



School of Exercise & Nutritional Sciences

## GRADUATE STUDIES 2022-2023

"The School of Exercise and Nutritional Sciences is a community of faculty, students, and staff who promote health and fitness as well as the rehabilitation of those with injury, illness, disease, or disability. It seeks to serve as a nationally recognized center for professional and academic training within an environment that emphasizes scientific inquiry, discovery, and application. To do so, the school aims to provide high quality, innovative education to graduate and undergraduate students in exercise, nutrition, and rehabilitation sciences. We strive to create a generation of leaders who contribute to the health, well-being, and rehabilitation of local, national, and international communities."



### Application Procedures & Deadlines

**Fall 2022** admission application opens **October 1, 2021** (no spring admission)

1. Submit the California State University Online Application available via [Cal State Apply](#) by **December 15, 2021**.  
Application fee: \$70. ENS master's degree program applicants will then be directed to the School of ENS Interfolio application. Athletic Training program applicants only will be directed to the [ATCAS](https://atcas.liaisoncas.com/applicant-ux/#/login) application. <https://atcas.liaisoncas.com/applicant-ux/#/login>.
2. GRE scores are not required for admission.  
If you choose to submit GRE scores, official test scores should be sent to SDSU by **January 12, 2022**.  
SDSU institution code: 4682  
TOEFL scores (if applicable) should be sent directly using the SDSU institution code
3. Send official transcripts to **SDSU Enrollment Services** (see address below) by **January 12, 2022**. Applicants must send one set of official transcripts from all institutions attended (except SDSU, if applicable).
4. Submit the SDSU ENS [Interfolio](#) application by **January 12, 2022**.
  - Unofficial copies of bachelor's degree transcripts and any transcripts where prerequisite coursework was taken.
  - International students are required to submit TOEFL test scores.
  - Name and email address of two references who will be invited to complete a recommendation electronically.
  - Personal statement of your background, research interests/experiences, and professional goals.
  - Prerequisite grade sheet, available in the Interfolio application and on the ENS website.
  - Optional materials indicated via SDSU ENS prompt.
5. For Athletic Training applicants only, submit the ATCAS application by **January 12, 2022** (do not submit application via Interfolio).
  - For Athletic Training, see program application prerequisites on SDSU Athletic Training program website. <https://ens.sdsu.edu/athletic-training/admissions/>.

#### ENS Graduate Advising

#### ENS Graduate Advisor

Suzanne Meredith, BS

#### Current advising hours:

<http://ens.sdsu.edu/student-resources/advising/meet-your-adviser/>

ENS 357

[ensgrad@sdsu.edu](mailto:ensgrad@sdsu.edu)

#### SDSU Enrollment Services

Graduate Admissions Document Processing Unit

5500 Campanile Drive

San Diego, CA 92182-7416

#### Graduate Advising

SDSU School of Exercise & Nutritional Sciences, Room 357

5500 Campanile Drive

San Diego, CA 92182-7251

619-594-5979



## Meet Our Faculty

**Harsimran Baweja**, Ph.D., Associate Professor  
University of Florida

*Teaching areas:* Neuroscience, Cardiopulmonary Therapeutics  
*Research interests:* Neurophysiology of aging and Parkinson's disease with cognitive impairment, driving competence, mechanisms for neuroplasticity using virtual reality

**Surabhi Bhutani**, Ph.D., Assistant Professor  
University of Illinois

*Teaching areas:* Nutrition throughout the lifespan  
*Research interests:* Appetite and Eating Behavior, Odor Perception, Food Choices, Body Composition, Energy Balance, Obesity, and Neuroimaging

**Michael Buono**, Ph.D., Professor  
University of Arizona

*Teaching areas:* Human Physiology, Pathophysiology  
*Research interests:* Environmental physiology, thermoregulation, exercise biochemistry

**Daniel Cannon**, Ph.D., Associate Professor  
University of Leeds (UK)

*Teaching areas:* Pathophysiology, Exercise Physiology  
*Research interests:* Exercise intolerance, skeletal muscle abnormalities in cardiopulmonary disease

**Antoinette Domingo**, Ph.D., Associate Professor  
University of Michigan

*Teaching areas:* Neuro-biomechanical Relationships, Geriatrics  
*Research interests:* Locomotor rehabilitation, rehabilitation robotics motor learning, and control of balance & gait after neurological

**Sara Gombatto**, Ph.D., P.T., Associate Professor  
Washington University, St. Louis

*Teaching areas:* Evidence-based Practice  
*Research interests:* Mechanisms underlying musculoskeletal pain, low back pain, sports biomechanics, 3D motion capture, mobile sensor technologies, MRI

**Mee Young Hong**, Ph.D., R.D.N., Professor  
Texas A&M University

*Teaching areas:* Advanced Nutrition laboratory, Child Nutrition  
*Research interests:* Nutrition (dietary fat and phytochemicals) effects on inflammation, CVD & cancer

**Shirin Hooshmand**, Ph.D., Professor  
Florida State University

*Teaching areas:* Advanced Nutrition, Geriatric Nutrition  
*Research interests:* Functional foods, bone, osteoporosis, and osteoarthritis

**David Kahan**, Ph.D., Associate Director and Professor  
The Ohio State University

*Teaching areas:* Curriculum and Development, Physical Education and Physical Activity  
*Research interests:* Religious/ethnic minorities' barriers and facilitators to physical activity, school-based interventions on physical activity, physical activity policy

**Mark Kern**, Ph.D., R.D., Professor  
Purdue University

*Teaching areas:* Nutrition for Athletes, Nutrition and Energy, Advanced Seminar in Nutrition  
*Research interests:* Exercise and nutrition, nutrition, and chronic disease

**Jochen Kressler**, Ph.D., Associate Professor  
University of Miami

*Teaching areas:* Pathophysiology, Exercise Physiology  
*Research interests:* Cardiovascular and metabolic adaptations with exercise and nutritional manipulations

**Changqi Liu**, Ph.D., Associate Professor  
Florida State University

*Teaching areas:* Advanced Food Science, Experimental Food Science  
*Research interests:* Food allergy, novel food source, functional food

**Matthew Mahar**, Ed.D., School Director and Professor  
University of Houston

*Research interests:* Physical activity and fitness in youth, assessment of physical activity, physical activity promotion across the lifespan, youth fitness testing, school-based physical activity related to on-task behavior, and cognitive function

**Katrina Maluf**, Ph.D., P.T., Professor  
Washington University, St. Louis

*Teaching areas:* Clinical reasoning, psychosocial aspects of rehabilitation  
*Research interests:* Chronic pain, psychosocial stress, motor control & rehabilitation

**Amanda C. McClain**, Ph.D., Assistant Professor  
Cornell University

*Teaching areas:* Nutrition counseling, Nutrition and Physical Activity Behavior change, Community Nutrition, and Health Promotion  
*Research Interests:* Social, cultural and life course influences on food security, diet behaviors, quality and cardiometabolic health, capacity-based interventions to improve food security

**Shawn O'Connor**, Ph.D., Assistant Professor  
University of Michigan

*Teaching areas:* Biomechanics of Human Movement  
*Research interests:* Biomechanics and energetics of locomotion: balance, metabolic cost, muscle

**Mitchell J. Rauh**, Ph.D., M.P.H., Professor and DPT Director  
University of Washington

*Teaching areas:* Evidence Based Practice, Musculoskeletal Therapeutics/ Orthopedics, Cardiopulmonary Therapeutics  
*Research interests:* Running injuries, Female Athlete Triad, sports injury epidemiology, functional-based tests for clinical assessment

**Michelle Rawlins**, Ph.D., ATC., Assistant Professor  
University of Georgia

*Teaching areas:* Evidence-based practice  
*Research interests:* Concussion care-seeking behavior in athletes and military personnel, concussion educational interventions, medical disqualification following concussion

**Sasha Reschechtko**, Ph.D., Assistant Professor  
Pennsylvania State University

*Teaching areas:* Movement neuroscience; motor control, performance, and learning.  
*Research interests:* Neural control of movement, sensorimotor neuroscience, ecological hand use, movement-based assessment of sensory function

**Lori Tuttle**, Ph.D., P.T., Professor  
Washington University, St. Louis

*Teaching areas:* Case Presentations, Medical Therapeutics in Physical Therapy  
*Research interests:* Women's health, pelvic floor muscle function

## **Frequently Asked Questions**

### **What type of degree do I need to apply for the MS degree?**

Bachelor of Science or Bachelor of Arts, although it does not need to be in related field as long as all prerequisite courses are completed.

### **Do I have to finish all prerequisite courses listed before admission to the degree program?**

Priority consideration will be given to those students with all prerequisites fulfilled. Students not meeting all prerequisites can be recommended for conditional admission by approval of the faculty; however, all prerequisites must be completed in the first year of graduate study. Students lacking any prerequisites noted with an asterisk by the start of the program will not be accepted on a conditional basis.

### **How do I know if the classes I've taken count as prerequisites or not?**

If you are currently attending a university and believe you have fulfilled the prerequisite courses, you will need to send an email to the ENS Graduate Advising office containing the name of the school, course name, credit hours, any prerequisites for the course, and course description from the syllabus or catalog, and which prerequisite you believe it meets. To check for equivalent courses, you can use [www.assist.org](http://www.assist.org) for community college courses taken in California or [SDSU\\_TAP](http://SDSU_TAP) for courses taken at institutions within and outside of California. If you cannot find your school, we can evaluate it via email as noted above. We will not evaluate complete transcripts.

### **What is the minimum GPA to apply?**

3.0 overall or in last 60 units of bachelor's coursework.

### **The GRE will not be required this academic year. If it becomes reinstated, the minimum GRE scores you need to apply are:**

Verbal score  $\geq 151$  (or 475 for old test) and Quantitative score  $\geq 142$  (or 475 for old test).

The writing section must also be completed and may be considered for applicant writing potential in the program.

### **How recent must my GRE scores be?**

GRE scores do not expire. Hard copies of official scores can also be accepted if scores are not available in an online format.

### **What if I'm a foreign applicant?**

A TOEFL  $\geq 550$  paper test (or 213 computer test) is required. The minimum score for iBT is 80 (or 550 for paper test). Scores must be no more than two years old. Questions regarding international student admission should be directed to [intl\\_admissions@sdsu.edu](mailto:intl_admissions@sdsu.edu). For more information, please visit <http://www.isc.sdsu.edu/>.

### **Who has to take the TOEFL?**

All graduate and post-baccalaureate applicants, regardless of citizenship, whose native language is not English and whose preparatory education was principally in a language other than English, must demonstrate English competency. Those applicants who do not possess a bachelor's degree from a post-secondary institution where English is the principal language of instruction must submit official TOEFL or IELTS results.

### **Do California residents get admission preference?**

Yes, San Diego State University is a State school, so slight preference is given to residents of California. However, California residents do not receive automatic acceptance. Admission to ENS master's programs is competitive, and all completed applications are evaluated.

Consequently, many out-of-state students receive admission into our programs. The most competitive applicants are offered admission.

### **How is my residency status determined?**

California residency of graduate students is in accordance with the regulations of the Board of Regents and the laws of the State of California. A full statement of the regulations is available in the SDSU Graduate Bulletin. Out-of-state residents must pay the out-of-state graduate student tuition rate. Please visit <http://arweb.sdsu.edu/es/registrar/residency.html> for more information on residency classification for tuition purposes.

### **Who writes my letters of recommendation, and is there a form he/she needs to fill out?**

Letters can be from professionals in academic or professional areas. You will be prompted to provide the names and email addresses of two recommenders on the SDSU ENS Interfolio application. Recommenders will receive an email prompt to upload letters. For Athletic Training, names and email addresses of three references (one academic and one clinical) will be invited to complete a recommendation for the applicant electronically via ATCAS.

### **What should I include in my Statement of Purpose? How long should it be?**

Statements should be 1-2 pages describing your background, research interests/experiences, and goals relevant to the degree sought. The Statement of Purpose used for admission decisions should be uploaded to the SDSU ENS Interfolio application. While you may include your Statement of Purpose in your Cal State Apply application, you have the option to indicate in that section of the Cal State Apply application: "Statement sent/to be sent directly to the department via ENS supplemental application." For Athletic Training, a professional essay of 400-500 words, including the student's professional goals and reasons for selecting athletic training as a career should be uploaded to ATCAS.

### **When will I know if I'm accepted?**

Admission decisions will appear on your Web Portal account in the weeks following the deadline. Email acceptance notifications will be sent by the School of ENS beginning in March. For the athletic training program, acceptance notifications will be sent by the program.

### **If I'm accepted, when would I begin my master's coursework in the program?**

The program starts in the Fall of the year in which you were offered an acceptance. Acceptance cannot be deferred for a later start. Applicants unable to start in the Fall of the year they are accepted must reapply to the program if interested in a later program start. Athletic Training students start the program in Summer Session I.

### **Are GA (Graduate Assistantships) or TA (Teaching Associateships) available?**

Yes, ~15 GA/TA positions are awarded per semester to current and incoming students. Positions generally become available each semester.

### **How do I apply for a GA/TA position?**

GA/TA applications are available in the SDSU ENS Interfolio application and on the ENS website and should be uploaded via that application.

## **Frequently Asked Questions (continued)**

### **How competitive are the programs?**

Our graduate programs are becoming increasingly competitive, with many qualified applicants vying for a limited number of spots. In 2021, our applicants had the following average GPAs:

Exercise Physiology - 3.44

Nutritional Sciences - 3.23

Concurrent MS Exercise Physiology and MS Nutritional Sciences - 3.58

### **Are there research opportunities in the program?**

Yes, our students engage in a variety of research projects. Many students team up with faculty members or get involved with community-based projects. Students are expected to complete a research project to satisfy the Thesis or Directed Readings requirement to graduate.

### **Can I apply for more than one program?**

No, you may only apply for one SDSU graduate program, including our Doctorate of Physical Therapy program.

### **When does the application open?**

October 1<sup>st</sup> of the fall before the fall of the intended program start.

### **What coursework should I enter on the Cal State Apply application?**

Since admissions decisions are based on official transcripts, you should only enter your in-progress and planned coursework on the Cal State Apply coursework history. Do not enter all of your previously completed high school and undergraduate coursework.

### **When will my Red ID number be issued?**

You will be issued a Red ID 2-3 weeks after submitting the Cal State Apply application.

### **Can I enroll in classes at SDSU prior to acceptance?**

Contact the Office of Extended Studies for information on [Open University](#) for taking pre-requisite classes before acceptance. Please see Graduate Advisor if, upon acceptance, you wish to take prerequisite classes at SDSU the summer before your start date.

### **Can I apply for the Didactic Program in Dietetics (DPD) too?**

It is possible to complete the DPD coursework along with MS in Nutritional Sciences or Concurrent MS in Exercise Physiology and MS Nutritional Sciences. Graduate students must complete one semester in the Nutritional Sciences or Concurrent I program before becoming eligible to apply to the DPD. Please contact the ENS Graduate Advisors or visit <http://ens.sdsu.edu/academic-programs/dpd/admissions/> for more information.

### **How big is the ENS graduate department?**

There are approximately 60 active graduate students enrolled in our four programs.

### **Do I have to complete a thesis?**

Some students do opt to complete a thesis. There is an option to complete a Directed Readings, which is an alternative to a thesis project. The Directed Readings course offers students several options for completing the research requirement, including a manuscript submission.

### **How much does it cost to attend SDSU?**

California resident fees: \$9,570 per year (full-time student) (2021-22)

Non-resident fees: \$9,570 per year plus \$396 per credit unit (2020-21)

For more tuition information, please visit: <http://bfa.sdsu.edu/financial/student/tuition.aspx>.

### **Is Financial Aid available? How do I apply for Financial Aid?**

The SDSU Financial Aid office can discuss information regarding specific financial aid options. Please contact the Financial Aid Office at (619) 594-6323 or [http://go.sdsu.edu/student\\_affairs/financialaid/](http://go.sdsu.edu/student_affairs/financialaid/) for more specific information. You can receive up to 125% of your Program of Study units of financial aid. Students taking above 125% of units, usually for the DPD, may not be eligible for financial aid for all Program of Study and Didactic Program in Dietetics units.

### **Are scholarships available? How do I apply for them?**

There are scholarships available for ENS students. Most are available after at least 9 graduate units have been completed at SDSU. For more information, please visit: [http://go.sdsu.edu/student\\_affairs/financialaid/sdsuscholarshipshowtosearch.aspx](http://go.sdsu.edu/student_affairs/financialaid/sdsuscholarshipshowtosearch.aspx).

### **How long does it take to complete the degree?**

Length of program is sequenced to be 2 years (3 years for Concurrent MS Degrees). You must complete your degree in no more than 7 years.

### **Does the School of ENS offer doctoral degrees?**

We offer a clinical doctorate in Physical Therapy. There are no Ph.D. or other doctorate programs in our school at this time.

### **Can I visit before I come?**

Visits are encouraged and can be arranged via email: [ensgrad@sdsu.edu](mailto:ensgrad@sdsu.edu). Students are encouraged to meet with potential faculty advisors prior to applying. To arrange a campus tour, see [http://arweb.sdsu.edu/es/admissions/tours\\_events/index.html](http://arweb.sdsu.edu/es/admissions/tours_events/index.html). To schedule an athletic training program tour, contact [atpinfo@sdsu.edu](mailto:atpinfo@sdsu.edu).

### **Have other questions?**

Contact the ENS graduate advisors by email at [ensgrad@sdsu.edu](mailto:ensgrad@sdsu.edu).

See walk-in hours at <http://ens.sdsu.edu/student-resources/advising/meet-your-adviser/>.

For questions related to the MSAT program, email [atpinfo@sdsu.edu](mailto:atpinfo@sdsu.edu).



### M.S. EXERCISE PHYSIOLOGY

The MS degree in Exercise Physiology is built around both basic and applied science to provide a robust foundation for students entering diagnostic, preventive, and rehabilitative healthcare. The program also provides preparation for those intending to pursue a doctoral degree in a variety of physiology disciplines. The faculty includes researchers active in exercise physiology, pathophysiology, and nutrition subspecialties such as environmental, metabolic, skeletal muscle, pulmonary, cardiac, spinal cord injury, etc. The faculty provide graduate student opportunities in basic, clinical, and translational research. Graduate students learn essential human physiology laboratory skills in areas such as cardiopulmonary exercise testing, spirometry, exercise training interventions, body composition, and thermoregulation. Graduate students have opportunities to master cornerstone biochemistry techniques such as Western blotting, qPCR, ELISA, spectrophotometry, mitochondrial respirometry and fluorometry, and tissue histology. **(36 units)**

#### **Undergraduate Prerequisite Coursework or Equivalent**

- Human Anatomy (BIOL 212)\*
- Human Physiology (BIOL 261 or 336)\*
- Physiology of Exercise with Lab (ENS 304)\*
- Exercise Physiology Lab (ENS 304L)\*
- Applied Kinesiology (ENS 303)
- Statistics (e.g., PSY 280)\*

**\* Must be completed prior to admission**

#### **Required Courses (29 units):**

**ENS 601** Experimental Methods in ENS (3)  
**ENS 602** Research Evaluation in ENS (3)  
**ENS 632** Physiological Chemistry of Exercise (3)  
**ENS 661** Seminar in Exercise Physiology (3)  
**ENS 662** Advanced Exercise Physiology Laboratory (3)  
**DPT 750** Concepts in Physiology, Pathophysiology & Pharmacology (4)  
**DPT 830** Cardiopulmonary Therapeutics (4)  
**ENS 796** Exercise Specialist Internship (3)  
**ENS 799A** Thesis (3) **OR**  
**ENS 790** Directed Readings (3)  
**Electives** (7 units) selected in consultation with advisor.

#### **Faculty:**

Michael Buono (mbuono@sdsu.edu)  
 Daniel Cannon (dcannon@sdsu.edu)  
 Jochen Kressler (kressler@sdsu.edu)

### M.S. NUTRITIONAL SCIENCES

Graduates with the MS degree in Nutritional Sciences may be employed as administrators or providers of community nutrition programs, food service, and higher education. Others may find positions in administrative, research, or quality control in government and industry. The program also prepares those intending to pursue a doctoral degree in a variety of nutrition-related disciplines. The faculty includes researchers active in food science, allergies, clinical nutrition interventions, functional foods, osteoporosis/osteopenia, cancer pathogenesis, and sports dietetics. The faculty provide graduate students opportunities in basic, clinical, and translational research including bone physiology, cancer biology, immune function, and food chemistry. Graduate students have opportunities to master cornerstone techniques such as Western blotting, qPCR, ELISA, antibody production, spectrophotometry, chromatography, and tissue histology. Students who apply to and complete the DPD are eligible to apply to dietetic internships. **(30 units)**

#### **Undergraduate Prerequisite Coursework or Equivalent**

- General Chemistry (CHEM 100)\* ^
- Organic Chemistry (CHEM 130)\* ^
- Biochemistry (CHEM 160)\* ^
- General Biology with Lab (BIOL 100 & 100L)\* ^
- Microbiology with Lab (BIOL 211 & 211L) ^
- Human Physiology (BIOL 261 or 336)\* ^
- Basic Nutrition (NUTR 201)\*
- Food Science with Lab (NUTR 205)
- Advanced Nutrition with Lab (NUTR 302 & 302L)
- Statistics (e.g., PSY 280)\* ^

**\* Must be completed prior to admission**

^Students interested in the DPD program must complete "A" noted courses and a course in Anatomy (BIOL 212) with  $\geq$  3.1 GPA.

#### **Required Courses (21 units):**

**ENS 601** Experimental Methods in ENS (3)  
**ENS 602** Research Evaluation in ENS (3)  
**NUTR 799A** Thesis (3) **OR**  
**ENS 790** Directed Readings (3)  
**NUTR 607** Child Nutrition (3)  
**NUTR 608** Geriatric Nutrition (3)  
**NUTR 610** Nutrition and Energy (3)  
**Select one (3 units) of NUTR 600 OR**  
**NUTR 700: Seminar in Nutrition (3)**  
**NUTR 600 Seminar: Foods and Nutrition (3)**  
**NUTR 700 Seminar in Nutrition (3)**  
**Electives** (9 units) selected in consultation with advisor. If both NUTR 600 and 700 are taken, one will satisfy a requirement and the other will satisfy elective units.

#### **Faculty:**

Surabhi Bhutani (sbhutani@sdsu.edu)  
 Mee Young Hong (mhong2@sdsu.edu)  
 Shirin Hooshmand (shooshmand@sdsu.edu)  
 Mark Kern (kern@sdsu.edu)  
 Changqi Liu (changqi.liu@sdsu.edu)  
 Amanda McClain (amclain@sdsu.edu)



### CONCURRENT M.S. EXERCISE PHYSIOLOGY & M.S. NUTRITIONAL SCIENCES

The major objective of the concurrent graduate program is to offer preparation in the interrelated fields of nutritional science and exercise physiology in health, aging, disease prevention, and rehabilitation with in-depth theoretical knowledge and practical experiences. See both individual program descriptions for more details. Students who apply to and complete the DPD are eligible to apply to dietetic internships. (48 units)

#### **Undergraduate Prerequisite Coursework or Equivalent**

- General Chemistry (CHEM 100)\*
- Organic Chemistry (CHEM 130)\*
- Biochemistry (CHEM 160)\*
- Human Anatomy (BIOL 212)\*
- Human Physiology (BIOL 261 or 336)\*
- Physiology of Exercise (ENS 304)\*
- Exercise Physiology Lab (ENS 304L)\*
- Applied Kinesiology (ENS 303)
- Statistics (e.g., PSY 280)\*
- Basic Nutrition (NUTR 201)\*
- Advanced Nutrition with Lab (NUTR 302 & 302L)

\* Must be completed prior to admission

#### **Required Courses (41 units):**

- DPT 750** Concepts in Physiology, Pathophysiology, & Pharmacology (4)
- DPT 830** Cardiopulmonary Therapeutics (4)
- ENS 601** Experimental Methods in ENS (3)
- ENS 602** Research Evaluation in ENS (3)
- ENS 661** Seminar in Exercise Physiology (3)
- ENS 662** Advanced Exercise Physiology Laboratory (3)
- ENS 796** Exercise Specialist Internship (3)
- NUTR 600** Seminar: Foods and Nutrition (3)
- NUTR 607** Child Nutrition (3)
- NUTR 608** Geriatric Nutrition (3)
- NUTR 610** Nutrition and Energy (3)
- NUTR 700** Seminar in Nutrition (3)
- NUTR 799A** Thesis (3)
- ORENS 799A** Thesis (3) **OR**
- ENS 790** Directed Readings (3)
- Electives** (7 units) selected in consultation with advisor.

#### **Faculty:**

Michael Buono (mbuono@sdsu.edu)  
 Daniel Cannon (dcannon@sdsu.edu)  
 Mee Young Hong (mhong2@sdsu.edu)  
 Shirin Hooshmand (shooshmand@sdsu.edu)  
 Mark Kern (kern@sdsu.edu)  
 Jochen Kressler (jkressler@sdsu.edu)  
 Changqi Liu (changqi.liu@sdsu.edu)

### M.S. ATHLETIC TRAINING

The Master of Science in Athletic Training degree program is a 64-unit degree program including two summer semesters and four traditional semesters. Students will complete both academic and clinical experiences leading to eligibility for the Board of Certification Examination. The program supports 50 students annually across 15 affiliated clinical sites with over 70 clinical preceptors.

#### **Undergraduate Prerequisite Coursework or Equivalent**

- Human Anatomy with Lab and Human Physiology **OR** Anatomy and Physiology I and II with Lab (BIOL 212; BIOL 261 or BIOL 336)
- Biomechanics (ENS 306)
- Exercise Physiology with Lab (ENS 304 & ENS 304L)
- General, Abnormal, or Developmental Psychology (PSY 101, PSY 350, or PS 230)
- Introductory or General Statistics (STAT 119, BIOL 215, PSY 280, or SOC 201)
- Fundamentals of Nutrition (NUTR 201)
- Introduction to Athletic Training with Lab (ENS 265 & 265L)
- Introductory or General Chemistry (CHEM 100 or CHEM 200)
- Introductory or General Physics; Lab is not required (PHYS180A)
- Introductory Weight Training (ENS 104A or B)

\* All Prereqs must be complete prior to start of Summer Session II

#### **Recommended Courses:**

**ENS 303** Applied or Clinical Kinesiology (ENS 303)  
 Medical Terminology (No SDSU Equivalent)  
**PSY 301, ENS 601, or PH 607** Research Methods

#### **Required Courses (64 units):**

- DPT 750** Concepts in Physiology, Pathophysiology & Pharmacology (4)
- ENS 604** Evidence Based Practice in Athletic Training I (1)
- ENS 605** Evidence Based Practice in Athletic Training II (1)
- ENS 606** Evidence-Based Practice in Athletic Training III (1)
- ENS 607** Evidence Based Practice in Athletic Training IV (1)
- ENS 625** Emergency Management of Sports Trauma (2)
- ENS 626** Clinical Anatomy (2)
- ENS 627L** Prophylactic Interventions in Athletic Training (1)
- ENS 638** Bio-Psychosocial Theories and Strategies in Athletic Training (2)
- ENS 648** Professional Ethics, Management, Informatics, & Leadership in Athletic Training (2)
- ENS 649** Professional Preparation in Athletic Training (1)
- ENS 653/653L** Musculoskeletal Diagnostics for the Lower Extremity (3)
- ENS 654/654L** Musculoskeletal Diagnostics for the Upper Extremity (3)
- ENS 655/655L** Musculoskeletal Diagnostics for the Head & Spine (3)
- ENS 663/663L** Musculoskeletal Interventions for the Lower Extremity (4)
- ENS 664/664L** Musculoskeletal Interventions for the Upper Extremity (4)
- ENS 665/665L** Musculoskeletal Interventions for the Head & Spine (4)
- ENS 670/670L** Corrective Exercise Specialist (CES) (4)
- ENS 689A** Athletic Training Clinical Internship I – Pre-Season (5)
- ENS 689B** Athletic Training Clinical Internship II (5)
- ENS 699A** Athletic Training Clinical Clerkship I (2)
- ENS 699B** Athletic Training Clinical Clerkship II (2)
- ENS 699C** Athletic Training Clinical Clerkship III (2)
- ENS 699D** Athletic Training Clinical Clerkship IV (2)
- NUTR 512** Nutrition for Athletes (3)

#### **Faculty:**

Michael Buono (mbuono@sdsu.edu)  
 Margo Greicar (mgreicar@sdsu.edu)  
 Mark Kern (kern@sdsu.edu)  
 Denise Lebsack (dlebsack@sdsu.edu)  
 Michelle Rawlins (mrawlins@sdsu.edu)