfolio summarizing their knowledge, skills, and abilities. Measure: Students' reflections and evaluation of the ePortfolio assignment</i>
NUTR 452 (ESS 4800)	Research	<i>Students complete a research project under the guidance of ESS faculty member. Measure: Evaluation of the student research project summary, abstract, poster and/or oral presentation; Target 80% or better</i>

B. Other programs

- a. General Education Outcomes (NOT APPLICABLE)
- b. Concurrent Enrollment (NOT APPLICABLE)
- c. Other interdisciplinary (NOT APPLICABLE)

Five-year Assessment Summary

A biennial assessment (covering Summer 2018 – Spring 2020) was completed in the fall of 2020 since the last 5-year program review.

Through this biennial report, the ESS program identified several issues and established action plans. Below is a summary of the identified issues and actions taken to address these issues.

- A significant misalignment between existing program learning objectives and the operating program goals. For example, the course learning outcomes in ESS 2200 are not effectively captured by the program learning outcomes.
 - HIEE competencies have been utilized to assess the curricular and pedagogical approaches used in ESS 2200.
- An excessive reliance on a few courses (ESS 2300 and ESS 4370) in achieving and assessing the learning objectives.
 - Small adjustments in the course-level outcomes have been made. However, the program-level outcomes have not been updated.
 - Making updates on the program goals and learning objectives (with the curriculum updates) to better align with the CASCE and CoAES accreditation standards was initially planned for this academic year. However, this process has been postponed due to limited personnel resource combined with an unexpected personnel turnover.
- Even though our students have been meeting most of the learning objectives and competencies (assessed through direct measures), our seniors felt that they were not as capable in some of the competency and skill areas (assessed through indirect measures in ESS 4990, Senior Seminar).
 - In order to bridge the gap between students' actual performance and their perception of their performance, small course level changes (ex. hands-on skill activities) were made. However, COVID-related restrictions and online delivery to accommodate students affected the hands-on skill practice opportunities. However, we have been offering weekly 'open lab' times at the Human Performance Lab to facilitate hands-on skill practices.
 - Our goal is to add more opportunities for students to practice the skills by creating new courses and update existing courses to cover competencies, knowledge and skills described in the CASCE and CoAES accreditation standards by utilizing a new faculty line. As indicated above, the curricular updates have been postponed due to limited personnel resources.
- The curriculum is deficient in the areas of management/administration of fitness facilities and interpretation of health and fitness assessments and exercise program design and implementation specifically concerning special populations (with chronic diseases/injuries).
 - Students have been able to learn and practice hands-on assessment skills and management skills through faculty-mentored research.
 - We have identified a potential support course on facility management (OCRE 3700) that can be included in the list of elective courses.
 - Our plan is to create a new course on assessment and exercise program design for special populations when curriculum is updated.

It has been 2 years since the biennial assessment summarized above. The program's strengths identified included comprehensive and systemic (program-wide) integration of high impact educational experience (HIEE) and attainment of Outcome 1: "Foundational Core Knowledge and Skills" in most of the ESS courses. The target performance under the "Foundational Core Knowledge

and Skills” was not met in a few courses. We have made efforts to improve this outcome by refining instructions and providing more guidance to the students at individual course level. Additionally, we are exploring to identify the artifacts would best capture students’ performance most accurately. Most, if not all, issues identified through the biennial review could be addressed efficiently by updating the curriculum. Aligning our curriculum with the competencies established by the Council on Accreditation of Strength and Conditioning Education (CASCE) and the Accreditation for the Exercise Sciences (CoAES), two accreditations that the program plan to pursue, will facilitate establishment of new program-level and course-level learning outcomes and more systemic and strategic assessment of these learning outcomes. Specific artifacts to measure the new learning outcomes is best identified when the course-level learning outcomes are established through this update process. The curriculum updates as well as application for accreditations was originally scheduled for Summer/Fall 2022. However, this process was postponed until the summer/fall of 2023 due to the program’s limited personnel resources and unexpected turnovers of the program faculty.

Assessment of Graduating Students

Assessment of graduating seniors of the Bachelor of Science in Exercise and Sport Science Program primarily occurs in the Senior Seminar (ESS 4990) and Corporative Work Experience (ESS 4890, Internship) courses. All students enrolled in ESS 4990 complete self-evaluations using various tools including competencies for American College of Sports Medicine Certified Exercise Physiologist (ACSM CEP), National Strength & Conditioning Association, Certified Strength & Conditioning Specialist (NSCA CSCS), and for American College of Sports Medicine (ACSM)/National Physical Activity Society Physical Activity in Public Health Specialist (ACSM/NAPS PAPHS), which provide data from indirect measures. The direct measurements of students’ performance are obtained from the students’ ePortfolio developed in the Senior Seminar course and from various assignments in other senior-level courses including Biomechanics (ESS 3500) and Clinical Exercise Physiology (ESS 4370). Additionally, qualitative data are gathered through several discussion/seminar sessions during the ESS 4990 course. The competencies of the students in clinical/practical settings are directly evaluated both by the internship site supervisor and the internship coordinator through assignments in ESS 4890 course.

Evidence of Learning Summary Table: ESS Student Learning Outcomes

Measurable Learning Outcome	Method of Measurement	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Closing the Loop"
Learning Outcome 1: Knowledge & Skills	Measure 1: <u>Method 1 (Indirect): ESS 4990:</u> Self-evaluation in senior seminar course utilizing: NSCA ² Certified Strength & Conditioning Specialist (CSCS) Competencies; Section I "Scientific Foundations" section	Measure 1: 80% of students score higher than 4 out of 5	Measure 1: Overall: 68% of students scored ≥4 out of 5 Fall 19: 57.9% (11 out of 19) Spring 20: 68.4 (13 out of 19) Fall 20: 77.8% (7 out of 9) Spring 21: 69.6% (16 out of 23) Fall 21: 72.3% (8 out of 11) Spring 22: 71.4% (10 out of 14)	Measure 1: The average score was 4.18. Of 14 scientific foundation criteria, the lowest (mean score of 3.53) was "Apply knowledge of neuroendocrine physiology"	Make concepts of neuroendocrine physiology more explicit as discussed in exercise and clinical physiology courses.	Assess the student knowledge in neuroendocrine physiology in appropriate courses.
	Measure 2: ESS 4990: ACSM/NPAS ³ Physical Activity in Public Health Specialist (PAPHS) Competencies; Area 6 "Exercise Science in Public Health Setting"	Measure 2: 80% of students score higher than 4 out of 5	Measure 2: Overall: 92.6% of students scored ≥4 out of 5 Fall 19: 89.5% (17 out of 19) Spring 20: 94.7% (18 out of 19) Fall 20: 90% (9 out of 10) Spring 21: 90.5% (19 out of 21)	Measure 2: Students on average felt they were competent in exercise science knowledge (average 4.45).	Continue as is	n/a

			Fall 21: 100% (11 out of 11) Spring 22: 92.9% (13 out of 14)			
	Measure 3: ESS 3450: Standardized cognitive and skill assignments and exams related to respective content areas in ESS courses which have a major emphasis in “Foundational Core Knowledge and Skills”	Measure 3: Structural Kinesiology (ESS 3450), 80 % of students scores 80% or better on labs	Measure 3: Overall: 89.3% of students scored 80% or better Su18: 100% (19 out of 19) F18: 89.5% (34 out of 38) S19: 77.8% (28 out of 36) Su19: 93.8% (15 out of 16) F19: 94.1% (32 out of 34) S20: 83.3% (45 out of 54) Su20: 100% (24 out of 24) F20: 86.1% (31 out of 36) S21: 96.8% (30 out of 31) Su21:84.6% (11 out of 13) F21: 89.5% (34 out of 38) S22: 90.7% (39 out of 43)	Measure 3: Students successfully completed competencies.	No curricular or pedagogical modifications are necessary at this point; low-scoring areas are in the unit 1 (theory-heavy) contents. Frequent, low stake assessments with timely feedback could benefit.	Identify the areas where students struggle and improve the instructions and provide more guidance.

	<p>Measure 4: ESS 3500: Standardized cognitive and skill assignments and exams related to respective content areas in ESS courses which have a major emphasis in “Foundational Core Knowledge and Skills”</p>	<p>Measure 4: Biomechanics (ESS 3500), 80% of students’ scores 80% or better on questions in the final exam</p>	<p>Measure 4: Overall: 45.9% of students scored 80% or better F18 & S19: data not available F19: 37.8% (14 out of 37) S20: 67.7% (23 out of 34) F20: 37.1% (13 out of 35) S21: 44.8% (13 out of 29) F21: 52.0% (13 of 25) S22: 36.0% (9 out of 25)</p>	<p>Measure 4: Students struggled with the practical application of scientific knowledge.</p>	<p>Use wider variety of examples of practical application based on the students’ interests. Consider additional methods of measurement as multiple-choice questions used many not effectively capture students’ level of competency.</p>	<p>Analyze the results on assignments from which data are gathered and determine if clarity of instruction improves student performance.</p>
	<p>Measure 5: ESS 3510: Standardized cognitive and skill assignments and exams related to respective content areas in ESS courses which have a major emphasis in “Foundational Core Knowledge and Skills”</p>	<p>Measure 5: Exercise Physiology (ESS 3510), 80% of students successfully completes the course (C or better)</p>	<p>Measure 5: Overall: 90% of students received C or better F18- 91.9% (44 out of 48) S19-95.3% (41 out of 43) F19-93.5% (42 out of 45) S20-92.7% (35 out of 38) F20: 87.3% (48 out of 55) S21: 80.0% (36 out of 45) F21: 88.9% (32 out of 36) S22: 92.3% (36 out of 39)</p>	<p>Measure 5: Students completed the competencies successfully.</p>	<p>No curricular or pedagogical modifications are needed at this time.</p>	<p>Identify low scoring areas of the course to improve the clarity of the instructions and assignments.</p>

Learning Outcome 2: Health & Fitness Assessment	Measure 1: ESS 4990: Method 1 (Indirect): Self-evaluation in senior seminar course utilizing: ACSM ¹ CEP Competencies; Section I “Heath & Fitness Assessment”	Measure 1: 80% of students score higher than 4 out of 5	Measure 1: Overall: 66.3% of students scored ≥4 out of 5 Fall 19: 68.4% (13 out of 19) Spring 20: 78.9% (15 out of 19) Fall 20: 66.7% (6 out of 9) Spring 21: 65.2% (15 out of 23) Fall 21: 63.6% (7 out of 11) Spring 22: 50.0% (7 out of 14)	Measure 1: The average score was 4.07. Of 6 criteria, the lowest (3.80 average) was “Conduct and interpret cardiorespiratory fitness assessments.”	Consider integrating more practicum in cardiorespiratory fitness assessments.	Evaluate practical skills on cardiorespiratory fitness assessment skills to identify the areas of improvements.
	Measure 2: ESS 4990: Method 1 (Indirect): Self-evaluation in senior seminar course utilizing: NSCA ² CSCS Competencies; Practical-IV- Testing & Evaluation” section	Measure 2: 80% of students score higher than 4 out of 5	Measure 2: Overall: 70.2% of students scored ≥4 out of 5 Fall 19: 52.6% (10 out of 19) Spring 20: 68.4% (13 out of 19) Fall 20: 66.7% (6 out of 9) Spring 21: 73.9% (17 out of 23) Fall 21: 81.8% (9 out of 11) Spring 22: 57.1% (8 out of 14)	Measure 2: The average score was 4.01. Of 3 criteria, the lowest (3.95 average) was “Administer test protocols and procedures to ensure reliable data collection.”	Consider including more opportunities for administering, documenting, and interpretating health and fitness tests across the curriculum.	Critically assess skills on administration and interpretation of health and fitness testing protocols to identify the weaker performance areas. Additional practicum activities have been introduced in ESS 2300.

	<p>Measure 3: <u>Method 2 (Direct): ESS 2300:</u> Standardized cognitive and skill assignments and exams related to respective content areas in ESS courses which have a major emphasis in “Pre-participation Health Screenings and Fitness Assessments”</p>	<p>Measure 3: 80% of students score 80% or higher on Complete Fitness Assessment (or Personal Fitness Assessment during COVID restrictions) Assignment</p>	<p>Measure 3: Overall: 93.7% of students scored ≥80% F18 & S19: data not available F19: 90.1% (20 out of 22) S20: 93.9% (31 out of 33) Su20: data not available F20: 100% (17 out of 17) S21: 93% (28 out of 30) Su21: 100% (15 out of 15) F21: 91% (29 out of 32) S22: 93% (37 out of 40)</p>	<p>Measure 3: Students successfully completed competencies.</p>	<p>No curricular or pedagogical changes needed at this time</p>	<p>Analyze the performance on lower scores and determine if clarity of instruction or feedback improves student performance.</p>
	<p>Measure 4: <u>Method 2 (Direct): ESS 2300:</u> Standardized cognitive and skill assignments and exams related to respective content areas in ESS courses which have a major emphasis in “Pre-participation Health Screenings and Fitness Assessments”</p>	<p>Measure 4: 80% of students score 80% or higher on quiz questions (17 multiple choice questions in chapter 2 quiz)</p>	<p>Measure 4: Overall: 93.9% of students scored ≥80% F18 & S19: data not available F19: 90.1% (20 out of 22) S20: 84.8% (28 out of 33) Su20: data not available F20: 100% (17 out of 17) S21: 97% (33 out of 34)</p>	<p>Measure 4: Students successfully completed competencies.</p>	<p>No curricular or pedagogical changes needed at this time</p>	<p>Analyze the performance on lower scores and determine if clarity of instruction or feedback improves student performance.</p>

			Su21: 100% (15 out of 15) F21: 94% (32 out of 34) S22: 95% (39 out of 41)			
Measure 5: <u>Method 2 (Direct): ESS 2300</u> : Standardized cognitive and skill assignments and exams related to respective content areas in ESS courses which have a major emphasis in “Pre-participation Health Screenings and Fitness Assessments”	Measure 5: 80% of students score 80% or higher on the Practical Skills Final Exam (Written exam during and after COVID restrictions)	Measure 5: Overall: 68.3% of students scored ≥80% F18 & S19: data not available F19: 90.1% (20 out of 21) S20: no practical skills exam due to COVID. Su20: data not available F20: 47% (8 out of 17) S21: 48% (15 out of 31) Su21: 100% (15 out of 15) F21: 68% (21 out of 31) S22: 68% (27 out of 40)	Measure 5: In fall 2020, the exam was changed to a written exam focused on practical skills questions vs. demonstrations due to continued COVID restrictions and accommodation of fully online course sections. The lower performance in F20 and S21 might be related to students adjusting post-COVID. Students’ performance improved in F21 and S22 with continued exam modification (see closing the gap).	Regular updates on the course (assignments and feedback) have improved students’ performance. Exam questions were analyzed every semester to identify low scores. A face to face review session with zoom option was added in addition to a Kahoot sample exam and extensive study guide which improved scores.	Analyze the performance on lower scores and determine if clarity of instruction or feedback improves student performance. A written exam does not fully capture assessment of the practical skills required for this course. Monitoring and reporting the practical skills labs/learning activities cumulative grade for both hybrid and online course sections provides a much better assessment of practical skills because these labs require practical skill demonstration. Therefore, the cumulative learning activity grade will be utilized for future reviews.	
Measure 6: ESS 3600 : Measurement and Statistics in Exercise Science	Measure 6: 80% of students score 80% or better on Group	Measure 6: Overall: 97% of students scored ≥80%	Measure 6: Students successfully completed the competencies.	No specific actions in curricular modifications are needed at this time.	n/a	

		Research Replication Project.	F18: 100% (22 out of 22) S19: 94.4% (17 out of 18) F19: 95.7% (22 out of 23) S20: 100% (20 out of 20) F20: 96.0% (24 out of 25) S21: 100% (21 out of 21) F21: 88% (15 out of 17) S22: 100% (18 out of 18)			
	Measure 7: ESS 3600: Measurement and Statistics in Exercise Science	Measure 7: 80% of students score C or better in the course	Measure 7: Overall: 90.2% of students scored ≥80% F18: 95.5% (21 out of 22) S19: 88.9% (16 out of 18) F19: 87.0% (20 out of 23) S20: 95.0% (19 out of 20) F20: 96.0% (24 out of 25) S21: 95.2% (20 out of 21) F21: 70% (12 out of 17) S22: 89% (16 out of 18)	Measure 7: Students successfully achieved the competencies.	No specific changes in the course pedagogy are needed at this point.	Identify low-performing areas of the course and provide additional guidance to improve the performance.
	Measure 8: ESS 4370: Clinical Exercise Physiology	Measure 8: 80% of students score 80% or higher on the 10 question Health	Measure 8: Overall: 92.0% of students scored ≥80%	Measure 8: Three students unsuccessfully met competency in F19. Majority of students	Curriculum revised spring 2020 with a resultant increase in scores. No further curricular or	Analyze the performance on lower scores and determine if clarity of instruction

		Screening and Pre-Exercise Evaluation Quiz	F18: course not offered S19: 86.7% (13 out of 15) F19: 78.6% (11 out of 14) S20: 95% (18 out of 19) F20: 100% (11 out of 11) S21: 93% (26 out of 28) F21: 92% (12 out of 13) S22: 100% (13 out of 13)	successfully completed competencies after S20.	pedagogical changes needed at this time.	or feedback improves student performance.
	Measure 8: ESS 4370: Clinical Exercise Physiology	Measure 9: 80% of students score 80% or higher on the Individualized Exercise Program Project	Measure 9: Overall: 90.1% of students scored ≥80% F18: course not offered S19: 80% (12 out of 15) F19: 100% (14 out of 14) S20: 95% (18 out of 19) F20: 82% (9 out of 11) S21: 89% (25 out of 28) F21: 90.1% (10 out of 11) S22: 92% (12 out of 13)	Measure 9: Students successfully completed competencies.	No curricular or pedagogical changes needed at this time. Periodic feedback to students helped improve student performance.	Analyze the performance on lower scores and determine if clarity of instruction or feedback improves student performance.
Learning Outcome 3: Exercise Prescription	Measure 1: ESS 4990: Self-evaluation in senior seminar course utilizing ACSM ¹ CEP Competencies; Section II "Exercise	Measure 1: 80% of students score higher than 4 out of 5	Measure 1: Overall: 59.5% of students	Measure 1: The average score was 3.88. Of the lowest score (3.45 average) was	Make exercise prescription more explicit in the current curriculum and consider adding discussion on	Evaluate learning outcomes on exercise prescription and collaboration.

	Prescription & Implementation”		scored ≥4 out of 5 Fall 19: 42.1% (8 out of 19) Spring 20: 57.9% (11 out of 19) Fall 20: 66.7% (6 out of 9) Spring 21: 39.1% (9 out of 23) Fall 21: 54.5% (6 out of 11) Spring 22: 50.0% (7 of 14)	“Prescribe and implement exercise programs for clients with controlled cardiovascular, pulmonary, and metabolic diseases and other clinical populations and work closely with clients’ healthcare providers, as needed. (Synthesis)”	collaboration with healthcare professionals.	
	Measure 2: ESS 4990: Self-evaluation in senior seminar course utilizing NSCA ² CSCS Competencies; Practical- II – “Program Design” section (9 criteria)	Measure 2: 80% of students score higher than 4 out of 5	Measure 2: Overall: 78.9% of students scored ≥4 out of 5 Fall 19: 47.4% (9 out of 19) Spring 20: 89.5% (17 out of 19) Fall 20: 66.7% (6 out of 9) Spring 21: 82.6% (19 out of 23) Fall 21: 81.8% (9 out of 11) Spring 22: 78.6% (11 out of 14)	Measure 2: The average score was 4.21. Of 9 criteria, the lowest score (3.84) was “Designing programs for an injured athlete during the reconditioning period (e.g., assigning exercises for a given injury or condition in collaboration with sport medicine professionals).”	The curriculum needs to be sure to cover this competency in the curriculum. Consider including guest lectures by the Athletic Training program across the curriculum.	Assess student learning outcome on program design in collaboration with other healthcare/fitness professionals.
	Measure 3: ESS 2300: Standardized cognitive and skill assignments and exams related to	Measure 3: 80% of students score 80% or higher on the VO ₂	Measure 3: Overall: 88.6% of	Measure 3: Students successfully completed competencies.	No curricular or pedagogical changes needed at this time	Analyze the performance on lower scores and determine if clarity of instruction

	<p>respective content areas in ESS courses which have a major emphasis in “Interpretation of Assessments and Development of Exercise Prescription” in Health/Fitness Evaluation & Exercise Prescription</p>	<p>and Heart Rate Reserve Assignment</p>	<p>students scored ≥80%</p> <p>F18 & S19: data not available F19: 90.9% (20 out of 22) S20: 84.8% (28 out of 33) F20: 94% (16 out of 17) S21: 86% (25 out of 29) Su21: 87% (13 out of 15) F21: 86% (25 out of 29) S22: 93% (37 out of 40)</p>			<p>or feedback improves student performance.</p>
	<p>Measure 4: ESS 2300: Standardized cognitive and skill assignments and exams related to respective content areas in ESS courses which have a major emphasis in “Interpretation of Assessments and Development of Exercise Prescription” in Health/Fitness Evaluation & Exercise Prescription</p>	<p>Measure 4: 80% of students score 80% or higher on the Exercise Program and Prescription Project</p>	<p>Measure 4: Overall: 80.42% of students scored ≥80%</p> <p>F18 & S19: data not available F19: 90.9% (20 out of 22) S20: 84.8% (28 out of 33) F20: 88% (15 out of 17) S21: 73% (22 out of 30) Su21: 93% (14 out of 15) F21: 66% (21 out of 32) S22: 80% (32 out of 40)</p>	<p>Measure 4: Students successfully completed competencies.</p> <p>Lower performance might be related to ONL delivery format.</p> <p>Lower scores were largely a result of no submission or incomplete assignments for online students.</p>	<p>The instructions and assignments have been updated to help students with exercise program design.</p> <p>The majority of students now take this course online. Verbal instructions and a sample exercise program were added to the assignment. Further, it was noted that many students scored low because they did not finish the assignment.</p>	<p>Analyze the performance on lower scores and determine if clarity of instruction or feedback improved student performance.</p> <p>The project was revised to include fewer, but more detailed, workout plans. The assignment due date was also moved earlier to avoid the end of the semester workload. This has increased submission rates and assignment completion.</p>

	<p>Measure 5: ESS 4370: Standardized cognitive and skill assignments and exams related to respective content areas in ESS courses which have a major emphasis in “Interpretation of Assessments and Development of Exercise Prescription” in Clinical Exercise Physiology</p>	<p>Measure 5: 80% of students score 80% or higher on the 10 question Exercise Prescription Quiz</p>	<p>Measure 5: Overall: 91.2% of students scored ≥80% F18: course not offered S19: 86.7% (13 out of 15) F19: 85.7% (12 out of 14) S20: 100% (19 out of 19) F20: 82 % (9 out of 11) S21: 100% (28 out of 28) F21: 85% (11 out of 13) S22: 85% (11 out of 13)</p>	<p>Measure 5: Students successfully completed competencies</p>	<p>No curricular or pedagogical changes needed at this time</p>	<p>Analyze the performance on lower scores and determine if clarity of instruction or feedback improves student performance.</p>
	<p>Measure 6: ESS 4370: Standardized cognitive and skill assignments and exams related to respective content areas in ESS courses which have a major emphasis in “Interpretation of Assessments and Development of Exercise Prescription” in Clinical Exercise Physiology</p>	<p>Measure 6: 80% of students score 80% of higher on the Individualize Exercise Program Project</p>	<p>Measure 9: Overall: 90.1% of students scored ≥80% F18: course not offered S19: 80% (12 out of 15) F19: 100% (14 out of 14) S20: 95% (18 out of 19) F20: 82% (9 out of 11) S21: 89% (25 out of 28) F21: 90.1% (10 out of 11) S22: 92% (12 out of 13)</p>	<p>Measure 6: Students successfully completed competencies</p>	<p>No curricular or pedagogical changes needed at this time</p>	<p>Analyze the performance on lower scores and determine if clarity of instruction or feedback improves student performance.</p>

Learning Outcome 4: Physical Activity for Functional Capacity	Measure 1: ESS 4990: Self-evaluation in senior seminar course utilizing: ACSM ¹ CEP Competencies; Section II “Exercise Prescription & Implementation” (8 criteria)	Measure 1: 80% of students score higher than 4 out of 5	Measure 1: Overall: 49.5% of students scored ≥4 out of 5 Fall 19: 42.1% (8 out of 19) Spring 20: 57.9% (11 out of 19) Fall 20: 66.7% (6 out of 9) Spring 21: 39.1% (9 out of 23) Fall 21: 54.5% (6 out of 11) Spring 22: 50.0% (7 out of 14)	Measure 1: The average score was 3.91. Of the lowest score (3.45 average) was “Prescribe and implement exercise programs for clients with controlled cardiovascular, pulmonary, and metabolic diseases and other clinical populations and work closely with clients’ healthcare providers, as needed. (Synthesis)”	Make the curriculum on (already in place) exercise prescription more explicit, and also consider adding discussion on collaboration with healthcare professionals.	Evaluate learning outcomes on exercise prescription and collaboration.
	Measure 2: ESS 4990: Self-evaluation in senior seminar course utilizing: NSCA ² CSCS Competencies; Practical- II – Program Design” section (9 criteria)	Measure 2: 80% of students score higher than 4 out of 5	Measure 2: Overall: 78.9% of students scored ≥4 out of 5 Fall 19: 47.4% (9 out of 19) Spring 20: 89.5% (17 out of 19) Fall 20: 66.7% (6 out of 9) Spring 21: 82.6% (19 out of 23) Fall 21: 81.8% (9 out of 11) Spring 22: 78.6% (11 out of 14)	Measure 2: The average score was 4.21. Of 9 criteria, the lowest score (3.84) was “Designing programs for an injured athlete during the reconditioning period (e.g., assigning exercises for a given injury or condition in collaboration with sport medicine professionals).”	The curriculum needs to be sure to cover this competency in the curriculum.	Assess student learning outcome on program design.

	<p>Measure 3: ESS 4370: Standardized cognitive and skill assignments and exams related to respective content areas in ESS and allied courses which have a major emphasis in “Incorporation of Physical Activity of for Functional Improvement”</p>	<p>Measure 3: 80% of students score 80% or higher on the Individualized Exercise Program Project</p>	<p>Measure 9: Overall: 90.1% of students scored ≥80% F18: course not offered S19: 80% (12 out of 15) F19: 100% (14 out of 14) S20: 95% (18 out of 19) F20: 82% (9 out of 11) S21: 89% (25 out of 28) F21: 90.1% (10 out of 11) S22: 92% (12 out of 13)</p>	<p>Measure 3: Students successfully completed competencies</p>	<p>No curricular or pedagogical changes needed at this time</p>	<p>Analyze the performance on lower scores and determine if clarity of instruction or feedback improves student performance.</p>
	<p>Measure 4: ESS 4370: Standardized cognitive and skill assignments and exams related to respective content areas in ESS and allied courses which have a major emphasis in “Incorporation of Physical Activity of for Functional Improvement”</p>	<p>Measure 4: 80% of students score 80% or higher on Oral presentation on Clinical Disease & Exercise</p>	<p>Measure 4: Overall: 94.7% of students scored ≥80% S19: 100% (15 out of 15) F19: 92.9% (13 out of 14) S20: 89.5% (17 out of 19) F20: 90.9% (10 out of 11) S21: 92.8% (26 out of 28) F21: 100% (13 out of 13) S22: 100% (13 out of 13)</p>	<p>Measure 4: Students successfully completed competencies</p>	<p>No curricular or pedagogical changes needed at this time</p>	<p>Analyze the performance on lower scores and determine if clarity of instruction or feedback improves student performance.</p>

Learning Outcome 5: Exercise Counseling & Behavioral Strategies	Measure 1: ESS 4990: Self-evaluation in senior seminar course utilizing: ACSM ¹ CEP Competencies; Section III “Exercise Counseling & Behavior Modification” (4 criteria)	Measure 1: 80% of students score higher than 4 out of 5	Measure 1: Overall: 64.2% of students scored ≥4 out of 5 Fall 19: 57.9% (11 out of 19) Spring 20: 84.2% (16 out of 19) Fall 20: 66.7% (6 out of 9) Spring 21: 69.6% (16 out of 23) Fall 21: 54.5% (6 out of 11) Spring 22: 42.9% (6 out of 14)	Measure 1: The average score was 4.04. Some felt competent in this area, but others did not feel as competent. The lowest of the 4 criteria was “Provide support within the scope of practice of an ACSM Certified Exercise Physiologist and refer to other health professionals as indicated. (Application)”	Make discussion on this topic more explicit.	Add clarity to instructions and assignments.
	Measure 2: ESS 4990: Self-evaluation in senior seminar course utilizing: ACSM/NAPS ³ PAPHS Competencies; Area 3 – “Planning & Evaluating”	Measure 2: 80% of students score higher than 4 out of 5	Measure 2: Overall: 33.7% of students scored ≥4 out of 5 Fall 19: 42.1% (8 out of 19) Spring 20: 47.4% (9 out of 19) Fall 20: 50.0% (5 out of 10) Spring 21: 19.0% (4 out of 21) Fall 21: 29.3% (3 out of 11) Spring 22: 21.4% (3 out of 14)	Measure 2: More than half of the students felt they were not as competent in administrative planning and evaluation tasks.	Include administrative/management topics specific to fitness professions in the curriculum.	Appropriately assess the learning outcome using direct measure.

	<p>Measure 3: ESS 2300: Standardized cognitive and skill assignments and exams related to respective content areas in ESS and allied courses which have an emphasis in “Behavioral Change and Lifestyle Modification” in Health/Fitness Evaluation & Exercise Prescription</p>	<p>Measure 3: 80% of students score 80% or higher on the Exercise Prescription and Program Assignment</p>	<p>Measure 3: Overall: 80.42% of students scored ≥80% F18 & S19: data not available F19: 90.9% (20 out of 22) S20: 84.8% (28 out of 33) F20: 88% (15 out of 17) S21: 73% (22 out of 30) Su21: 93% (14 out of 15) F21: 66% (21 out of 32) S22: 80% (32 out of 40)</p>	<p>Measure 3: Lower performance might be related to ONL delivery format. Lower scores were largely a result of no submission or incomplete assignments for online students.</p>	<p>The instructions and assignments have been updated to help students with exercise program design. The majority of students now take this course online. Verbal instructions and a sample exercise program were added to the assignment. Further, it was noted that many students scored low because they did not finish the assignment</p>	<p>Analyze the performance on lower scores and determine if clarity of instruction or feedback improved student performance. The project was revised to include fewer, but more detailed, workout plans. The assignment due date was also moved earlier to avoid the end of the semester workload. This has increased submission rates and assignment completion.</p>
	<p>Measure 4: ESS 4370: Standardized cognitive and skill assignments and exams related to respective content areas in ESS and allied courses which have an emphasis in “Behavioral Change and Lifestyle Modification” in Clinical Exercise Physiology</p>	<p>Measure 4: 80% of students score 80% or higher</p>	<p>Measure 4: Overall: 93.8% of students scored ≥80% S19: 80.0% (12 out of 15) F19: 100% (14 out of 14) S20: 94.7% (18 out of 19) F20: 90.1% (10 out of 11) S21: 100% (28 out of 28) F21: 84.6% (11 out of 13) S22: 100% (13 out of 13)</p>	<p>Measure 4: Students successfully completed competencies</p>	<p>No curricular or pedagogical changes needed at this time</p>	<p>Analyze the performance on lower scores and determine if clarity of instruction or feedback improves student performance.</p>

Learning Outcome 6: Risk Management & Injury Prevention	Measure 1: ESS 4990: Self-evaluation in senior seminar course utilizing: ACSM ¹ CEP Competencies; Section IV “Risk Management and Professional Responsibilities”	Measure 1: 80% of students score higher than 4 out of 5	Measure 1: Overall: 73.7% of students scored ≥4 out of 5 Fall 19: 73.7% (14 out of 19) Spring 20: 73.7% (14 out of 19) Fall 20: 100% (9 out of 9) Spring 21: 73.9% (17 out of 23) Fall 21: 63.6% (7 out of 11) Spring 22: 64.3% (9 out of 14)	Measure 1: The average score for this competency was 4.01. While some feels very competent in this area, others felt as not competent.	Provide consistent instructions/guidance in this area through internship experience.	Identify low-performed areas to add clarity to the assignments.
	Measure 2: ESS 4990: Self-evaluation in senior seminar course utilizing: NSCA ² CSCS Competencies; Practical-III – Organization and Administration” section (4 criteria)	Measure 2: 80% of students score higher than 4 out of 5	Measure 2: Overall: 57.9% of students scored ≥4 out of 5 Fall 19: 42.1% (8 out of 19) Spring 20: 47.4% (9 out of 19) Fall 20: 77.8% (7 out of 9) Spring 21: 52.2% (12 out of 23) Fall 21: 63.6% (7 out of 11)	Measure 2: The average score was 3.87. The lowest of 4 criteria was “Determine the design, layout, and organization of the strength and conditioning facility (e.g., flooring, ceiling height, mirror placement, ventilation, lighting, characteristics of the equipment) based on athletic needs and industry standards.”	Discussion on organization and administration specific to fitness facility needs to be added to the curriculum.	Assess organization of administration learning outcomes.

			Spring 22: 50.0% (7 out of 14)			
	Measure 3: RHS/AT 2300: Standardized cognitive and skill assignments and exams related to respective content areas in ESS and allied courses which have an emphasis in “Risk Management and Emergency Procedure” in Emergency Response	Measure 3: 80% of students successfully complete the course (C or better)	Measure 3: Overall: 89.6% of students successfully completed the course	Measure 3: Students successfully completed the competencies	No pedagogical changes are needed at this time.	
Learning Outcome 7: Fitness Management	Measure 1: ESS 4990: Self-evaluation in senior seminar course utilizing: ACSM ¹ CEP Competencies; Section IV “Risk Management and Professional Responsibilities” section (2 criteria)	Measure 1: 80% of students score higher than 4 out of 5	Measure 1: Overall: 73.7% of students scored ≥4 out of 5 Fall 19: 73.7% (14 out of 19) Spring 20: 73.7% (14 out of 19) Fall 20: 100% (9 out of 9) Spring 21: 73.9% (17 out of 23) Fall 21: 63.6% (7 out of 11) Spring 22: 64.3% (9 out of 14)	Measure 1: The average score for this competency was 4.01. The criterion scored lower (average of 3.78) was “Develop and disseminate risk management guidelines for a health/fitness facility to reduce member, employee, and business risk. (Application)”	Development and dissemination of risk management guidelines in appropriate courses need to be more explicit and expanded.	Assess risk management learning outcome in courses needs to be assessed using direct measures.
	Measure 2: ESS 4990: Self-evaluation in senior seminar course utilizing: NSCA ² CSCS Competencies; Practical-III – Organization and	Measure 2: 80% of students score higher than 4 out of 5	Measure 2: Overall: 50% of students scored ≥4 out of 5	Measure 2: The average score was 3.89. The lowest of 4 criteria was “Determine the design, layout, and	Discussion on organization and administration specific to fitness facility needs to be added to the curriculum.	Assess organization of administration learning outcomes.

	Administration” section (4 criteria)		Fall 19: 42.1% (8 out of 19) Spring 20: 47.4% (9 out of 19) Fall 20: 77.8% (7 out of 9) Spring 21: 52.2% (12 out of 23) Fall 21: 63.6% (7 out of 11) Spring 22: 50.0% (7 out of 14)	organization of the strength and conditioning facility (e.g., flooring, ceiling height, mirror placement, ventilation, lighting, characteristics of the equipment) based on athletic needs and industry standards.”		
	Measure 3: ESS 4890: Standardized cognitive and skill assignments and exams related to respective content areas in ESS and allied courses which have an emphasis in “Management, Administration, and Supervision” in Corporative Work Experience. Perform duties related to fitness management, administration, and program supervision.	Measure 3: 80% or more students successfully complete the course with a B- (80%) or better grade	Measure 3: Overall: 94.8% of students scored ≥B- Su18: 100% (13 out of 13) F18: 100% (8 out of 8) S19: 100% (13 out of 13) Su19: 100% (9 out of 9) F19: 100% (3 out of 3) S20: 100% (9 out of 9) Su20: course not offered due to COVID F20: 88% (7 out of 8) S21: 80% (8 out of 10) Su21: 100% (8 out of 8)	Measure 3: Students completed met the competencies successfully.	No major changes in pedagogy are needed at this time; however, using the artifacts that are specifically assess this learning outcome will provide more accurate results.	Assess this outcome using an appropriate direct measure.

			F21: 75% (6 out of 8) S22: 100% (7 out of 7)			
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*Fall 2018 and Spring 2019 outcome data for ESS 2300 are not available due to the course instructor leaving the position.

Evidence of High Impact Educational Experiences in the Curriculum

Course	HIEE	Description	Target Performance	Actual Performance	Action Plan	Closing the loop
ESS 2200	Career Development	Students complete character strength assessment and gather evidence/information on a variety of Exercise Science professions to draw an evidence-supported conclusion on their career choice.	course grade: 80% or better	Su20: 83.3% (15 out of 18) F20: 89.2% (33 out of 37) S21: 75.0% (15 out of 20) Su21: 91.7% (33 out of 36) F21: 94.0% (47 out of 50) S22: 92.0% (46 out of 50)	No pedagogical changes are needed at this time. Low scores S21 were related to new instructor for the course who has since met with the primary instructor to ensure consistent grading and evaluation.	Analyze the performance on lower scores and determine if clarity of instruction or feedback improves student performance
ESS 2300	Project-Based	Students complete two major projects in the class. 1) Students conduct and evaluate complete fitness assessments on three individuals (hybrid) or one individual that is video recorded (online) and 2) they develop an exercise prescription and exercise program for one of these individuals based on their fitness assessment and evaluation results. Fitness assessment	course grade: 80% or better	F20: 88% (15 out of 17) S21: 77% (24 out of 31) Su21: 100% (15 out of 15) F21: 81% (26 out of 32) S22: 88% (35 out of 40)	No pedagogical changes are needed at this time. S21 and F21 were the first time the course was taught fully online with no F2F option. Assignments have since been revised	Analyze the performance on lower scores and determine if clarity of instruction or feedback improves student performance. Continue to monitor online course scores and need for

		skills are then demonstrated and evaluated in a practical skills written final exam.			to accommodate online learning as reflected by higher scores in subsequent semesters.	additional instruction and explanations.
ESS 3450	Project-based; team-based	Students work in a small group (3 or 4) to complete an in-depth muscular analysis of an exercise and disseminate the results in an oral presentation and a written document that targets both exercise science professionals and the general public.	Evaluation of the Exercise Analysis Project: 80% or better	Su20: 95.8% (23 out of 24) F20: 88.9% (32 out of 36) S21: 100% (31 out of 31) Su21: 100% (13 out of 13) F21: 94.9% (37 out of 39) S22: 97.6% (42 out of 43)	No pedagogical changes are needed at this time.	Analyze the performance on lower scores and determine if clarity of instruction or feedback improves student performance
ESS 3500	Evidenced-based teaching	Students interpret the data and draw evidence/data supported conclusions in the lab reports.	Evaluation of the Lab reports: 80% or better	Su20: course not offered F20: 91.4% (32 out of 35) S21: 91.4% (32 out of 35) Su21: course not offered F21: 74.1% (20 out of 27) S22: 86.2% (25 out of 29)	No pedagogical changes are needed at this time. Low scores reflected in F21 and S22 are related to unofficial withdrawal of 2 and 3 students, respectively.	Analyze the performance on lower scores and determine if clarity of instruction or feedback improves student performance. Continue to work on student retention.
ESS 3510	Evidenced-based teaching	Students collect data, interpret results, and connect with appropriate physiological mechanisms in lab reports. Students learn	Evaluation of Lab reports (Cumulative Lab Report Grade Target B- or better)	Su20: N/A F20: 67.3% S21: 48.9% Su21: N/A	Pedagogical changes are in progress. Deficiency in writing skills has	Analyze the performance on lower scores and determine if further

		how to administer different exercise physiology testing procedures.	& Performance on laboratory practical: 80% or better	F21: 69% (25 out of 36) S22: 79% (31 out of 39)	been identified as a barrier to success. A lab report and figure template was created in addition to more detailed instructions. S21 and F21 are reflective of conducting labs via zoom during COVID.	clarity of instruction or feedback improves student performance.
ESS 3600	Project-based	Students work in small groups (3-5) to replicate a peer-reviewed research publication. Students review and critique the initial paper, then collect data, conduct statistical analysis, interpret results, and present findings to the class.	Group Project Presentation 80% or better	Su20: N/A F20: 96% S21: 100% Su21: N/A F21: 88% (15 out of 17) S22: 100% (18 out of 18)	No pedagogical changes are needed at this time.	Analyze the performance on lower scores and determine if clarity of instruction or feedback improves student performance.
ESS 4370	Project-based; Evidenced-based	Students complete two major projects: 1) they demonstrate evidenced based teaching practices by researching an assigned clinical disease topic and presenting their findings with focus on application to exercise testing and prescription, and 2) they complete a health appraisal and pre-participation assessment on a clinical population, interpret results, develop an exercise prescription plan, and develop a 3 month exercise program for this population.	overall course grade: 80% or better.	Su20: N/A F20: 91% (10 out of 11) S21: 100% (28 out of 28) Su21: N/A F21: 85% (11 out of 13) S22: 100% (13 out of 13)	No pedagogical changes are needed at this time.	Analyze the performance on lower scores and determine if clarity of instruction or feedback improves student performance.

ESS 4890	Internship	Students complete an instructor approved field experience/internship of their choice	Overall course grade: 80% or better	Su20: N/A course not offered due to COVID F20: 88% (7 out of 8) S21: 80% (8 out of 10) Su21: 100% (8 out of 8) F21: 75% (6 out of 8) S22: 100% (7 out of 7)	No pedagogical changes are needed at this time.	Analyze the performance on lower scores and determine if clarity of instruction or feedback improves student performance.
ESS 4990	Capstone	Students reflect on their academic careers and develop ePortfolio summarizing their knowledge, skills, and abilities.	Students' reflections and evaluation of the ePortfolio assignment: 80% or better	Su20: N/A F20: 77.8% (7 out of 9) S21: 95.8% (23 out of 24) Su21: N/A F21: 100% (11 out of 11) S22: 100% (13 out of 13)	No pedagogical changes are needed at this time. F20 lower score likely due to steeper learning curve using 'webpage based' portfolio. Scores improved with the introduction of portfolio.	Analyze the performance on lower scores and determine if clarity of instruction or feedback improves student performance.
NUTR 4520 (ESS 4800)	Research	Students complete a research project under the guidance of ESS faculty member.	Evaluation of the student research project summary, abstract, poster and/or oral presentation: 80% or better	Su20: 100 (2 out of 2) F20: 100% (2 out of 2) S21: 100% (1 out of 1) Su21: 100 (1 out of 1)	Starting 2020- 2021 academic year, students in the program were able to complete in research successfully under the guidance of the	Analyze the performance on lower scores and determine if clarity of instruction or feedback improves student performance.

				F22: N/A S22: 100% (1 out of 1)	program faculties.	
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Standard D - Academic Advising

The faculty and academic advisor of Exercise and Sports Science are strongly committed to assisting each of our students in a supportive and enriching advisement process that is the most effective for each independent student. Through the academic advising process, students are informed and provided opportunities that enhance their capacity to accomplish their desired degree and area emphases. In the Exercise and Nutrition Science (ENS) Department, student success is partly achieved by the open communication, plan development, and progress evaluations each student has with the Academic Advisor, our faculty, and the student themselves; creating an advising partnership that is informed, trusted, and effective. Students are informed that the responsibility of their successful completion of their programs lies in their hands; however, we are here to provide them with the necessary information and support for them to achieve their goals. To achieve this goal of student success, students are advised of program admission requirements, courses in the department that satisfy general education requirements, transfer articulation, student support services, and other pertinent information related to their individualized degree path. At this point, students are then encouraged to make thoughtful and meaningful decisions regarding their education goals to achieve their desired success.

Advising Strategy and Process

The ENS Department has two academic advisors who are focused on balancing students' needs and goals with faculty, program, and department expectations and standards. One of the two academic advisors specifically works with the Exercise and Sport Science (ESS) program. In collaboration with our academic advisor, we have continued evaluating and improving the advising strategy.

The current advisement process is as follows:

- new students attend new student orientation
- students schedule individual advisement sessions with the academic advisor
- students then may meet with faculty or the program director depending on their individual specific needs and goals.

Additionally, advising is integrated in our academic curriculum. Our academic advisor gives a presentation in all sections of the Exploring Exercise Science Professions (ESS 2200; the foundation course in the program) and meets with the students enrolled in this class individually for academic advising. This effort has facilitated our students to take an ownership of their academic progress. Our academic advisor guides students through academic program requirements, their degree maps, and assists in developing their semester schedule of courses. Ultimately, it is up to each student to be aware of their progress towards graduation and ensuring they register and complete the necessary courses to achieve their desired degree. When students meet with the academic advisor, together, they review their progress and the next steps needed to maintain this progress. The academic advisor will also follow up with students for encouragement and progress "check-ins" to assist those students who may need a little more support. The academic advisor also consults with program faculty, the Department Chair, and other programs, as necessary, to ensure open communication and unanimous agreement for special student circumstances requiring course overrides and exceptions while maintaining program and department policies, standards, and expectations.

The academic advisor has specific responsibilities (as does the student).

Advisor Responsibilities:

- Understand and effectively communicate the curriculum, graduation requirements and University policies and procedures.
- Assist students in understanding the purposes and goals of higher education and its effects on their lives and personal goals.
- Encourage and guide students as they define realistic academic goals.
- Support students as they acquire the skills to develop clear and attainable educational plans.
- Provide students with information about and strategies for utilizing the available resources and services on campus.
- Monitor and accurately document discussions regarding the student's progress toward meeting their goals.
- Maintain the level of confidentiality provided by the Buckley Amendment (FERPA).
- Assist students in gaining decision making skills and skills in assuming responsibility for their educational plans and achievements.
- Promote and encourage students to develop productive working relationships with their professors.
- Attend training and conferences related to advisement and WSU and attend department and program meetings.

Student Responsibilities: Students' responsibilities for the advising partnership to be successful include:

- Schedule regular advisement appointments each semester.
- Come prepared to each appointment with questions or materials for discussion; be an active learner by participating fully in the advising experience.
- Ask questions when necessary.
- Keep a personal record of graduation progress and goals including organizing official documents (academic records, communications from professors or the academic advisor—including emails, letters, and/or phone calls).
- Communicate academic goals.
- Become knowledgeable about University programs, policies and procedures.
- Be responsible for their decisions.
- Respond to official notification from the academic advisor (letters, emails, phone contacts, etc.) in a timely manner.
- Maintain effective working relationships with advisors, faculty and administrators.

Effectiveness of Advising

Our academic advisor has been working with the University since fall of 2018, and specifically with the ESS program in the 2019 – 2020 academic year when ESS joined Nutrition Education Program to become the Department of ENS. The nature of the advising partnership has been very positive. He is eager to correct errors when they are recognized, communicates openly with faculty and staff, make policy and procedural modifications that positively impact students and the programs involved, and maintains a set of ethics shared by all the members of the Department. He serves as the College's Pre-

Physical Therapy and pre-Occupational Therapy academic advisor and the College's Lead Academic Advisor. Working directly under the college dean, he facilitates new university-level initiative related to academic advising. He is highly effective in developing academic plans integrating the admission requirements for graduate education with the degree requirements of the program. The effectiveness of his advising is also facilitated by knowing students' interests by serving as the internship coordinator for the ESS program. Students majoring in ESS graduated in 3.62 to 4.45 years on average in the recent years, shorter than the average for the entire university. We are certain that effective advising has helped our students to complete their degrees in reasonable time. While we do not have formal data showing on our advisor's effectiveness, his effectiveness is evident in the student feedback as well as the recognition that he received (2021 ACES Award for Outstanding Staff, an institutional-level award).

Past Changes and Future Recommendations

As a program, we have established specific criteria for course waivers or overrides so that cases are treated fairly and consistently. While maintaining this consistency, we consider each student's unique circumstance individually. Our academic advisor has been keeping the lines of communication among all participating in advising decision-making open and knowledgeable. This has established the trust and enhanced the support of this critical relationship for student success.

Advisement will continue to be progressive: including using technology updates as a means to facilitate advisement and communication with students and adapting to meet student and faculty needs will be critical. Over the next year, the advising team at the university plan on producing data-driven retention initiatives designed to promote more proactive advisement: intervention specific to at-risk students will be offered to prevent a stop-out. Additionally, the university is transitioning to mandatory advising. This will likely facilitate better academic planning and mentorship for our students to be successful. Continued support of our academic advisor will be a priority as the importance of this position in assisting with student success cannot be understated.

Standard E - Faculty

Faculty Demographic Information

Currently, there are 4 faculty members, 4 tenure track, assistant-level faculty members. Our academic advisor also serves as the instructor for the internship and foundation courses. The program is also assisted by a part-time lab coordinator who is dedicated to the Exercise and Sport Science (ESS) Program. In addition to these ESS faculty/staff members, there are 5 additional faculty members (4 tenured/tenure track faculty and 1 full-time instructors) in the Department of Exercise and Nutrition Sciences (ENS) and 11 faculty members (9 tenured/tenure-track faculty members and xx full-time instructors) in the Department of Health, Physical Education and Recreation (HPER). Many (6) of these non-ESS, faculty members in Moyes College of Education teach courses contained in the ESS major. All but the instructors hold doctorate degrees (Ph.D.) from a variety of institutions in the U.S. There are several adjunct faculty members who teach ESS core or emphasis required courses and numerous other adjuncts who teach physical education activity courses that may be used to fulfill elective credit hours in either emphasis area. Additionally, many allied courses required for the ESS majors are taught by faculty of other programs outside of the College. Summary of current faculty who teaches courses in ESS are summarized in Appendix B.

Programmatic/Departmental Teaching Standards

The program faculty members are held to the Moyes College of Education teaching standards and policies and procedures for tenure and promotion (per the tenure document and PPM 8-11). The department chair reviews faculty in their second year. Peer review committee's review faculty according to policy in their second and fifth year. Department and college ranking tenure and evaluation committees review faculty in their third and sixth years, also according to policy. Instructors are evaluated yearly by the Department Chair.

Faculty's teaching schedules are determined by the department chair in consultation with the program director and faculty member. They are established based on the strengths of the faculty member, needs of the program, and performance factors. All courses taught by non-tenured faculty members and adjunct faculty are evaluated by students and compared to program and department standards and averages. Results include student commendations and recommendations. Numerical data based on a scale of one to five is interpreted and tracked by semester and over time. The student evaluation instrument has been consistently used for over ten years.

Faculty Qualifications

Each faculty member is highly qualified to teach in this program. A summary of the current (2022 - 2023) faculty who teach courses required by ESS majors is Appendix B. Adjunct faculty must meet the department minimum qualifications to teach in the department and program. This includes holding a master's degree.

Faculty Scholarship

Faculty members of Exercise and Sport Science regularly and actively engage in scholarly activity. Research projects are usually carried out in collaboration with students and faculty members within and outside the program and the department. ESS faculty regularly serve as a faculty mentor for students engaging in the projects funded by the Office of Undergraduate Research (OUR) and for students in the Athletic Training Master's Program in completing their thesis projects. Most of the research projects lead to a presentation at a professional conference and/or a research article in a scholarly journal. This scholarly effort has been well supported by institutional funding sources including Research, Scholarship, and Professional Growth Committee grants (RSPG), Academic Resources and Computing Committee (ARCC) grant, and Moyes College of Education Endowment grants to acquire instruments necessary for human performance analyses.

Mentoring Activities

Mentorship of students:

Students of Exercise Sport Science Program are mentored by the faculty members throughout their academic career. Normally, all program courses are taught by the full-time members of the program. Our foundation class, Exploring Exercise Science Professions (ESS 2200) not only gives an opportunity for the students to get to know the faculty member teaching the course, but it also introduces other members of the program (the faculty and the academic advisor) early in their academic career. We further facilitate interaction with the students through other courses taught by the program faculty and the staff. This allows us to get to know our students and to provide more effective mentorship. Some students receive additional mentorship through engaging in faculty-guided research projects and actively participating in the Exercise and Nutrition Science Club. The faculty of Exercise and Sport Science also provide guidance on the projects completed by the students of the Bachelor of Integrated Studies (BIS) as well as of the Master of Athletic Training (MSAT).

Mentorship of the program faculty:

Faculty members within the program are mentored by the department chair, program director, and other faculty within the ENS department and the Moyes College of Education. Adjunct instructors are mentored by a faculty member most familiar with the course taught by the adjunct.

Diversity of Faculty

The faculty during the last five-year review included 11 full-time faculty who teaches courses taken by ESS majors (in the Health and Human Performance Department, which ESS was part of), 7 are male, 4 are females, and one is Asian. Currently, 15 full-time faculty in the Exercise and Nutrition Science (ENS) and Health, Physical Education and Recreation departments (9 males, 6 females, 3 non-Caucasian) teach courses required for the ESS degree. The ENS department and ESS program have been able to bring diversity within the faculty (of 9 ENS full-time faculty, 5 are female, and 2 non-Caucasian). We continue to aspire to make our faculty diverse.

Ongoing Review and Professional Development

Department faculty members are reviewed according to the institutional Policies and Procedures Manual schedules. Adjunct faculty are evaluated annually via peer review and review of end of course evaluations. The typical schedule after hire as a tenure track assistant professor is:

- 2nd year: peer review of teaching by committee and Department Chair review
- 3rd Year: formal tenure rank and evaluation committee review
- 5th year: peer review of teaching by committee
- 6th Year: formal tenure rank and evaluation committee review
- if tenure and rank advancement was granted
- 11th year: eligible for full-professor promotion or post-tenure review
- Every five years: post-tenure review

Current Exercise and Sport Science faculty attend professional conferences each year. The primary one is the American College of Sports Medicine's Annual Meeting; however, these conferences vary based on the faculty member's expertise. Funding for attending conferences comes from several sources: the WSU Research, Scholarship, and Professional Growth Committee grants (RSPG), WSU College of Education Endowment grants, and WSU Department of Exercise and Nutrition Sciences travel funds. The faculty also regularly attend teaching workshops on campus sponsored by the Teaching and Learning Forum. As needed, the faculty also attend trainings offered through WSU Training Tracker.

Use and impact of high impact educational experiences

In 2020, WSU engaged in a strategic planning process. Once the new WSU strategic plan was established, the MCOE engaged in a strategic planning process. The MCOE strategic plan was finalized in 2021 and a Strategic Plan Taskforce was implemented in 2021-2022. The primary vision statement of the MCOE is "We aspire to prepare transformative professionals who positively impact society" with a supportive mission statement of "The Moyes College of Education prepares professionals for excellence in serving individuals and communities through meaningful relationships, inclusive culture, immersive learning opportunities, and creative advancement of knowledge."

The MCOE strategic plan taskforce established committees to work on actions items within the four strategic plan primary goals of: (1) Justice and Equity Foundation, (2) Personal Connections and Academic Excellence Ecosystem, (3) Community -University- Workforce Innovation Ecosystem, and (4) Recruitment, Retention, and Completion Outcome. An action item of "Provide each program graduate with two or more HIEE experiences" exists within the Personal Connections and Academic Excellence Ecosystem goal. A dedicated committee consisting of representation across each MCOE department worked for a year on this action item. The implementation task was to collect baseline data for all programs and to consider HIEE options for MCOE students. The performance measures were to identify one HIEE for students in each program to achieve in the first two years (in lower division courses) and to identify one HIEE for students to complete in years three to four (in upper division courses).

The committee first reviewed the literature on HIEEs then defined 26 common HIEEs to include in the program level review. The goal was to explore and determine teaching practices and/or experiences

that promote HIEEs within MCOE undergraduate programs. The committee surveyed the college for what HIEEs programs are currently using. Baseline HIEE data was collected for all programs. The HIEE's that already exist in programs and when they occur was identified. Google forms were created and sent it to each program director and department chair to complete with input from program faculty. The goal was to extract program data collected into lower and upper division courses and by HIEE types.

The 2021-2022 data was collected and analyzed with the findings summarized for the college by department and program. The results showed that MCOE programs do very well in incorporating a variety of HIEEs and many HIEEs in lower division and upper division courses. Overall, the MCOE, including the Exercise and Sport Science program, has met and exceeded its strategic planning goal. Table 6 below includes the data from this committee work for the ESS program.

The ENS department also has a strategic planning initiative to continue to focus on high impact educational experiences (HIEE). The ESS program currently requires internship experience for the fitness professional and highly encourages internships for exercise science students planning on entering specific disciplines such as physical therapy. The ESS program also offers directed undergraduate research and directed readings courses in addition to multiple HIEE across the program as shown in Table 6. In summary, the ESS program excels in providing multiple types of HIEEs in lower and upper division courses. Both concentrations of the ESS program meet and exceed established learning outcomes, goals, and metrics with HIEE with a focus on real-life application and career readiness. The program supports the institution, college, department, and program mission of providing multiple and various types of HIEEs across the curriculum beginning with the first 1-2 years of education. Future goals are to study and report on the impact of the HIEE by surveying students in ESS 4990 senior seminar and through academic advisement exit interviews. Further, faculty will work towards attaining more HIEE course designations in addition to the current INT (internship) designation for ESS 2890 and ESS 4890 and the CRE (course-based research experience) designation for ESS 4800 that was first applied in Spring 2022.

ESS Program	Exercise Science	Fitness Professional
LD # Courses	4	4
LD Courses	ESS 2200, ESS 2300, ESS 2890, NUTR 1020,	ESS 2200, ESS 2300, ESS 2890, NUTR 1020
LD # HIEE Types	5	5

LD HIEE Types	<i>5, 8, 10, 12, 14</i>	<i>5, 8, 10, 12, 14</i>
UD # Courses	10	10
UD Courses	ESS 3450, ESS 3500, ESS 3510, ESS 3600, ESS 4320, ESS 4370, ESS 4800, ESS 4830, ESS 4890. ESS 4990	ESS 3450, ESS 3500, ESS 3510, ESS 3600, ESS 4320, ESS 4370, ESS 4800, ESS 4830, ESS 4890. ESS 4990
UD # HIEE Types	10	12
UD HIEE Types	<i>1, 2, 5, 7, 8, 12, 14, 15, 20, 21</i>	<i>1, 2, 5, 7, 8, 12, 14, 15, 16, 18, 20, 21</i>
<i>Course Designation Key & HIEE Type Numerical Reference Key & ESS Use (in purple)</i>		

<p>LD: Lower Division, 1000 & 2000 courses</p> <p>UD: Upper Division, 3000 & 4000 courses</p>	<ol style="list-style-type: none"> 1. Capstone Course/Project 2. Collaborative Assignments & Projects 3. Community Engaged Learning 4. Diversity & Global Learning 5. Evidence-based Teaching Practices 6. First Year Experience 7. Honors 8. Internship/Field Experience 9. Learning Community 10. Peer Mentor Programs 11. Practicum/Supervised Teaching 12. Pre-professional/Career Development 13. Proactive Advising 14. Project-based Learning 15. Student Leadership 16. Student On-Campus Employment 17. Study Abroad/Away 18. Supplemental Instruction/Tutoring 19. Teaching Observation 20. Undergraduate Research 21. Writing Intensive Course
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Evidence of Effective Instruction

i. Regular Faculty

Results of end of course/instructor evaluations conducted on an online exam administration platform are included in each faculty member’s professional files kept in the College Dean’s office. Support files are stored in individual faculty member’s office in the Swenson Building, and end of course evaluation

results are housed on the online evaluation platform and electronically by the department. The minimum standard for tenure in the College of Education is GOOD instead of SATISFACTLY; therefore, all tenured faculty have demonstrated quality teaching, and tenure-track faculty are striving for this standard. Tenured faculty must also go under post-tenure review, which ensures continued teaching quality. Instructors are evaluated similarly, but they do not undergo the tenure and promotion evaluations.

ii. Adjunct Faculty

When adjunct faculty members are used to teach a course, they use a department approved course syllabus, follow the guidelines outlined in their semester teaching contract, have access to a college adjunct faculty handbook, undergo student and at times peer evaluation, and adopt standardized courses when applicable. The results of evaluations are housed in the department chair's office or through WSU secure department cloud document storage. From the results of ongoing review of faculty members, it can be surmised that the adjunct faculty are doing a good to excellent job in providing effective instruction.

Standard F – Program Support

Support Staff, Administration, Facilities, Equipment, and Library

Adequacy of Staff

The ENS Department supports each program, in part, through the staff within, and in relation to the Department. Within the ENS Department we have two Academic Advisors (exempt), Matthew Smith (ESS Academic Advisor/Internship Coordinator) and Heidi Costello (Nutrition Academic Advisor/Internship Coordinator), an Administrative Specialist (non-exempt), Marrisela Lopez, and our HP Lab Coordinator (Part-time; non-exempt), Anthony Ludwig. All of our staff are integral and vital members of our department and each are essential to the success of our programs.

Outside of the ENS Department, we receive staff support from many areas. The Stromberg Complex Manager, Matt Barker, ensures the classrooms, building, fields, and natatorium are appropriately scheduled and maintained for academic, scholarly, and community-based experiences. The College of Education College Recruitment and Marketing Coordinator, Lindsey Sweatland assists in recruiting students into each program as well as development of marketing materials, and the IT Service Manager, Paul Dykman provide supports for technologies used in teaching. We also have support from the College of Education Academic Advisor, Natalie Struhs, who leads the COE's Starfish notification and retention efforts.

As of Fall 2022, the needs of the ENS Department and their programs, are being adequately met with the number of staff support we employ. Each have completed university trainings and on the job training, to obtain the necessary KSA's and have been performing their job duties every effectively. All staff members in the department are performing in an exemplary manner in these critical positions. They are dedicated, insightful, and passionate staff who assist multiple programs both inside and outside of the ENS Department. They help to ensure high quality learning experiences, professional and academic opportunities, and quality of work and support are provided to our students, staff, and faculty for the department, College of Education, and all Weber State University levels.

i. Ongoing Staff Development

Department staff members have extended opportunities for WSU development including travel to appropriate professional conferences, financial support for professional membership organizations, WSU specific trainings through training tracker, and enrollment in WSU courses. Staff members participate in trainings and other professional development practices dependent on their job duties, interests, and opportunities to enhance our programs and Department.

Adequacy of Administrative Support

Since our last Program Review (2018) we have converted a full-time Human Performance Lab Coordinator to a part-time (0.5 FTE) in order to add a much-needed full-time faculty to the program. This has resulted in limited assistance to manage the Human Performance Lab operations and to lab-based instructions. We hope to make this position a full-time position not only to help the lab operation, but also to prevent frequent turnover. The ESS Program and the ENS Department receives great support from the Dean and the Provost when requested or necessary. For example, paying for additional necessary courses/overloads (semester dependent) has been well-assisted.

Adequacy of Facilities and Equipment

The ENS Department is housed in the Swenson Building within the Stromberg Complex. The facility provides adequate classrooms, laboratories, and equipment to support the program. The Human Performance Lab and the Biomechanics Lab are equipped with instruments that are comparable to those at research-intensive institutions. Our students benefit from hands-on laboratory experience using these instruments. In addition, the Human Performance Lab is scheduled for renovation in the summer of 2023 to separate the instruction/classroom space from the lab space (where the instruments are kept) to facilitate better use of the space and the productivity.

Faculty members along with some staff members and at times in collaboration with other Departments across WSU write research grants for equipment needed for teaching and research. Funds are usually secured for these excellent proposals.

Adequacy of Library Resources

The Stewart Library provides information resources and services on multiple WSU campuses. Print, electronic including databases, and audio-visual materials are provided in adequate titles. The library also rent out technology equipment including laptop computers and webcams on per-semester basis. Additionally, they offer reservable group study rooms for students and houses a testing center where student can take an online-based exams. Hours of operation are extensive and met student and faculty needs. The library website (<http://library.weber.edu>) assists with meeting 24/7 needs. The library assigns a librarian to each college (Shaun Adamson, PhD). The librarian has an annual budget to provide current resources for the program. Additionally, the librarian meets faculty classes when invited in scheduled teaching rooms within the library, creates a Exercise and Sport Science-specific library guide (Libguide) and provides additional electronic resources for specific classes taught when requested. The resources adequately met the program, faculty, and student needs. When a resource is not in the library, the interlibrary loan process enables access to most materials.

Standard G - Relationships with External Communities

Description of Role in External Communities

Department and program faculty and staff build and maintain relationships with external communities in multiple ways. Connection with the external community relies in part on relationships cultivated between individual faculty members and local businesses, hospitals/clinics, and government facilities, such as city and county parks and recreation departments, and county health departments. The on-going partnerships is primarily through our internship programs facilitated by our academic advisor/internship coordinator.

Exercise and Sport Science with Fitness Profession emphasis completes minimum of 2 internships (minimum of 5 credits; 300 contact hours/credit hour). The Exercise Science emphasis has an option of completing internship as an elective. The ESS Internship Coordinator serves as the course instructor

for the internship class and ensures that students choose appropriate internships, submit signed contracts, evaluates the students' progress, and complete the required reports and evaluations.

Summary of External Advisory Committee Minutes

Not Applicable: The Exercise and Sport Science Program currently does not have a formal external advisory committee. However, the program seeks and utilizes ongoing feedback received from external community members via its academic internship program.

Community and graduate Success

Our community partners are integral part of our graduates' success. Experience that our students gain through internship 1) give a realistic idea of the profession for students in early academic career and 2) provides a 'safe' environment for more advance students to apply information learned in the classroom into practice. Students become more prepared and confident with skills, and this has helped them to obtain a job or to be admitted to a graduate program.

Standard H – Program Summary

Results of Previous Program Reviews

Problem Identified	Action to Be Taken
<u>Issue 1: STANDARD B - CURRICULUM</u> High faculty workload. Not enough instructive resource was allocated. The entire program was managed by 2 full-time faculty.	Previous 5 Year Program Review:
	Year 1 Action Taken:
	Year 2 Action Taken: Addition of a tenure-track faculty (3 rd full-time in the program) has helped distribute the workload.
	Year 3 Action Taken:
	Year 4 Action Taken: Addition of a tenure-track faculty (4 th full-time in the program) has helped distribute the workload.
<u>Issue 2: STANDARD B - CURRICULUM</u> Courses to support the major program was offered on a regular basis, but number of seats may not allow students to graduate in a timely manner.	Previous 5 Year Program Review:
	Year 1 Action Taken:
	Year 2 Action Taken: With an additional program faculty, more sections of bottleneck courses have been offered. The time to graduation has improved.
	Year 3 Action Taken:
	Year 4 Action Taken: With an additional program faculty allowed to offer additional sections of program courses. This improved sequencing of the courses taken by the majors.
<u>Issue 4: STANDARD D – STUDENT LEARNING OUTCOMES & ASSESSMENT</u> Program outcomes have been established, but not enough data on program student learning outcomes	Previous 5 Year Program Review:
	Year 1 Action Taken: The program continued gathering the learning outcome data.
	Year 2 Action Taken: The program continued gathering the learning outcome data. More measures were added to assess the program learning outcomes more comprehensively.

	Year 3 Action Taken: The program continued gathering the learning outcome data.
	Year 4 Action Taken: The program continued gathering the learning outcome data.
<u>Issue 5: STANDARD E- FACULTY</u> The number of full-time faculty in relation to number of majors/courses was not ideal. Considerable load of responsibility was placed on the program director. If the program is seeking faculty retention and program growth, additional faculty were necessary.	Previous 5 Year Program Review:
	Year 1 Action Taken:
	Year 2 Action Taken: Addition of a tenure-track faculty (3 rd full-time in the program) has helped distribute the workload and to offer additional sections of the program courses.
	Year 3 Action Taken:
	Year 4 Action Taken: Addition of a tenure-track faculty (4 th full-time in the program) has helped distribute the workload and to offer additional sections of the program courses.
<u>Issue 6: STANDARD E- FACULTY</u> The program does not utilize adjunct faculty, but this should be explored.	Previous 5 Year Program Review:
	Year 1 Action Taken:
	Year 2 Action Taken: The program utilized a few adjunct faculty when needed. However, we prefer the program courses to be taught by the program faculty to maintain a strong instructor-student connection and continuity of instruction throughout the curriculum, which was highly valued by our graduates.
	Year 3 Action Taken: The program utilized adjunct faculty, who were staff members of the program well-qualified to teach the subject matter.
	Year 4 Action Taken: The program continued utilizing adjunct faculty, who were staff members of the program well-qualified to teach the subject matter.
<u>Issue 7: STANDARD G- RELATIONSHIP WITH EXTERNAL COMMUNITIES</u>	Previous 5 Year Program Review:
	Year 1 Action Taken:

THE ESS program did not have an established external advisory program.	New internship coordinator started to periodic feedback from the internship sites.
	Year 2 Action Taken: Continue receiving feedback from the internship sites.
	Year 3 Action Taken: Continue receiving feedback from the internship sites.
	Year 4 Action Taken: Continue receiving feedback from the internship sites. The program will consider establishing a formal external advisory committee in the near future (it has not been established due to limited personnel resources).

Summary Information

Since the last program review, the ESS program was able to add 2 full-time, tenure-track faculty members. This was possible because of the support and creativity of the previous Department Chair, current Dean of the College, and the Provost. These additional faculty members with their areas of expertise allowed not only to offer additional sections of the courses in the program, but also to improve effectiveness of instruction and to offer additional course delivery options. Consequently, the ESS courses include more diverse students, non-local and non-traditional students. The workload of the program faculty has become more reasonable, and smaller class sized has facilitated better student-instructor interactions.

Action Plan for Ongoing Assessment Based on Current Self Study Findings

Action Plan for Evidence of Learning Related Findings

Problem Identified	Action Taken	Progress
Issue 1: Program learning outcomes are not aligned well with the competencies established by the accreditation bodies that the program plans on seeking.	Current 5 Year Program Review:	
	Year 1 Action To Be Taken:	Establish new program-level student learning outcomes that align with competencies identified by the accreditation bodies.
	Year 2 Action to Be Taken:	Seek CASCE and CoAES accreditations.
	Year 3 Action To Be Taken:	
	Year 4 Action To Be Taken:	
Issue 2: Sustainable mechanism to assess the learning outcomes aligned with the competencies established by the accreditation bodies that the program plans on seeking.	Current 5 Year Program Review:	
	Year 1 Action To Be Taken:	Complete the curriculum grid to align the competencies with the courses and identify the artifacts to gather outcome data.
	Year 2 Action To Be Taken:	Start gathering the learning outcome data.
	Year 3 Action To Be Taken:	Continue gathering the learning outcome data.
	Year 4 Action To Be taken:	Continue gathering the learning outcome data.
Issue 3: Students are not confident in knowledge and skills in certain competencies (facility management and	Current 5 Year Program Review:	
	Year 1 Action To Be Taken:	Make course-level adjustments to facilitate attainment of the skills and students' confidence in these competencies.

assessments and exercise programing for diseased population)	Year 2 Action To Be Taken:	Start offering new courses focusing on these competency areas.
	Year 3 Action To Be Taken:	Continue assessing the course effectiveness of new courses.
	Year 4 Action To Be taken:	Continue assessing the course effectiveness of new courses.

Summary Information

We have been aware of concerns related to our curriculum and the need to update to meet the most current standards of exercise science education. We have made small efforts to improve at individual course level as making more significant, program-level changes could not be made due to the limited resources. The issues identified above could be best addressed systemically as we update the curriculum to align with the competencies established by the Council on Accreditation of Strength and Conditioning Education (CASCE) and the Accreditation for the Exercise Sciences (CoAES), two accreditations that the program plan to pursue. The curriculum updates as well as application for accreditations was originally scheduled for Summer/Fall 2022. However, this process was postponed until the summer/fall of 2023 due to the program’s limited personnel resources and unexpected turnovers of the program faculty.

Action Plan for Staff, Administration, or Budgetary Findings

Problem Identified	Action to Be Taken
<p>Issue 1: STAFF The Human Performance Lab Coordinator being 0.5 FTE limits the assistance needed to operate the laboratory. This could result in higher turnover.</p>	Current 5 Year Program Review:
	Year 1 Action to Be Taken: Establish student intern positions to support the HP Lab Coordinator. Prioritize HP lab coordinator time on exercise science program needs.
	Year 2 Action to Be Taken: Explore the option of making this position full-time (Staff with teaching responsibility).
	Year 3 Action to Be Taken: Create a permanent full-time position merging the HP lab coordinator and Nutrition lab coordinator positions.
	Year 4 Action to Be Taken: Have multiple student interns helping with the lab set up and experiments.

Summary Information

The demands for the ESS program have been consistently increasing primarily due to 1) increase in enrollment in the program and its courses and 2) growing interests in conducting research and community engagement projects utilizing the expertise and resources available in the program. Especially with the curriculum updates mentioned in the previous section, the program needs additional resources to operate effectively.

APPENDICES

Appendix A: Student and Faculty Statistical Summary

(Note: Data provided by Institutional Effectiveness. This is an extract from the Program Review Dashboard and shows what will be sent to the Boards of Trustees and Regents)

Exercise and Sport Science	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 22
Department Student Credit Hours Total ¹	9,212	9,118	8,379	8,748	8,652
Exercise and Sport Science SCH	1,452	1,352	1,439	1,558	1,613
MSAT SCH	888	764	0	0	0
Nutrition SCH	6,872	7,002	6,940	7,190	7,039
Department Student FTE Total ²	321.9	316.7	279.3	291.6	288.4
Exercise and Sport Science FTE	48.4	45.1	48.0	51.9	53.8
MSAT FTE	44.4	38.2	0.0	0.0	0.0
Nutrition FTE	229.1	233.4	231.3	239.7	234.6
Student Majors ³ (ESS Only)	164	197	216	209	260
Second Major or Concentration	29	39	37	27	34
Minors	0	0	0	0	0
Program Graduates ⁴ (ESS Only)					
Associate Degree	0	0	0	0	0
Bachelor Degree	30	26	32	31	36
Student Demographic Profile ⁵ (ESS Only)					
Female	80	83	95	85	114
Male	84	114	121	124	146
Faculty FTE Total ⁶ (Department: Includes AT and NUTR for FY 18 then ENS for 19, 20, and 21)	19.1	18.7	13.8	13.8	N/A
Adjunct FTE	10.6	10.2	7.5	7.3	N/A
Contract FTE	8.5	8.5	6.3	6.4	N/A
Student/Faculty Ratio ⁷ (Department)	16.8	16.9	20.2	21.2	N/A

Notes

1. Due to college restructuring and departmental changes, these data are our best reflection of actual departmental/program counts.
 2. Student Credit Hours Total represents the total department-related credit hours for all students per academic year. Includes only students reported in Banner system as registered for credit at the time of data downloads.
 3. Student FTE Total is the Student Credit Hours Total divided by 30 for undergraduate and by 20 for graduate.
 4. Student Majors is a snapshot taken from self-report data by students in their Banner profile as of the third week of the Fall term for the academic year. Only 1st majors count for official reporting.
 5. Program Graduates includes only those students who completed all graduation requirements by end of Spring semester for the academic year of interest. Students who do not meet this requirement are included in the academic year in which all requirements are met. Summer is the first term in each academic year.
 6. Student Demographic Profile is data retrieved from the Banner system.
 7. Faculty FTE is the aggregate of contract and adjunct instructors during the fiscal year. Contract FTE includes instructional-related services done by "salaried" employees as part of their contractual commitments. Adjunct FTE includes instructional-related wages that are considered temporary or part-time basis. Adjunct wages include services provided at the Davis campus, along with on-line and Continuing Education courses.
- Student/Faculty Ratio is the Student FTE Total divided by the Faculty FTE Total.

Appendix B:

Faculty & Staff (current academic year)

ESS-Based Courses

	Tenure	Contract	Adjunct
Number of faculty with Doctoral degrees	4		
Number of faculty with Master's degrees		1*	
Number of faculty with Bachelor's degrees			
Other Faculty			
Total	4	1	

*The academic advisor teaching internship (ESS 2890; ESS 4890) and foundation (ESS 2200) courses.

Allied Courses in College

	Tenure	Contract	Adjunct
Number of faculty with Doctoral degrees	10		
Number of faculty with Master's degrees		1	
Number of faculty with Bachelor's degrees			
Other Faculty			
Total	10	1	

Contract/Adjunct Faculty Profile

Current ESS Faculty Members/Rank:

Name	Gender	Ethnicity	Rank	Tenure Status	Highest Degree	Years of Teaching	Areas of Expertise
Saori Hanaki	Female	Asian	Assistant	Tenure Track	PhD	5 (WSU) 11 total	Exercise Science; Biomechanics ESS 2200; ESS 3450; ESS 3500; ESS 4800; ESS 4990
Stacie Wing-Gaia	Female	Caucasian	Assistant	Tenure Track	PhD	4 (WSU) 21 total	Exercise Science; Exercise Physiology; Nutrition

							ESS 2200; ESS 2300; ESS 4370; ESS 4800; NUTR 3020, NUTR 2020
Bryan Dowdell	Male	Caucasian	Assistant	Tenure Track	PhD	1 (WSU) 2	Exercise Science; Exercise Physiology ESS 2200; ESS 3510; ESS 4370; ESS 4800; ESS 4990
Sachini Kodithuwakku Arachchige	Female	Asian	Assistant	Tenure Track	MD, PhD	1 st year (WSU)	Exercise Science; Biomechanics; Medicine ESS 3450; ESS 3600; ESS 4800
Matthew Smith	Male	Caucasian	Adjunct	Contract/Instructor	MPA	3 (WSU) 3 total	Academic advising ESS 2200; ESS 2890; ESS 4890

ESS Major Support Course Full-Time Faculty* Members/Rank:

Name	Gender	Ethnicity	Rank	Tenure Status	Highest Degree	Years of Teaching	Areas of Expertise
Christopher Eisenbarth	Male	Caucasian	Professor	Tenured	PhD	15 (WSU) 24 (total)	Health Promotion HLTH 3000
Jennifer Turley	Female	Caucasian	Professor	Tenured	PhD	25 (WSU)	Nutrition NUTR 2320; NUTR 4320
Rodney Hansen	Male	Caucasian	Professor	Tenured	PhD	18 (WSU)	Nutrition NUTR 4320; NUTR 4420
James Zagrodnik	Male	Caucasian	Professor	Tenured	PhD	11 (WSU)	Physical Education; Motor Learning PEP 3100
Chad Smith	Male	Caucasian	Associate	Tenured	PhD	10 (WSU)	Physical Education; Coaching

							PEP 3280; PEP 3400
David Aguilar-Alvarez	Male	Caucasian	Associate	Tenured	PhD	7 (WSU)	Nutrition NUTR 2320; NUTR 4320
Ryan Zimmerman	Male	Caucasian	Associate	Tenured	PhD	6 (WSU)	Physical Education; Coaching PEP 3280
Linnette Wong	Female	Asian	Assistant	Tenure Track	PhD	5 (WSU) 7 Total	Health Promotion HLTH3200
Damon Joyner	Male	Caucasian	Assistant	Tenure Track	PhD	4 (WSU)	Nutrition NUTR 2320; NUTR 3020
Jamie Stein	Female	Caucasian	Instructor	Non-Tenure Track	MS	1 (WSU)	Nutrition NUTR 2320
Kurt Ward	Male	Caucasian	Instructor	Non-Tenure Track	PhD	1 (WSU)	Physical Education; Coaching PEP 3280

*Courses taught by non-ESS program, College of Education faculty, but fulfill degree requirements for ESS major.

Adjunct Faculty for ESS Required Core Course (RHS 2300):

Name	Gender	Ethnicity	Rank	Highest Degree	Years Teaching	Areas of Expertise
Joel Bass	Male	Caucasian	Adjunct	MS, EMT	30 – WSU 33 - Total	Emergency Medical Response; RHS 2300
Lester Stone	Male	Caucasian	Adjunct	BS, EMT	15 – WSU 15 – Total	Emergency Medical Response; RHS 2300

Summary Information

During the current review period, the number of the program faculty increased from 2 to 4. This increased instructional resource has allowed the program to offer greater number of courses that has helped to improve the graduation time of the majors. This increase in the number of full-time faculty, however, the Human Performance Lab Coordinator position was reduced from 1.0 FET to 0.5 FTE.

Appendix C: Staff Profile

Name	Job Title	Years of Employment	Areas of Expertise
Matthew Smith	Academic Advisor/Internship Coordinator	4	Provides student advisement using knowledge of program, department degree requirements, graduate/professional schools admission requirements, referral to the program/department faculty and WSU entities. Uses WSU systems for data tracking/management, awarding scholarships. Coordinates, implements, organizes and balances daily operations and office functions of department related to internships, corporative work experiences, and clinical sites. Teaches the program's foundation course (ESS 2200).
Anthony Ludwig	Human Performance Lab Coordinator	1	Operates the Human Performance Lab by maintaining the equipment, purchasing expendables. Assists laboratory-based courses and research projects within the program.
Marrisela Lopez	Administrative Specialist	1	Manages the budget, purchases supplies for department, enters class schedules, prepare documents, performs general office management including time-keeping hourly student workers. Uses WSU systems to track/manage enrollment and budget data.

Appendix D: Financial Analysis Summary
 (This information was provided by the Office of Institutional Effectiveness)

Exercise and Nutrition Sciences (Includes MSAT for FY 18 and 19)					
Funding	17-18	18-19	19-20	20-21	21-22
Appropriated Fund	1,162,643	1,197,554	963,668	978,023	867,724
Other: IW Funding from CE	168,865	179,620	203,273	223,773	215,783
Special Legislative Appropriation					
Grants or Contracts					
Special Fees/Differential Tuition	69,354	42,665	57,042	32,620	50,325
Total	1,400,862	1,419,839	1,223,983	1,234,416	1,133,832
Student FTE Total	321.87	316.67	279.30	291.60	288.40
Cost per FTE	4352.31	4483.70	4382.32	4233.25	3931.46

Appendix E: External Community Involvement Names and Organizations

Name	Organization
Clark Madsen, MD, MS	McKay Dee Hospital – Family and Sports Medicine Program
Clairese Miljour – Operation Manager	GOAL Foundation
Micaela Karlsen – Research Director	American College of Lifestyle Medicine
Sai Das – Senior Researcher	Tufts University – Human Nutrition Research Center for Aging
Sports and Human Performance Nutrition subgroup	Academy of Nutrition and Dietetics
A list of ESS Internship Sites (currently 50 sites) are found here.	

Appendix F: Site Visit Team (both internal and external members)

Name	Position	Affiliation
Conrad Gabler, PhD	Associate Professor, Department of Athletic Training	Weber State University
Kathleen Carter, PhD	Associate Professor, Exercise Science, College of Engineering, Science Technology, Agriculture	Central State University (Ohio)

Appendix G: Evidence of Learning Courses within the Major

The summary tables of leaning outcomes are included in the Five-Year Assessment Summary section.

Appendix H: sample Signature Assignments

Not Applicable (No general education courses are offered in the program)