Graduate Council Curriculum Committee March 26, 2012 12:00 p.m., MH 395 REVISED

Agenda

- 1. Welcome and call to order.
- 2. Review minutes from last meeting.
- 3. Revisions to the Sport & Ex Sci MS, Sport Leadership Coaching track, CED
- 4. Revisions to the Engineering Management MS, PSM, CECS
- 5. Addition of a PSM, PEM track to the Engineering Management, MS, CECS
- 6. Courses and special topics
- 7. Adjournment

Members of the Graduate Council Curriculum Committee:

Tosha Dupras, COS
Cristina Fernandez-Valle, COM
Charles Kelliher, CBA
Kerry Purmensky, CAH
Art Weeks, CECS
Deborah Breiter, RCHM
Naim Kapucu, COHPA
Joyce Nutta, CED
Terrie Sypolt, LIB
Julee Waldrop, CON
Boris Zeldovich, COP
Jay Jay Stroup, GSA
Ross Hinkle, EX Officio
Max Poole, CGS Liaison

Program Action Request Form

This form is to be used to revise, add, suspend, or inactivate degree programs, tracks, or certificate programs. A new form must be used for each program, track, or certificate.

PLEASE NOTE: The deadline for new tracks or certificates is <u>February 1 of each year</u>. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are <u>due by March 15</u>. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy <u>showing changes</u> (use Track Changes in Word).

College/Unit(s) Submitting Proposal: Education

Proposed Effective Term/Year: Summer 2012 (2012-13 Catalog)

Unit(s) Housing Program: Child, Family and Community Sciences

Name of program, track, and/or certificate: Sport and Exercise Science M.S.

1) Action: Change the TRACK name from "Sport Leadership and Coaching" to "Coaching and Sport Administration"

2) Action: Add a TRACK: "Sport Nutrition"

3) Action: Program reorganization to include new Sport Nutrition Track and new courses (see catalog copy).

4) Action: Five (5) new courses are being added as graduate offerings:

'ET 6XXX- Dietary and Nutritional Supplementation

PET 6XXX: Physiological Aspects of Sport and Training

PET 6XXX: Program Design in Strength and Conditioning

PET 6XXX: Sport Nutrition

PET 7XXX: Exercise Endocrinology

5) Action: Two (2) courses are being submitted to revise the course name: PET 6515C; & PET 6690

Description of program (this description will show up in the graduate catalog copy):

OVERALL PROGRAM DESCRIPTION

The Master of Science in Exercise Science provides an in-depth study of applied human physiology and how it relates to athletic performance and health and wellness across the lifespan. Additional areas of study focus on sport nutrition, environmental physiology and exercise biochemistry. Students interested in coaching will receive a thorough understanding of the physiological development of the athlete, and combine this knowledge with appropriate principles of coaching learning to maximize athlete potential and develop realistic and attainable training goals. Students can choose among three tracks: Applied Exercise Physiology; Coaching and Sport Administration; and Sport Nutrition.

APPLIED EXERCISE PHYSIOLOGY TRACK DESCRIPTION

The Applied Exercise Physiology track in the Sport and Exercise Science graduate program provides students with knowledge in health/wellness and applied physiology. Focus of study is on preparing students to study elite athletic development, youth health and fitness, and using exercise and nutrition interventions to enhance quality of life for

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| mature adults. Students wil | I prepare for career | s in research, | person | al training, and str | ength and c | onditioning. | i |
|--|---|---|---|---|---|--|-----------------------------------|
| COACHING AND SPORT A | DMINISTRATION | TRACK DESC | CRIPTIC | N | | | |
| The Coaching and Sport Actions to become more effective coace evaluating. Program is basis physiological effects of sport gone on to coaching career | ches by helping dev ed upon developing t, training adaptatio | relop skills rela g a solid scient on, program de | ated to p | lanning, organizir dation to assist c | ng, managin baches in ur | ig, and nderstanding th | ne |
| SPORT NUTRITION TRAC The Sport Nutrition track in nutrition and how it applies the types and quantities of f micronutrient (vitamins and modifications for weight lose of dietary and nutritional sup provides nutritionists and die | the Sport and Exerct to maximizing athlet ood needed by end minerals) intakes and s and weight gain an oplementation, with | tic performand lurance and st re focused on re also discus topic areas in | ce. Prog trength/p their eff sed. Th ncluding | pram provides stu- power athletes. D ects of athletic pe e program also pr regulation, legality | dents with a iscussion of rformance. rovides a the and efficate | strong backgr f macro- and In addition, die prough underst cy. This progra | ound in etary tanding am |
| DELIVERY - Will program be d | elivered: D Fac | e to face | | ompletely onlin | e 🕸] | Mixed deliver | У |
| Admissions deadlines: (Pleas eadlines will not change. | e specify if you have | e a different d | deadline | for the track than | for the prog | gram?) Admis | sion |
| Application requirements: (Ple program? Will you admit dire APPLICATION REQUIL apply to all prospective stu | ectly to the track?) REMENTS: For | information | on gene | eral UCF gradua | te admissio | ons requireme | |
| apply online. All requested | | | | | | ØFF | |
| In addition to the general U | ICF graduate appl | ication requi | irement | s, applicants to t | his prograr | n must provid | le: |
| One official transcr Official, competitiv Three letters of reco Goal statement. | e GRE score taker | | | | attended. | | |
| Résumé / vita reflection | ting relevant expe | erience. | | | | • | |
| Program Director(s) and conta | ct information: (nam | ie, email, phone | e, campu | address, program | website addr | ress) | |
| For the Sport and Exercise Sci | | | | ,, | | , | |
| Jay R. Hoffman, Ph.D., Professo | | | | ne: 407-823-3824; | Office: Orla | ındo Campus Eſ |) 320H |
| Rev. 2011.11.15 R. Brice | | Page 2 | | | | | |
| ether commission of the control of t | ICF College of Graduate Questions? Con | | | 12, Orlando, FL 3281 elson@mail.ucf.edu | 6-0112 | | |

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| http://education.ucf.edu/sportexscience/ |
|--|
| Please check one: This action affects a: Program Track |
| Please check one: This action is a(n): |
| Addition. Please proceed to Part A. Adding a "Sport Nutrition" Track |
| Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A: |
| Program Revisions/Additions: |
| 1) Action: Change the TRACK name from "Sport Leadership and Coaching" to "Coaching and Sport Administration." After meeting with the Provost, we have decided that "Coaching and Sport Administration" would be a name to better serve the intent of the track. |
| 2) Action: Add a TRACK: "Sport Nutrition" |
| 3) Action: Program reorganization of the program to include new Sport Nutrition Track, curricular reorganization, and new courses (see catalog copies of the Program and each Track). |
| 4) Action: Five (5) new courses are being added as graduate offerings: |
| PET 6XXX- Dietary and Nutritional Supplementation |
| PET 6XXX: Physiological Aspects of Sport and Training |
| ET 6XXX: Program Design in Strength and Conditioning |
| PET 6XXX: Sport Nutrition |
| PET 7XXX: Exercise Endocrinology |
| 5) Action: Two (2) courses are being submitted to revise the course name: PET 6515C; & PET 6690 |
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| |
| ☐ Inactivation N/A |
| Temporary Suspension of Admissions. Give Length of Suspension: N/A |
| Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment. |
| Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. Students active in the program are eligible to complete the program under the appropriate criteria and an appropriate teach-out plan is required. The program will be removed from the catalog as of the approved term. |
| If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it. |
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| REC | OMMEN | DATIO | NS | - 11 55 1 | 2// |
|-------|---------|--------|--------|--------------------------------------|-----------------------|
| ø/ | Yes | | No | Department Chair: Dr. Anne Cufp | Date: 3/19/12 |
| | Yes | | No | College Curriculum Committee Charles | 6 XV 11 Date: 3/19/12 |
| | Yes | | No | College Dean or Unit Heads | Date: 3/19/12 Janden |
| | Yes | | No | Chair or GSC: | Date: |
| | Yes | | No | Dean, College of Graduate Studies: | Date: |
| APPF | ROVAL | | | | |
| Prove | ost and | Vice P | reside | nt for Academic Affairs: | Date: |

Part A - For additions or revisions of programs, tracks or certificates

Brief Statement of Program Change and rationale: (Please indicate the change, the rationale for the change, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate. If there are changes to the credit hours of the program, required courses or other requirements, please state those changes. Remember to attach the catalog copy showing changes, using Track Changes in Word.)

This past year an evaluation of the graduate program and a renewed focus on the direction of graduate study has resulted in several changes being made to reflect the expertise and direction of the new graduate faculty recently hired in Sport and Exercise Science. Last year we developed the Sport and Exercise Science Program focus in both the applied and scientific research aspects of sport and exercise. There were three areas of applied and scientific research identified that would become the basis of our graduate study and research: 1) elite athletic development; 2) youth health and fitness; and 3) exercise and nutrition interventions to enhance the quality of life for mature adults. The proposed changes in our graduate program includes retaining the two current Tracks (with a name change for one of the Tracks) and adding a Sport Nutrition Track. Two existing courses are also having their names changed. Additionally, five new course offerings are being added to the program. The program is preparing students for careers in research and applied fields encompassing physiological aspects related to strength and conditioning (including exercise endocrinology, biochemistry and muscle physiology), sport nutrition (nutritional and dietary interventions), coaching, and personal training. The sport nutrition track will provide students with an-a-learning opportunity that focuses on nutritional strategies designed to maximize human performance that range from elite athletes to maintaining muscle mass and function in the elderly. This new track is designed for the exercise science student as well as registered dieticians who are looking to gain a master's in exercise science with a specific emphasis on sport nutrition and supplementation.

| Will students be mo | ved from an existing program, track, or certificate into this new program, track, or certificate? |
|--|--|
| □ Yes 🏵 | No |
| If yes, state the name | of the program or track where students are currently enrolled and provide a list of students if possible: |
| The program is just | changing the name of one track and adding another Track (Sport Nutrition). |
| Will students have t | he option to stay in their existing program, track, or certificate? 🔻 Yes |
| Name Change of one track. | Are you changing the name of an existing program, track, or certificate? $\ \ \Box$ Yes; Changing the name |
| If yes, provide the ne | w name of the program: n/a (Program name does not change) |
| Provide the name of | the current program: Sport and Exercise Science, Master of Arts (M.S.) |
| If yes, provide the ne | w name of the track: Track Name Change to "Coaching and Sport Administration" |
| Provide the name of | the current track: "Sport Leadership and Coaching" |
| When will the name | changes become effective? Please note: A name change will apply to the record of all students who are |
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| ************************************** | |

currently enrolled, readmitted or newly admitted into this program as of the effective date of this change. Summer 2012 (2012-13 catalog)

Will students have the option to stay in their existing program, track, or certificate? Yes

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide: n/a old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A. Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

- Jay R. Hoffman, PhD: Dr. Jay Hoffman holds the rank of full professor in the Department of Child, Family and Community Sciences at the University of Central Florida. He is the Sport and Exercise Science Program Coordinator, administrating both the graduate and undergraduate programs. Dr. Hoffman is also a fellow of the American College of Sports Medicine and the National Strength and Conditioning Association. Dr. Hoffman was elected as President of the National Strength and Conditioning Association in July of 2009. He holds a unique perspective in his sport science background. Prior to his academic career he signed free agent contracts with the NY Jets and Philadelphia Eagles of the NFL and the Tampa Bay Bandits of the USFL. Recent honors and awards bestowed upon Dr. Hoffman include: 2007 Outstanding Sport Scientist of the Year from the National Strength and Conditioning Association (NSCA), 2005 Outstanding Kinesiology Professional Award from the Neag School of Education Alumni Society of the University of Connecticut, 2003 Educator of the Year NSCA, and 2003 Neag School of Education Outstanding Alumni Research Award (University of Connecticut). Dr. Hoffman is also the sports science advisor to Major League Baseball Strength Coaches and is assisting them in developing a steroid education program for baseball. Dr. Hoffman's primary area of study is in sports supplementation and training paradigms. Dr. Hoffman has published more than 150 articles and chapters in peerreviewed journals. His books Physiological Aspects of Sport Training and Performance and Norms for Fitness, Performance, and Health were published by Human Kinetics. A Practical Guide to Designing Resistance Training Programs and Total Fitness for Baseball were published by Coaches Choice. Further sharing his research and findings, Dr. Hoffman has lectured at more than 250 national and international conferences and meetings.
- 2) Jeffrey Stout, Ph.D.: Dr. Jeffrey Stout will join the Sport and Exercise Science faculty as of January 2012. He received a bachelor's degree in Exercise Science from Concordia University in 1989 and a masters and doctorate in Exercise Physiology from the University of Nebraska-Lincoln in 1992 and 1995, respectively. In addition, Dr. Stout is a Fellow of the American College of Sports Medicine (FACSM), Fellow of the International Society of Sports Nutrition and Certified Strength and Conditioning Specialist (CSCS). Dr. Stout has conducted and published numerous studies that focus on nutritional intervention on exercise performance, muscle function and body composition in journals such as Journal of Applied Physiology, Journal of Strength and Conditioning Research and Medicine and Science in Sports and Exercise. Furthermore, he has edited and co-authored six books on sports nutrition. Dr. Stout serves on the Editorial Boards of the Journal of Strength and Conditioning Research and Journal of the International Society of Sports Nutrition and is a regular reviewer for journals such as Medicine and Science in Sports and Exercise and Journal of Sports Science and Medicine. He has also attended and regularly presented at each NSCA National Conference since 1993 and was recently elected to the NSCA Research Committee. Dr. Stout received the 2001 Outstanding Young Investigator of the Year Award from the NSCA as well as the Editorial Excellence Award from the Journal of Strength and Conditioning Research.
- 3) Maren Fragala, Ph.D: Dr. Fragala is an Assistant Professor in the Sport and Exercise Science Program. Her research research interests focus on biochemical and physiological aspects of sports and exercise. Her prior research in the Human

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Performance Laboratories, the Harvard Prevention Research Center, and the University of Massachusetts spanned populations of varied ages and physical abilities. Dr. Fragala's research involves exercise interventional studies to decipher what happens to muscle in response to exercise stress. More specifically, she studies how resistance exercise can improve muscle quality in both older adults, with implications for reductions in the severity of sarcopenia, and younger healthy adults, with implications for optimizing physical performance. Dr. Fragala has published 36 referred scientific journal articles and four book chapters. She holds six professional memberships and is a reviewer for four journals. Dr. Fragala is also an Associate Editor for the Journal of Strength and Conditioning Research.

- 4) Dr. Thomas Fisher, PhD: Dr. Fisher is the former graduate coordinator of the Health/Wellness and Applied Exercise Physiology track in the Sport & Exercise Science M.S. Dr. Fisher also serves as a graduate and undergraduate instructor in Applied Exercise Physiology. Outside consultations include being the clinical director of optimum human performance, a performance enhancement, and rehabilitation private practice including physical training trograms, motivation and sport psychology, and as the director of Health Sciences at the Golf Academy of the South. Dr. Fisher has been involved with the martial arts for over 35 years, and holds the rank of senior black belt instructor, examiner, and referee. He is also a licensed mental health counselor (LHMC), certified strength & conditioning specialist (CSCS) through the NSCA, and a certified rehabilitation counselor (CRC).
- 5) Joe Burden, Jr. PhD: Dr. Joe Burden, Jr. is an Assistant Professor in the Sport and Exercise Science program. He has a plethora of administrative and pedagogical experiences in higher education, which include assistant to the director of compliance in the Department of Intercollegiate Athletics at Delaware State University, academic counselor for the football program at the University of Maryland, teaching for and coordinating the Sport Management program at Delaware State University, and serving as a teacher education preparing pre-service teachers in the physical education teacher education program at Kean University (NJ). Dr. Burden has authored and co-authored several manuscripts accepted for publication in some of the top peer reviewed journals in the fields of education and kinesiology such as Quest, Race, Ethnicity and Education, Research Quarterly for Exercise and Sport, and American Behavioral Scientist. Dr. Burden has researched a wide range of topics including the pedagogical experiences of ethnically diverse faculty in kinesiology programs, racial/ethnic behavioral intentions in sport and physical activity, teacher educators' perceptions of pre-service teachers preparation in PETE programs as it relates to multicultural teaching competence, pre-service teachers' perceived multicultural teaching competence, pre-service teachers' levels of colorblind racial beliefs, and racial stereotyping in teachers, coaches, students, and athletes in sport and physical activity settings. More specifically, Dr. Burden's research foci is concerned with analyzing the influences of racial/ethnic stereotypes and its implications on teaching, learning, and behaviors in K-12 physical education and sport settings.
- 6) Edward (Ted) Kian, PhD: Dr. Kian is an Assistant Professor for the Sport and Exercise Science Program. His academic research focuses on sport media, specifically portrayals of gender and gays and lesbians in sport media articles, new media, and attitudes and experiences of sport media members. Dr. Kian's scholarly research has been published in journals such as Broadcasting & Electronic Media, Contemporary Athletics, International Journal of Sport Communication, International Review for the Sociology of Sport, Journal of Homosexuality, Journal of Sports Media, Newspaper Research Journal, Soccer in Society, Sociology of Sport Journal, and SMART. Dr. Kian earned an undergraduate degree in journalism from the University of Georgia, a master's in sport management from the University of Texas at Austin, and a Ph.D. in sport administration from The Florida State University, where he also served as an instructor in the sport management program and assisted with academic advising.

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

There will be no negative impact on the students currently in the program. The suggested changes will provide students the additional option of a Sport Nutrition track within the program, as well as additional course offerings. Students currently in the program will not be affected.

If applicable, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

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No other programs are in conflict with the minimal changes being made to the program.

If an addition, provide a statement of who is likely to enroll and why. Please state if there is licensure or certification that depends upon this education, etc. Also, complete the following table.

Students likely to enroll in this program are individuals interested in careers in exercise science and wellness fields. Graduates will be involved with applied and scientific exploration of issues related to health, wellness, coaching, elite athletic performance, sport nutrition, etc. Depending upon field chosen by students, there are various recommended certifications they may wish to obtain.

Current Enrollment Information:

Total for Sport and Fitness M.A. (Former Catalogs): 47 active students. The majority of these students will graduate in Fall 2011 or Spring 2012:

Applied Exercise Physiology Track: 14 active students Sport Leadership & Coaching Track: 33 active students

Total for Sport and Exercise Science M.S. (Current Program): 45 active students:

Applied Exercise Physiology Track: 28 active students Sport Leadership & Coaching Track: 17 active students

Total students in both the Sport and Exercise Science M.S. (Current Program) and the Sport and Fitness M.A. (Former Catalogs): 92 active students.

Please note the trend of increased students in the Applied Exercise Physiology Track. It is anticipated that the added Sport Nutrition Track will quickly grow in enrollment as well.

| | Year 1 | Year 2 | Year 3 |
|-----------|---------------------------|------------|--------|
| Headcount | 92 (currently in program) | 105 | 120 |
| SCHs | ~1840 SCHs | ~2100 SCHs | ~2400 |

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

Some students may elect to continue with graduate studies in a doctoral program. Examples of job upon completion of the program/track are: Sport researcher; Coaching; Personal Trainer; Allied Health; Sport Nutrition; Health Science Industry.

If an addition or there are substantial REVISIONS to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

| | No. assistantship students | Source of funds | No. fellowship students (specify fellowship) | No. tuition remissions | Source of funds |
|--------|----------------------------|-----------------|--|------------------------|-----------------|
| Year 1 | N/A | | | | |

Checklist of items to be provided:

Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)

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- Attach all appropriate course action requests that will be necessary to implement the changes.
- N/A Emails showing consultation with other units. Does not apply
- N/A If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Terms to provide additional links for prospective students to search in the online graduate catalog:

sport(s); exercise; movement science; physiology; applied physiology; kinesiology; athletic; training; science; health; wellness; nutrition; fitness.

Master of Science (M.S.) in Sport and Exercise Science

A Proposal to the Graduate Curriculum and Standards Committee

TO: **CED Graduate Curriculum and Standards Committee (GCSC)**

Department of Child, Family and Community Sciences (CFCS) FROM:

RE: Add a Track; Name change for a Track; and Curriculum Changes

November 15, 2011

Overview / Rationale

Date:

This past year an evaluation of the graduate program and a renewed focus on the direction of graduate study has resulted in several changes being made to reflect the expertise and direction of the new graduate faculty recently hired in Sport and Exercise Science. Last year we developed the Sport and Exercise Science Program focus in both the applied and scientific research aspects of sport and exercise. There were three areas of applied and scientific research identified that would become the basis of our graduate study and research: 1) elite athletic levelopment; 2) youth health and fitness; and 3) exercise and nutrition interventions to enhance the quality of life .or mature adults. The proposed changes in our graduate program includes retaining the two current Tracks (with a name change for one of the Tracks) and adding a Sport Nutrition Track. Two existing courses are also having their names changed. Additionally, five new course offerings are being added to the program. The program is preparing students for careers in research and applied fields encompassing physiological aspects related to strength and conditioning (including exercise endocrinology, biochemistry and muscle physiology), sport nutrition (nutritional and dietary interventions), coaching, and personal training. The sport nutrition track will provide students with $\frac{1}{2}$ learning opportunity that focuses on nutritional strategies designed to maximize human performance that range from elite athletes to maintaining muscle mass and function in the elderly. This new track is designed for the exercise science student as well as registered dieticians who are looking to gain a master's in exercise science with a specific emphasis on sport nutrition and supplementation.

Summary of Proposed Changes from Existing Degree Plan

The Department of Child, Family and Community Sciences proposes the following additions/revisions:

- 1) Action: Change the TRACK name from "Sport Leadership and Coaching" to "Coaching and Sport Administration"
- 2) Action: Add a TRACK: "Sport Nutrition"
- 3) Action: Program reorganization to include new Sport Nutrition Track and new courses (see catalog
- 4) Action: Five (5) new courses are being added as graduate offerings:

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PET 6XXX- Dietary and Nutritional Supplementation

PET 6XXX: Physiological Aspects of Sport and Training

PET 6XXX: Program Design in Strength and Conditioning

PET 6XXX: Sport Nutrition

PET 7XXX: Exercise Endocrinology

5) Action: Two (2) courses are being submitted to revise the course name: PET 6515C; & PET 6690

These changes will not affect students in the program. Students in current/former catalogs can complete the program/track as designated in their catalog year.

Sport and Exercise Science M.S. (Overview of Catalog)

PROGRAM DESCRIPTION

The Master of Science in Sport and Exercise Science provides an in-depth study of applied human physiology and how it relates to athletic performance and health and wellness across the lifespan. Additional areas of study focus on sport nutrition, environmental physiology and exercise biochemistry. Students interested in coaching will receive a thorough understanding of the physiological development of the athlete, and combine this knowledge with appropriate principles of coaching learning to maximize athlete potential and develop realistic and attainable training goals. Students can choose among three tracks within the Sport and Exercise Science Program: Applied Exercise Physiology; Coaching and Sport Administration; or Sport Nutrition.

CURRICULUM

The Master of Science in Sport and Exercise Science offers a thesis and non-thesis option for students. Both the thesis and non-thesis options require a minimum of 36 credit hours. Students selecting the thesis option must receive a commitment from a faculty advisor for admission to the thesis track of the program. Both options require a minimum of 18 credit hours of course work at the 6000 level. Students in the M.S. program in Sport and Exercise Science have a choice of three tracks: Applied Exercise Physiology; Coaching and Sport Administration; or Sport Nutrition. Students in the Applied Exercise Physiology and Sport Nutrition Tracks will focus on an academic curriculum that prepares them for careers in research, strength and conditioning, fitness training, and health and wellness. Students that choose the Coaching and Sport Administration Track will focus on an academic curriculum that prepares them for a career in coaching.

All students in the non-thesis track will be required to take an independent learning experience (PET 6910) that involves a detailed literature review specific to a subject area of the student's interest. This is done with the supervision of graduate faculty. Another option for students in the non-thesis track is to participate in a practicum (PET 6946) that will serve as their culminating graduate experience.

REQUIRED COURSES

Students in all tracks must take two required courses (6 credit hours)

- EDF 6481: Fundamentals of Graduate Research in Education
- PET 5355: Exercise and Health

CORE COURSES FOR TRACK

Students in each track will be required to take three courses (9 credit hours) specific to their track. Students in the **Applied Exercise Physiology Track** will need to take:

• PET 6XXX:

Program Design in Strength and Conditioning.

• PET 6391:

Physiological Aspects of Sport and Training

• PET 6515C:

Assessment and Evaluation in Sport and Exercise Science

Students in the Coaching and Sport Administration Track will be required to take the following three courses:

• PET 5766:

Advanced Coaching Theory

PET 6347:

Advanced Coaching Methods

• PET 6XXX:

Program Design in Strength and Conditioning

Students in the **Sport Nutrition Track** will be required to take the following three core classes:

PET 6XXX:

Sport Nutrition

PET 6938:

Dietary and Nutritional Supplementation

PET 6362:

Exercise, Nutrition and Weight Control

ELECTIVE COURSES

Students in all tracks that select the thesis option must take 15 credit hours in electives. Students that select the non-thesis option must take 18 credit hours in electives. All electives are selected in conjunction with the student's graduate advisor or the graduate coordinator. Students can choose from the following courses:

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Suggested Electives by Track

| Applied Exercise Physiology | Coaching | Sport Nutrition | | |
|--|--|--|--|--|
| EDF 6401: Statistics for Educational Data | EDF 6401: Statistics for Educational Data | EDF 6401: Statistics for Educational Data | | |
| PET 6938: ST: Dietary and Nutritional Supplementation | PET 5216: Motivational Aspects of Goaching | PET 6XXX: Program Design in Strength and Conditioning | | |
| PET 6357C: Environmental Perturbations and Human | PET 5495: Critical Issues: Ethics in Coaching and Sport | PET 6XXX: Physiological Aspects of Sport and Training | | |

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| Performance | | · · · · · · · · · · · · · · · · · · · | | | | | |
|---|--------------|---------------------------------------|------------------|------------------------|---------------------------------|----------------------|-----------------------|
| PET 6690: Exercise Prescription for Special | 1 | G: Assessment and | PET 6515C Ass | | 4 | Formatted: Left, \ | Vidow/Orphan control |
| Populations | Science | im sport and exercise | 1 ' | port and Exercise | | | |
| 1 opulations | Science | | Science | | | , | |
| PET 6366: Exercise, Nutrition | PET 6252: | Race and Gender in | PET 6357C: En | vironmental | 4 | Formatted: Left \ | Vidow/Orphan control |
| and Weight Control | Coaching a | and Sport Leadership | Perturbations a | | | · Ollination: Lon, v | VIGOTO OFFICE CONTROL |
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| PET 6381: Physiology of | PET 6XXX: | Physiological Aspects of | PET 6690: Exer | cise Prescription | 4 | Formatted: Left V | Vidow/Orphan control |
| Neuromuscular Mechanisms | Sport and | | for Special Popu | | | Torriated. Leit, V | vidow/Orphan control |
| | | | | _ | | | |
| PET 6388: Cardiovascular | PET XXXX: | Sport Nutrition | PET 7XXX Exerc | ise Endocrinology | • | Formatted: Left, V | Vidow/Orphan control |
| Physiology | | | | | Ì | | |
| PET 6XXX: Sport Nutrition | PET 6938: | ST: Dietary and Nutritional | PET 6381: Phys | iologr of | | (- | |
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| PET 6362: Exerc, Nutr and Weight | PET 6252: Race and Gender in Coaching | PET 6357C: Environmental Perturbations |
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| PET 6381: Physiology of Neuromuscular | PET 6391: Physiological Aspects of Sport | PET 6690: Exercise Prescription for Special |
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| PET 6388: Cardiovascular Physiology and | PET 6376: Sport Nutrition | PET 7387 Exercise Endocrinology |
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| PET 6376: Sport Nutrition | PET 6938: Dietary and Nutritional | PET 6381: Physiology of Neuromuscular |
| · | <u>Supplementation</u> | <u>Mechanisms</u> |
| PET 6521 Exercise Physiology | SPM 6106 Planning and Operating Facilities | PET 6388: Cardiovascular Physiology and |
| Instrumentation | for Sports and Fitness Programs | Stress Testing |
| PET 7387 Exercise Endocrinology | SPM 6726 Legal issues in Sport and Fitness | PET 6521 Exercise Physiology |
| | <u>Programs</u> | <u>Instrumentation</u> |
| PET 5766: Advanced Coaching Theory | SPM 6158 Leadership and Management in Sports Programs | PET 5766: Advanced Coaching Theory |
| PET 6347: Advanced Coaching Methods | SPM 5155 Introduction to Sports Administration | PET 6347: Advanced Coaching Methods |
| SPM 6106 Planning and Operating Facilities | SPM 5308 Marketing and Promoting Sports | SPM 6106 Planning and Operating Facilities |
| for Sports and Fitness Programs | and Fitness Programs | for Sports and Fitness Programs |
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CULMINATING EXPERIENCE (3 – 6 CREDIT HOURS)

PET 6908: Thesis (6 Cr)

PET 6946 Practicum, Clinical Practice (6 CR)

PET 6910: Problem Analysis (3 Cr)

THESIS OPTION

Students selecting the thesis option will take EDF 6401 Statistics for Educational Data, and enroll in:

Rev. 2011.11.15 R. Brice

PET 6908: Thesis (6 credit hours)

NON-THESIS OPTION

Students choosing the non-thesis option will perform a detailed literature review during enrollment in or take an advisor approved practicum.

- PET 6910: Problem Analysis (3 credit hours) or
- PET 6946: Practicum, Clinical Experience (3 credit hours)

EXAMINATIONS

Students selecting a Thesis option: A thesis proposal defense is required. The purpose of the proposal defense is to present the planned research and its foundations as a seminar to an interested audience of peers and advisory committee. The proposal will be distributed to all members of the advisory committee two weeks in advance of the defense. The advisor committee will vote to accept or reject the proposal. The thesis proposal defense must be passed a minimum of one semester preceding the oral defense (i.e. the proposal defense and the thesis defense cannot occur in the same semester).

<u>Students selecting a Non-Thesis option:</u> Non-thesis students must take a comprehensive examination no later than he semester preceding that of graduation. If a student fails the comprehensive examination a minimum of four weeks must elapse before reexamination. The comprehensive examination may be taken a maximum of two times.

APPLICATION REQUIREMENTS

For information on general UCF graduate admissions requirements that apply to all prospective students, please visit the Admissions section of the Graduate Catalog. Applicants must apply online. All requested materials must be submitted by the established deadline. In addition to the general UCF graduate application requirements, applicants to this program must provide:

- One official transcript (in a sealed envelope) from each college/university attended.
- Official, competitive GRE score taken within the last five years.
- Three letters of recommendation.
- Goal statement.
- Résumé / vita reflecting relevant experience.

Sport and Exercise Science MS

PROGRAM DESCRIPTION

The Master of Science in Sport and Exercise Science provides an in-depth study of applied human physiology and how it relates to athletic performance and health and wellness across the lifespan. Additional areas of study focus on sport nutrition, environmental physiology and exercise biochemistry. Students interested in coaching will receive a thorough understanding of the physiological development of the athlete, and combine this knowledge with appropriate principles of coaching learning to maximize athlete potential and develop realistic and attainable training goals. Students can choose among three tracks within the Sport and Exercise Science Program: Applied Exercise Physiology: Coaching and Sport Administration; or Sport Nutrition. The Master of Science in Sport and Exercise Science offers students the opportunity to develop knowledge and skills to pursue careers in research, coaching, athletic leadership, personal training, and within various industries in the health and exercise field. The program offers two tracks: Applied Exercise Physiology as well as Sport Leadership and Coaching.

The Applied Exercise Physiology track provides students with knowledge in health/wellness and applied physiology. Studies focus on preparing students to study elite athletic development, youth health and fitness, and using exercise and nutrition interventions to enhance quality of life for mature adults. Students will prepare for careers in research, personal training, and strength and conditioning.

The Sport Leadership and Coaching track prepares students to become more effective leaders and coaches by helping develop skills related to planning, organizing, managing, and evaluating, within the context of a group, department, or organization whose primary product or service is related to sport and/or physical activity. Program graduates have gone on to careers in areas such as coaching at all levels of sport, intercollegiate and interscholastic athletics administration, parks and recreation, fitness and health club leadership, and community sport centers.

Read More **

CURRICULUM

Total Credit Hours Required:

363 Credit Hours Minimum beyond the Bachelor's Degree

The Master of Science in Sport and Exercise Science offers a thesis and non-thesis option for students. Both the thesis and non-thesis options require a minimum of 36 credit hours. Students selecting the thesis option must receive a commitment from a faculty advisor for admission to the thesis track of the program. Both options require a minimum of 18 credit hours of course work at the 6000 level. Students in the M.S. program in Sport and Exercise Science have a choice of three tracks: Applied Exercise Physiology; Coaching and Sport Administration; or Sport Nutrition. Students in the Applied Exercise Physiology and Sport Nutrition Tracks will focus on

an academic curriculum that prepares them for careers in research, strength and conditioning, fitness training, and health and wellness. Students that choose the Coaching and Sport Administration Track will focus on an academic curriculum that prepares them for a career in coaching.

All students in the non-thesis track will be required to take an independent learning experience (PET 6910) that involves a detailed literature review specific to a subject area of the student's interest. This is done with the supervision of graduate faculty. Another option for students in the non-thesis track is to participate in a practicum (PET 6946) that will serve as their culminating graduate experience.

Each track in the Sport and Exeriese Science MS requires a minimum of 33 credit hours beyond the bachelor's degree, including 9 credit hours of core courses, and 24 credit hours of a specialization area. All students are required to complete a research report or thesis after the completion of their coursework and take a comprehensive examination.

INDEPENDENT LEARNING

All students are required to complete a research report or thesis after the completion of their coursework.

Application Requirements

For information on general UCF graduate admissions requirements that apply to all prospective students, please visit the <u>Admissions</u> section of the Graduate Catalog. Applicants must <u>apply online</u>. All requested materials must be submitted by the established deadline.

Applicants must choose a track in this program. Track(s) may have different requirements.

Application Deadlines

| Sport and Exercise Science MS | Fall Priority | Fall | Spring | Summer |
|--|---------------|--------|--------|--------|
| Domestic Applicants | Jan 15 | Jul 15 | Dec 1 | Apr 15 |
| International Applicants | Jan 15 | Jan 15 | Jul 1 | Nov 1 |
| International Transfer Applicants | Jan 15 | Mar 1 | Sep 1 | Dec 15 |

FINANCIALS

Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see <u>Funding for Graduate School</u>, which describes the types of financial assistance available at UCF and provides general guidance in planning your graduate finances. The <u>Financial Information</u> section of the Graduate Catalog is another key resource.

Fellowships

Fellowships are awarded based on academic merit to highly qualified students. They are paid to students through the Office of Student Financial Assistance, based on instructions provided by the College of Graduate Studies. Fellowships are given to support a student's graduate study and do not have a work obligation. For more information, see <u>Fellowships</u>, which includes descriptions of UCF fellowships and what you should do to be considered for a fellowship.

Coaching and Sport Administration Track*

TRACK DESCRIPTION

The Sport Leadership and Coaching and Sport Administration track in the Sport and Exercise Science MS program prepares students to become more effective leaders and coaches by helping develop skills related to planning, organizing, managing, and evaluating, within the context of a group, department, or organization whose primary product or service is related to sport and/or physical activity. Program graduates have gone on to careers in areas such as coaching at all levels of sport, intercollegiate and interscholastic athletics administration, parks and recreation, fitness and health club leadership, and community sport centers.

CURRICULUM

Total Credit Hours Required:

33-36 Credit Hours Minimum beyond the Bachelor's Degree

Required Courses—9_15 Credit Hours

- EDF 6481 Fundamentals of Graduate Research in Education (3 credit hours)
- PET 5355 Exercise and Health (3 credit hours)
- PET 5766 Advanced Coaching Theory (3 credit hours)
- PET 6347 Advanced Coaching Methods (3 credit hours)
- PET 6217 Program Design in Strength and Conditioning (3 credit hours)
- PET 6910 Problem Analysis* (3 credit hours)
- SPM 5155 Introduction to Sports Administration (3 credit hours)

* PET 6910 requires a research study and provides an independent learning experience for the program.

Elective Courses—18-12-15 Credit Hours

Students may select specialization courses from any of these areas with adviser's consent. Selected courses from other programs or colleges may also be substituted with adviser's consent.

- PET 5216 Motivational Aspects of Coaching (3 credit hours)
- PET 5495 Critical Issues: Ethics in Coaching and Sport (3 credit hours)
- PET 5495 Ethics in Coaching and Sport
- PET 6515C Assessment and Evaluation in Sport and Exercise Science
- PET 5766 Advanced Coaching Theory (3 credit hours)
- PET 6347 Advanced Coaching Methods (3 credit hours)

- PET 6252 Race and Gender in Coaching and Sport Leadership (3 credit hours)
- PET 6391 Training and Conditioning Techniques for Coaches (3 credit hours)
- PET 6391 Physiological Aspects of Sport and Training
- PET 6376 Sport Nutrition
- -PET 6938 Dietary and Nutritional Supplementation
- PET 6135 Historical Aspects of Sport and Physical Education (3 credit hours)
- SPM 5506 Financial Issues in Sports and Fitness (3 credit hours)
- SPM 5308 Marketing and Promoting Sports and Fitness Programs (3 credit hours)
- SPM 6106 Planning and Operating Facilities for Sports and Fitness Programs (3 credit hours)
- SPM 6158 Leadership and Management in Sports Programs (3 credit hours)
- SPM 6726 Legal Issues in Sports and Fitness Programs (3 credit hours)

Thesis Option—6 Credit Hours

• PET 6971 Thesis (6 credit hours)

Nonthesis Option—6 Credit Hours

- PET 6909 Research Report (3-6 credit hours)
- PET 6946 Practicum, Clinical Practice (3 credit hours)

Additional Program Requirements

A comprehensive examination is required of all students.

INDEPENDENT LEARNING

PET 6910 requires a research study, the independent learning experience for the program.

Application Requirements

For information on general UCF graduate admissions requirements that apply to all prospective students, please visit the Admissions section of the Graduate Catalog. Applicants must apply online. All requested materials must be submitted by the established deadline.

In addition to the general UCF graduate application requirements, applicants to this program must provide:

- One official transcript (in a sealed envelope) from each college/university attended.
- Official, competitive GRE score taken within the last five years.
- Two letters of recommendation.
- Résumé.

Application Deadlines

Sport Leadership and Coaching Fall Priority Fall Spring Summer

Domestic Applicants International Applicants

Jan 15

Jul 15 Dec 1 Apr 15

Jan 15

Jan 15 Jul 1 Nov 1

International Transfer Applicants Jan 15

Mar 1 Sep 1 Dec 15

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Applied Exercise Physiology Track

TRACK DESCRIPTION

The Applied Exercise Physiology Track in the Sport and Exercise Science graduate program provides students with knowledge in health/wellness and applied physiology. Focus of study is on preparing students to study elite athletic development, youth health and fitness, and using exercise and nutrition interventions to enhance quality of life for mature adults. Students will prepare for careers in research, personal training, and strength and conditioning. The Applied Exercise Physiology track in the Sport and Exercise Science MS program provides students with knowledge in health/wellness and applied physiology. Studies focus on preparing students to study elite athletic development, youth health and fitness, and using exercise and nutrition interventions to enhance quality of life for mature adults. Students will prepare for careers in research, personal training, and strength and conditioning.

Read More **

CURRICULUM

Total Credit Hours Required:

366 Credit Hours Minimum beyond the Bachelor's Degree

Required Courses—69 Credit Hours

- EDF 6481 Fundamentals of Graduate Research in Education (3 credit hours)
- PET 6910 Problem Analysis* (3 credit hours)
- PET 5355 Exercise and Health (3 credit hours)

Required Core Courses- 9 Credit Hours

- PET 6XXX: Program Design in Strength and Conditioning (3 credit hours)
- PET 6391: Physiological Aspects of Sport and Training (3 credit hours)
- PET 6515C: Assessment and Evaluation in Sport and Exercise Science (3 credit hours)

* PET 6910 requires a research study that provides an independent learning experience for the program.

Elective Courses—18 Credit Hours

Students that select the thesis option must take 15 credit hours in electives. Students that select the non-thesis option must take 18 credit hours in electives. All electives are selected in conjunction with the student's graduate advisor or the graduate coordinator. Students can choose from the following courses:

Students may select specialization courses from any of these areas with advisor's consent. Selected courses from other programs or colleges may also be substituted with advisor's consent.

ATR 5144 Advanced Human Injuries (3 credit hours)

- PET 6XXX: Sport Nutrition (3 credit hours)
- EDF 6401: Statistics for Educational Data HSC 5317 Health Methods: Teaching Strategies and Interventions (3 credit hours)
- PET 6089 Personal and Organizational Wellness (3 credit hours)

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- PET 6096 Wellness Development in Children (3 credit hours)
- PET 6217 Peak Performance in Sports (3 credit hours)
- PET 6335 Kinesiology (3 credit hours)
- PET 6357C Environmental Perturbation and Human Performance (3 credit hours)
- PET 6366 Exercise, Nutrition and Weight Control (3 credit hours)
- PET 6381 Physiology of Neuromuscular Mechanisms (3 credit hours)
- PET 6388 Cardiovascular Physiology (3 credit hours)
- PET 6521 Exercise Physiology Instrumentation (3 credit hours)
- PET 6690: Exercise Prescription for Special Populations (3 credit hours)
- PET 6938: ST: Dietary and Nutritional Supplementation (3 credit hours)
- PET 7XXX Exercise Endocrinology PET 6505 Wellness Technology in Physical Education (3 credit hours)
- PET 7535: Research & Experimental Design in Exercise Physiology 93 credit hours)
- PET 6690 Exercise Testing and Prescription for Special Populations (3 credit hours)

Thesis Option—6 Credit Hours

Students selecting the thesis option will take EDF 6401-Statistics for Educational Data, and enroll in:

• PET 6971 Thesis (6 credit hours)

Nonthesis Option—3 Credit Hours

- PET 6910 Problem Analysis* (3 credit hours) or
- PET 6946 Practicum, Clinical Practice (3 credit hours)

Thesis Option—6 Credit Hours

• PET 6971 Thesis (6-9 credit hours)

Nonthesis Option—6 Credit Hours

- PET 6909 Research Report (3-6 credit hours)
- PET 6946 Practicum, Clinical Practice (3 credit hours)

Additional Program Requirements

A comprehensive examination is required of all students.

INDEPENDENT LEARNING

 $\underline{*}$ PET 6910 requires a research study, the independent learning experience for the program.

Application Requirements

For information on general UCF graduate admissions requirements that apply to all prospective students, please visit the <u>Admissions</u> section of the Graduate Catalog. Applicants must <u>apply online</u>. All requested materials must be submitted by the established deadline.

In addition to the general UCF graduate application requirements, applicants to this program must provide:

- One official transcript (in a sealed envelope) from each college/university attended.
- Official, competitive GRE score taken within the last five years.
- Two letters of recommendation.
- Résumé.

Application Deadlines

| Applied Exercise Physiology | Fall Priority | Fall | Spring | Summer |
|--|----------------------|--------|---------------|--------|
| Domestic Applicants | Jan 15 | Jul 15 | Dec 1 | Apr 15 |
| International Applicants | Jan 15 | Jan 15 | Jul 1 | Nov 1 |
| International Transfer Applicants | Jan 15 | Mar 1 | Sep 1 | Dec 15 |

FINANCIALS

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Fellowships

Fellowships are awarded based on academic merit to highly qualified students. They are paid to students through the Office of Student Financial Assistance, based on instructions provided by the College of Graduate Studies. Fellowships are given to support a student's graduate study and do not have a work obligation. For more information, see <u>Fellowships</u>, which includes descriptions of UCF fellowships and what you should do to be considered for a fellowship.

Sport Nutrition Track

TRACK DESCRIPTION

The Sport Nutrition track in the Sport and Exercise Science MS program prepares students to advance their knowledge in nutritional aspects of sports performance and nutritional intervention. Course of study will guide students in issues relating to industry regulation of sport supplements, efficacy of various dietary and nutritional supplements, and the effect that nutritional intervention may have on all populations including the elderly and children. This track may have important relevance for registered dieticians exploring a graduate focus on sport supplementation. In addition, students graduating from this track may have career opportunities in the Sport Nutrition Industry, or working with sport teams and/or athletes.

CURRICULUM

Total Credit Hours Required:
36 Credit Hours Minimum beyond the Bachelor's Degree

Required Courses—6 Credit Hours

- EDF 6481 Fundamentals of Graduate Research in Education (3 credit hours)
- PET 5355: Exercise and Health (3 credit hours)

Core Courses—9 Credit Hours

• PET 6XXX: Sport Nutrition (3 credit hours)

• PET 6938: Dietary and Nutritional Supplementation (3 credit hours)

• PET 6362: Exercise, Nutrition and Weight Control (3 credit hours)

Elective Courses—15-18 Credit Hours

Students selecting the thesis option must take 15 credit hours in electives. Students that select the non-thesis option must take 18 credit hours in electives. All electives are selected in conjunction with the student's graduate advisor or the graduate coordinator. Students can choose from the following courses:

• EDF 6401: Statistics for Educational Data (3 credit hours)

• PET 6XXX: Program Design in Strength and Conditioning (3 credit hours)

• PET 6XXX: Physiological Aspects of Sport and Training (3 credit hours)

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| • | PET 6357C: | Environmental Perturbations and Human Performance (3 credit hours) |
| • | PET 6381: | Physiology of Neuromuscular Mechanisms (3 credit hours) |
| • | PET 6388: | Cardiovascular Physiology (3 credit hours) |
| • | PET 6515C | Assessment and Evaluation in Sport and Exercise Science (3 credit hours) |
| • | PET 6521 | Exercise Physiology Instrumentation (3 credit hours) |
| • | PET 6690: | Exercise Prescription for Special Populations (3 credit hours) |
| • | PET 7XXX | Exercise Endocrinology (3 credit hours) |
| • | PET 7535: | Research & Experimental Design in Exercise Physiology (3 credit hours) |

Thesis Option—6 Credit Hours

Students selecting the thesis option will take EDF 6401-Statistics for Educational Data, and enroll in:

• PET 6971 Thesis (6 credit hours)

Nonthesis Option—3 Credit Hours

- PET 6910 Problem Analysis* (3 credit hours) or
- PET 6946 Practicum, Clinical Practice (3 credit hours)

Additional Program Requirements

A comprehensive examination is required of all students.

INDEPENDENT LEARNING

* PET 6910 requires a research study, the independent learning experience for the program.

Application Requirements

For information on general UCF graduate admissions requirements that apply to all prospective students, please visit the <u>Admissions</u> section of the Graduate Catalog. Applicants must <u>apply online</u>. All requested materials must be submitted by the established deadline.

In addition to the general UCF graduate application requirements, applicants to this program must provide:

- One official transcript (in a sealed envelope) from each college/university attended.
- Official, competitive GRE score taken within the last five years.
- Three letters of recommendation.
- Goal Statement.
- Résumé / vita reflecting relevant experience.

Application Deadlines

Sport Leadership and Coaching Fall Priority Fall Spring Summer

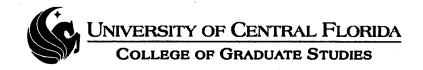
| Domestic Applicants | Jan 15 | Jul 15 Dec 1 | Apr 15 |
|--------------------------------|------------|--------------|--------|
| International Applicants | Jan 15 | Jan 15 Jul 1 | Nov 1 |
| International Transfer Applica | nts Jan 15 | Mar 1 Sep 1 | Dec 15 |

FINANCIALS

Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see <u>Funding for Graduate School</u>, which describes the types of financial assistance available at UCF and provides general guidance in planning your graduate finances. The <u>Financial Information</u> section of the Graduate Catalog is another key resource.

Fellowships

Fellowships are awarded based on academic merit to highly qualified students. They are paid to students through the Office of Student Financial Assistance, based on instructions provided by the College of Graduate Studies. Fellowships are given to support a student's graduate study and do not have a work obligation. For more information, see <u>Fellowships</u>, which includes descriptions of UCF fellowships and what you should do to be considered for a fellowship.



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Program Action Request Form

This form is to be used to revise, add, suspend, or inactivate degree programs, tracks, or certificate programs. A new form must be used for each program, track, or certificate.

PLEASE NOTE: The deadline for new tracks or certificates is <u>February I of each year</u>. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are <u>due by March 15</u>. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy <u>showing changes</u> (use Track Changes in Word).

College/Unit(s) Submitting Proposal: College of Engineering and Computer Science

Proposed Effective Term/Year: Summer 2012

Unit(s) Housing Program: Industrial Engineering and Management Systems

Name of program, track, and/or certificate: Engineering Management MSEM

Description of program (this description will show up in the graduate catalog copy):

DESCRIPTION

The Engineering Management MSEM program focuses on effective decision-making in engineering and technological organizations. Addressing the needs of engineers and scientists moving into management positions, engineering management complements their technical backgrounds with the human aspects, organizational and financial issues, project considerations, resource allocation, and the extended analytical tools required for effective decision-making and program management. This program is designed for technically qualified individuals who plan to assume a management role in project or program-oriented environments in industry or government. It provides the analytical, organizational, and managerial skills to bridge the gap between a technical specialty and technical management.

The Industrial Engineering programs are structured to support the emergence of Central Florida as a national center of high technology as well as supporting the diverse service industries in the region and throughout the nation.

Additional information can be found at www.iems.ucf.edu.

International students may only take one course per semester in a totally online format while attending UCF on a F-1 visa. Courses in this program can be taken in mixed mode for international students at UCF or fully online for international students who are not on visas. If you have questions, please consult the International Service Center at www.intl.ucf.edu.

CURRICULUM

Total Credit Hours Required:

30 Credit Hours Minimum beyond the Bachelor's Degree

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This program can be taken entirely through the Florida Engineering Educational Delivery System (FEEDS), which provides video-streamed versions of classes over the Internet.

The Engineering Management MSEM program requires an undergraduate degree in Engineering or a closely related discipline. Students with undergraduate degrees outside of industrial engineering may be required to take additional prerequisite courses.

The program offers thesis or nonthesis options with each requiring 30 credit hours of courses. Thesis option students take 12 credit hours of required Master Core courses, 9 credit hours of track courses, 6 thesis credit hours, and 3 credit hours of electives. They must also complete an independent research project and write and successfully defend their thesis. Nonthesis option students take 12 credit hours of required Master Core courses, 9 credit hours of concentration courses, and 9 credit hours of electives. They must also pass a comprehensive oral examination at the end of their program of study.

Research studies are required in one or more courses. The research study and report will focus on reviewing and analyzing contemporary research in the profession in order to help students acquire knowledge and skills pertaining to research-based best practices.

An approved program of study must be developed in consultation with the graduate program director. All programs of study require 24 hours of core and elective course work, exclusive of thesis hours. At least one-half of the credit hours of all courses (including thesis hours) in a master's program of study must be at the 6000 level or higher.

Students on assistantships must take 9 credit hours per semester to satisfy the university's requirement for full-time status. Most students working full time take 6 credit hours per semester. At that rate, the program can be completed in 6 semesters or less. However, students with more time available and with an early start on a thesis, if applicable, can finish the program in 3 semesters.

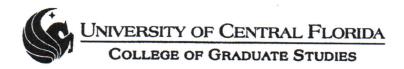
Prerequisites - ADDED LIST OF PREREQS.

- Computer programming capability. Proficiency with MS Office expected. C++, Visual BASIC, or Java recommended.
- Mathematics through Calculus II (MAC 2312)
- STA 3032 or equivalent
- Others, as needed by specific courses
- For MSIE degree: BSIE degree is required

Master Core Courses (12 Credit hours))

- ESI 5219: Engineering Statistics
- EIN 5140 Project Engineering
- ESI 6551C: Systems Engineering
- EIN 6357: Advanced Engineering Economic Analysis

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Concentration Courses (9 Credit Hours)

- EIN 5108 The Environment of Technical Organizations
- EIN 6xx Innovation in Engineering Design
 - EIN 6182 Engineering Management

Thesis Option—9 Credit Hours

Thesis students must complete an independent research project and then write and successfully defend their thesis. Furthermore, an additional 3 credit hours of electives are required beyond the 9 credit hours of concentration courses described above.

- EIN 6971 Thesis (6 credit hours)
- Elective (3 credit hours)

Nonthesis Option—9 Credit Hours

Nonthesis students must take 9 additional credit hours of electives beyond the 9 credit hours of concentration courses described above.

• Electives (9 credit hours)

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Comprehensive Examination

Nonthesis students must successfully pass an oral comprehensive examination to fulfill degree requirements. Please see the program director for further details.

Equipment Fee

Students in the Industrial Engineering MS program pay a \$90 equipment fee each semester that they are enrolled. For part-time students, the equipment fee is \$45 per semester.

Independent Learning

The Independent Learning Requirement is met by successful completion of a master's thesis, EIN 6182 Engineering Management for nonthesis students, or EIN 6182 and EIN 6946 Internship for PSM students.

APPLICATION REQUIREMENTS

For information on general UCF graduate admissions requirements that apply to all prospective students, please visit the Admissions section of the Graduate Catalog. Applicants must apply online. All requested materials must be submitted by the established deadline.

The College of Engineering and Computer Science encourages prospective applicants to complete a pre-application

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form (www.cecs.ucf.edu/preapp) before completing the online application for graduate admission. In addition to the general UCF graduate application requirements, applicants to this program must provide: One official transcript (in a sealed envelope) from each college/university attended. A bachelor's degree in Engineering or a closely related discipline. Two letters of recommendation. Résumé. Statement of educational, research, and professional career objectives. Faculty members may choose to conduct face-to-face or telephone interviews before accepting an applicant into their research program. **FINANCIALS** Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see Student Finances, which describes the types of financial assistance available at UCF and provides general guidance in planning your graduate finances. The Financial Information section of the Graduate Catalog is another key resource. **Fellowships** Fellowships are awarded based on academic merit to highly qualified students. They are paid to students through the Office of Student Financial Assistance, based on instructions provided by the College of Graduate Studies. Fellowships are given to support a student's graduate study and do not have a work obligation. For more information, see Fellowships, which includes descriptions of UCF fellowships and what you should do to be considered for a fellowship. **CONTACT INFO** Ahmad Elshennawy PhD Professor ahmad.elshennawy@ ucf.edu Telephone: 407-823-2204 Engineering 2, Room 430 Completely online x Mixed delivery Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?) N/A

UCF College of Graduate Studies – P.O. Box 160112, Orlando, FL 32816-0112

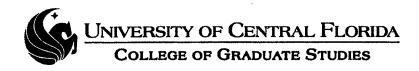
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Page | 4

Application requirements: (Please specify if you have different application requirements for the track than for the

| program? Will you admit directly to the track?) |
|---|
| N/A |
| Program Director(s) and contact information: (name, email, phone, campus address, program website address) Dr. Ahmad Elshennawy, <u>DrE@ ucf.edu</u> , 312 Engineering 2, 407–823-2204 |
| Dr. Anmad Eisnermawy, Dr. Lity Buriedt, 312 Engineering 24 107 |
| Please check one: This action affects a: x Program Track Certificate |
| Please check one: This action is a(n): |
| Addition. Please proceed to Part A. |
| Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A: |
| ☐ Inactivation |
| Temporary Suspension of Admissions. Give Length of Suspension: |
| |
| |
| Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment |
| Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. Students active in the program are eligible to complete the program under the appropriate criteria and an appropriate teach-out plan is required. The program will be removed from the catalog as of the approved term. |
| |
| If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it. |

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Signature Page

| REC | OMMEN | IDATI | ONS | | |
|----------|---------|---------|--------|--|---------------------------------------|
| X | Yes | | No | Department Chair: | Date: 3/12/12_ |
| a | Yes | | No | College Curriculum Committee Chair: Charles H July | Date: 3/12//2 |
| U | Yes | | No | College Dean or Unit Head: | Date: 3/13/12 |
| | Yes | | No | Chair or GSC: | Date: |
| | Yes | | No | Dean, College of Graduate Studies: | · · · · · · · · · · · · · · · · · · · |
| | | | | · | Date: |
| APP | ROVAL | | | , | 4 |
| Prov | ost and | Vice Pr | esiden | t for Academic Affairs: | Date: |

Distribution: After approval is received from the Provost, distribution will be to:

Department(s); College; Registrar; Associate Registrar; Institutional Research; Academic Services; Faculty Senate;

University Analysis and Planning Support; College of Graduate Studies



Part A - For <u>additions or revisions</u> of programs, tracks or certificates

Brief Statement of Program Change and rationale: (Please indicate the change, the rationale for the change, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate. If there are changes to the credit hours of the program, required courses or other requirements, please state those changes. Remember to attach the catalog copy showing changes, using Track Changes in Word.)

| MSEM is a new degree that was approved for delivery through the De Management Systems. | epartment of Industrial Engineering and |
|---|--|
| Will students be moved from an existing program, track, or certificate into this x Yes \square No | is new program, track, or certificate? |
| If yes, state the name of the program or track where students are currently enrol | lled and provide a list of students if possible: |
| Industrial Engineering MS, Engineering management Track | |
| Will students have the option to stay in their existing program, track, or certifi | icate? X Yes No |
| Name Change | er en |
| Are you changing the name of an existing program, track, or certificate? | Σ Yes □ No |
| If yes, provide the new name of the program, track, or certificate: Engineering P | Management MSEM |
| Provide the name of the current program, track, or certificate: Industrial Engine | eering MS, Engineering Management Tra |
| When is the name change effective? Please note: A name change will apply to the recoreadmitted or newly admitted into this program as of the effective date of this change. Sur | ord of all students who are currently enrolled, |
| Will students have the option to stay in their existing program, track, or certific | cate? X Yes 🗆 No |
| f you are requesting a CIP Code change for an existing program, track, or certi | ificate, please provide: |
| old CIP: | |
| new CIP: | , |
| | |
| f a name change is your only revision, stop here. Otherwise, complet | te the rest of Part A. |
| | |
| | |
| art A - Continued | |



paragraph of their credentials.)

Waldemar Karwowski, Ph.D., Professor and Chair, Texas Tech: IE, Human System Integration, Ergonomics/Human Engineering Ahmad K. Elshennawy, Ph.D., Professor & Associate Chair, Penn State: IE, Quality and Reliability, Production Systems Robert L. Hoekstra, Ph.D., Associate Professor, Cincinnati: Manufacturing Engineering, Engineering Management Timothy G. Kotnour, Ph.D., Associate Professor, Virginia Tech: Engineering Management, IE Mansooreh Mollaghasemi, Ph.D., Associate Professor, University of Louisville: IE, Simulation, OR, Decision Analysis Dima Nazzal, Ph.D., Associate Professor, Georgia Tech: OR, Industrial Engineering, Simulation & Modeling Luis Rabelo, Ph.D., Associate Professor, University of Missouri: Production/Manufacturing Systems, IE, Management William Thompson, Ph.D., Associate Professor, Arizona State: Engineering management, IE, Production Systems, Quality

| f so, how? | | | |
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| | | , | <u> </u> |
| applicable, provide a w will participate in the pr | ritten agreement (email is fine) from ogram, track, or certificate. Please | n all involved units that they are in attach the correspondence and als | support of, will provide course to list the units here. |
| /A | | | |
| ** | | | |
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| n addition, provide a s | tatement of who is likely to enroll : | and why Please state if there is lice | |
| n addition, provide a s on this education, etc. Al | tatement of who is likely to enroll a so, complete the following table. | and why. Please state if there is lice | ensure or certification that depe |
| n addition, provide a son this education, etc. Al | tatement of who is likely to enroll a so, complete the following table. | and why. Please state if there is lice | ensure or certification that depe |
| in this education, etc. Al | tatement of who is likely to enroll a so, complete the following table. | and why. Please state if there is lice | ensure or certification that depe |
| in this education, etc. Al | tatement of who is likely to enroll a so, complete the following table. | and why. Please state if there is lice | ensure or certification that depe |
| in this education, etc. Al | tatement of who is likely to enroll a so, complete the following table. | and why. Please state if there is lice | ensure or certification that depe |
| in this education, etc. Al | tatement of who is likely to enroll a so, complete the following table. Year I | and why. Please state if there is lice | ensure or certification that depe |
| in this education, etc. Al | so, complete the following table. | | |

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

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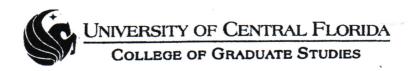
| Part A - Contin | ued | | | | |
|------------------------|----------------------------|-----------------------|---|--------------------------------------|--|
| f an addition or th | ere are substantial l | REVISIONS to exist | ng tracks or certificates | , please complete th | ne following table or |
| папсіаї зиррог с. (Зре | No. assistantship students | Source of funds | No. fellowship students (specify fellowship) | No. tuition remissions | Source of fund |
| Year I | | | | | |
| Year 2 | | | | <u> </u> | |
| Year 3 | | ı | | | |
| | | | | | |
| hecklist of iten | ns to be provided | d: | | | |
| Electronic gradu | ate catalog copy for | additions; track ch | anges included if the | re are revisions. | (required) |
| | | | be necessary to imp | | · · · |
| - | consultation with o | | | Torrione the Char | ses. (required) |
| If an addition, li | ist of I-3 students ar | nd I-3 faculty for pr | ofiles in the graduate od take photos). You | catalog (provide may provide drai | email address so t copy of profiles |
| If an addition, w | hat disciplines does | this program, trac | k or certificate belon information will be u | g to? What other | UCF graduate |

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Part B - For inactivations or suspensions of programs, tracks, or certificates

| Are students currently enrolled in the program? Yes No If yes, number of current students: Please specify the intended time period of inactivation or suspension: | | | | | |
|---|---|--|---------------------------------------|---------------------------|--|
| | | | | | |
| | | | | · | |
| Sample teach out plan: En | ter the terms and courses the | hat will be taught for each Spring 2011 | term throughout the last Summer 2012 | | |
| | | | Summer 2012 | Fall 2012 | |
| | | | | | |
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| | | | - | | |
| <u> </u> | to be provided: ate course action requeses asultation with other unit | | y to implement the ch | anges. (required) | |
| | | | VP 009 | Rev. 08/25/2010 Page 10 | |



RECEIVED MAR 1 5 P.M.

Program Action Request Form

This form is to be used to revise, add, suspend, or inactivate degree programs, tracks, or certificate programs. A new form must be used for each program, track, or certificate.

PLEASE NOTE: The deadline for new tracks or certificates is <u>February I of each year</u>. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are <u>due by March I5</u>. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy <u>showing changes</u> (use Track Changes in Word).

College/Unit(s) Submitting Proposal: College of Engineering and Computer Science

Proposed Effective Term/Year: Summer 2012

Unit(s) Housing Program: Industrial Engineering and Management Systems

Name of program, track, and/or certificate: Engineering Management MSEM - PSM: Professional

Engineering Management Track

Description of program (this description will show up in the graduate catalog copy):

Professional Engineering Management Track

TRACK DESCRIPTION

The Professional Engineering Management (PEM) track is a cohort-based program where specific cohorts are established periodically based upon needs of industry. The program is designed to be a lock-step, cohort-based program that can be completed in approximately 18 to 20 months.

For information about the start of the next cohort please contact the IEMS Graduate Coordinator Dr. Elshennawy (ahmad.elshennawy@ucf.edu) or the Program Director Dr. Kotnour (timothy.kotnour@ucf.edu).

The Professional Engineering Management (PEM) track in the Engineering Management MSEM program focuses on effective decision-making and successful project delivery in engineering and technological organizations. The program

is tailored to the needs of the experienced, working professional.

Curriculum

Total Credit Hours Required:

30 Credit Hours Minimum beyond the Bachelor's Degree

The Engineering Management MSEM program requires an undergraduate degree in Engineering or a closely related discipline. Students with undergraduate degrees outside of industrial engineering may be required to take additional prerequisite courses.

Research studies are required in one or more courses. The research study and report will focus on reviewing and analyzing contemporary research in the profession in order to help students acquire knowledge and skills pertaining

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to research-based best practices.

An approved program of study must be developed in consultation with the graduate program director. All programs of study require 24 hours of core and elective course work, exclusive of thesis hours. At least one-half of the credit hours of all courses (including thesis hours) in a master's program of study must be at the 6000 level or higher.

Students on assistantships must take 9 credit hours per semester to satisfy the university's requirement for full-time status. Most students working full time take 6 credit hours per semester. At that rate, the program can be completed in 6 semesters or less. However, students with more time available and with an early start on a thesis, if applicable, can finish the program in 3 semesters.

Prerequisites

Mathematics through Calculus II (MAC 2312)

Master Core Courses (12 Credit hours)

- ESI 5219: Engineering Statistics
- EIN 5140 Project Engineering
- ESI 6551C: Systems Engineering
- EIN 6357: Advanced Engineering Economic Analysis

Concentration Courses (9 Credit Hours)

- EIN 5108 The Environment of Technical Organizations
- EIN 6xxx Innovation in Engineering Design
- EIN 6182 Engineering Management

Restricted Electives (9 Credit Hours)

Independent Learning

The Independent Learning Requirement is met by successful completion of the research studies required in individual courses, EIN 6182 Engineering Management, and the capstone project that requires that students integrate material from all the courses in their program.

Comprehensive Examination

Students must successfully pass an oral comprehensive examination to fulfill degree requirements. Please see the program director for further details.

Equipment Fee

Students in the program pay a \$90 equipment fee each semester that they are enrolled. For part-time students, the equipment fee is \$45 per semester.

Application Requirements

For information on general UCF graduate admissions requirements that apply to all prospective students, please visit the <u>Admissions</u> section of the Graduate Catalog. Applicants must <u>apply online</u>. All requested materials must be submitted by the established deadline.

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In addition to the general UCF graduate application requirements, applicants to this program must provide:

- One official transcript (in a sealed envelope) from each college/university attended. Applicants applying to
 this program who have attended a college/university outside the United States must provide a course-bycourse credential evaluation with GPA calculation. Credential evaluations are accepted from World Education
 Services (WES) or Josef Silny and Associates, Inc. only.
- A bachelor's degree in Engineering or a closely related discipline.
- Two letters of recommendation.
- Résumé.
- Statement of educational, research, and professional career objectives.

Faculty members may choose to conduct face-to-face or telephone interviews before accepting an applicant into their research program.

Contact Info

Timothy Kotnour, PhD Professor timothy.kotnour@ucf.edu Telephone: 407-823-5645 Engineering 2, Room 416

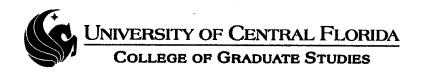
| DELIVERY - Will program be delivered: Face to | o face Completely online x Mixed delivery |
|--|---|
| Admissions deadlines: (Please specify if you have a diff | • |
| N/A | |
| Application requirements: (Please specify if you have or program? Will you admit directly to the track?) | lifferent application requirements for the track than for the |
| N/A | |
| Program Director(s) and contact information: (name, e | mail, phone, campus address, program website address) |
| Timothy Kotnour, <u>timothy.kotnour@ucf.edu</u> , 416 Eng | gineering 2, 407-823-5645 |

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| Please check one: This action affects a: \Box | Program x | Track \square | Certificate |
|---|---|--|---|
| Please check one: This action is a(n): | | | |
| Addition. Please proceed to Part A. | | | |
| Revision. If a revision applies to multiple | tracks, please li | st them here a | nd then proceed to Part A: |
| | | | • |
| | | | |
| ☐ Inactivation | x * | | |
| ☐ Temporary Suspension of Admissions. Give | Length of Suspens | ion: | |
| | | | |
| Temporary suspension of admissions: The program | m will be removed fro | m the online applic | ation. A notation will be entered in the graduate |
| catalog indicating the length of the suspension of admiss | ions. Currently enroll | ed students will no | t experience any issues with continued enrollment |
| Inactivation: Admissions will be suspended for new steprogram are eligible to complete the program under the removed from the catalog as of the approved term. | udents and the progra e appropriate criteria | am will be removed and an appropriate | from the online application. Students active in the teach-out plan is required. The program will be |
| If you checked inactivation or you are and complete it. | e temporarily | suspending a | dmissions, please go to Part B |

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| Signature | Page |
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|-----------|------|

| REC | OMME | NDATIO | ONS | | |
|------|---------|---------|---------|---|--|
| M | Yes | | No | Department Chair: | Date: 3/12/12 |
| | Yes | | No | College Curriculum Committee Chair: Thathe H. Jully | Date: 3/12/12 |
| 风 | Yes | | No | College Dean or Unit Head: M. Aim | Date: 3/13/12 |
| | Yes | | No | Chair or GSC: | Date: |
| | Yes | | No | Dean, College of Graduate Studies: | , |
| | | | | | Date: |
| APP | ROVAL | | | , | |
| Prov | ost and | Vice Pr | esiden: | t for Academic Affairs: | Date: |
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Distribution: After approval is received from the Provost, distribution will be to:

Department(s); College; Registrar; Associate Registrar; Institutional Research; Academic Services; Faculty Senate;

University Analysis and Planning Support; College of Graduate Studies



Part A - For additions or revisions of programs, tracks or certificates

Brief Statement of Program Change and rationale: (Please indicate the change, the rationale for the change, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate. If there are changes to the credit hours of the program, required courses or other requirements, please state those changes. Remember to attach the catalog copy showing changes, using Track Changes in Word.)

| Need to create an "Off Campus" track to facilitate the tracking of students in the off-campus cohort based offering. |
|--|
| Will students be moved from an existing program, track, or certificate into this new program, track, or certificate? |
| ×Yes □ No |
| If yes, state the name of the program or track where students are currently enrolled and provide a list of students if possible: |
| Master of Science in Engineering Management MSEM - PSM |
| Will students have the option to stay in their existing program, track, or certificate? \times Yes \square No |
| Name Change |
| Are you changing the name of an existing program, track, or certificate? \Box Yes x No |
| If yes, provide the new name of the program, track, or certificate: |
| Provide the name of the current program, track, or certificate: |
| When is the name change effective? Please note: A name change will apply to the record of all students who are currently enrolled, readmitted or newly admitted into this program as of the effective date of this change. |
| Will students have the option to stay in their existing program, track, or certificate? Yes No |
| If you are requesting a CIP Code change for an existing program, track, or certificate, please provide: |
| old CIP: |
| new CIP: |
| |
| f a name change is your only revision, stop here. Otherwise, complete the rest of Part A. |
| |
| |
| Part A - Continued |
| Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief |
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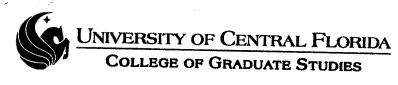
paragraph of their credentials.)

Waldemar Karwowski, Ph.D., Professor and Chair, Texas Tech: IE, Human System Integration, Ergonomics/Human Engineering Ahmad K. Elshennawy, Ph.D., Professor & Associate Chair, Penn State: IE, Quality and Reliability, Production Systems Christopher Geiger, Ph.D., Assistant Professor, Purdue University: Production Systems, IE, Simulation, OR Robert L. Hoekstra, Ph.D., Associate Professor, Cincinnati: Manufacturing Engineering, Engineering Management Timothy G. Kotnour, Ph.D., Professor, Virginia Tech: Engineering Management, IE Mansooreh Mollaghasemi, Ph.D., Associate Professor, University of Louisville: IE, Simulation, OR, Decision Analysis Dima Nazzal, Ph.D., Associate Professor, Georgia Tech: OR, Industrial Engineering, Simulation & Modeling Luis Rabelo, Ph.D., Associate Professor, University of Missouri: Production/Manufacturing Systems, IE, Management Charles H. Reilly, Ph.D., Professor, Purdue University: OR, Industrial Engineering, Statistics William Thompson, Ph.D., Associate Professor, Arizona State: Engineering management, IE, Production Systems, Quality

| If so, how? | | | , , , , , , , , , , , , , , , , , , , | on of a program, track or certificate |
|--|---|--|---|--|
| If there will be a cha that best suit their n | | ly be a better one. The | re will more flexibility that allow | rs the students to select the courses |
| | | The state of the s | all involved units that they are intach the correspondence and also | n support of, will provide courses to so list the units here. |
| N/A | | | | |
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| If an addition, providupon this education, e | | | nd why. Please state if there is lic | ensure or certification that depends |
| N/A | - | | | |
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| Headcount | | | | |

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

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| | inued | | | | |
|------------------------------------|--|---|--|---------------------------------------|--|
| an addition or nancial support: (S | there are substantial in pecify all forms of suppo | REVISIONS to exist rt – assistantships, fell | ing tracks or certificates owships, and tuition ren | , please complete th | ne following table or |
| | No. assistantship students | Source of funds | No. fellowship students (specify fellowship) | No. tuition remissions | Source of fund |
| ear I | , | | · | | |
| ear 2 | | <u>,</u> | | | |
| ear 3 | | , | | | , |
| Attach all app | luate catalog copy for propriate course actio | n requests that wil | be necessary to imp | lement the chang | ges. (required) |
| | | | | lement the chang | ges. (required) |
| If an addition, | ng consultation with o list of I-3 students an lies can contact them | d I-3 faculty for pr | ofiles in the graduate | catalog (provide may provide draf | email address so t copy of profiles |
| If an addition, | what disciplines does | related to it? This | k or certificate belong information will be us atalog. | g to? What other sed to provide ad | UCF graduate |



Part B - For inactivations or suspensions of programs, tracks, or certificates

| Are students currently er | nrolled in the program? |] Yes □ No | | |
|---|--|---|---|--|
| If yes, number of current s | students: | | | |
| Please specify the intende | ed time period of inactivati | on or suspension: | | |
| how they can finish the prowhen courses will be offer | icate is being inactivated or ogram or where students w red to enable students to fin n date will be, whether stude | ill be placed if moving to a ship ish. Specify whether students | another program. The "tea ents will remain in the exis | ach out" plan should specify ting program to finish, and |
| | A MANAGEMENT | | | |
| Sample teach out plan: Ent | er the terms and courses th | at will be taught for each | term throughout the last | semester. |
| Summer 2011 | Fall 2011 | Spring 2011 | Summer 2012 | Fall 2012 |
| | | | | Beer to the first or the first of the second |
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| Checklist of items t | o be provided: | | | |
| Attach all appropri | ate course action reques | ts that will be necessa | ry to implement the ch | anges. (required) |
| ☐ Emails showing con | sultation with other uni | ts. (if applicable) | | |
| | • | | · | |
| | | | VP 009 | Rev. 08/25/2010 Page 9 |
| | <u> </u> | | | £ |

Graduate Council Curriculum Committee Course Agenda for 03-21-2012

Revised

College of Sciences Special Topics

MAP 6938 Sect 01 COS-Mathematics 3(3,0)

ST:Hyperasymptotics: PR: MAP 5514, or MAP5336, or CI. Poincare's asymptotic series, Carrier's rule, optimal truncation, Dyson'd change-of-sign, exponentially small terms in; asymptotic series, Darboux's principle, Dingle's resurgence functions, Stokes phenomenon, nonstandard analysis. *Occasional*.

30 character abbreviation: **ST:Hyperasymptotics**

Rationale: Very topical area in research.

Discussion with others: N/A

College of Sciences Course Action Deletions

INP 7075 COS-Psychology 3(3,0)

Current Theory and Research in Industrial and Organizational Psychology: PR: Graduate standing in the PhD program in Industrial and Organizational Psychology or C.I. Critical analysis of current theory and research published in the periodical scientific literature germane to the field of Industrial and Organizational Psychology. May be used in the degree program a maximum of 5 times. *Fall, Spring*. Rationale: Course no longer offered by Department of Psychology.

<u>Discussion with others:</u> Not listed in any other graduate program catalog description at UCF.

Effect on majors: This course is not used as a prerequisite.

College of Sciences Course Action Revisions

 PCB 6046C
 Advanced Ecology
 5(3,4)

 PCB 6046
 3(3,0)

PR: PR: Graduate standing in Biology, admission to the M.S. in Biology, Ph.D. Certificate in Conservation Biology, or Certificate in Conservation Biology, or C.I. C.I.

Population and community ecology with emphasis on growth, regulation, species interactions, succession, and community classification.

Materials & Supply Fee still exists: \$15.00

<u>Rationale:</u> There are two reasons for the course action request.1. The lab component of the course was established years ago at a time when many students were enrolled in the non-thesis M.S. track and not actively engaged in research. Currently most of our graduate students are engaged in research where they receive more than adequate field training in the discipline.2. The 5 hour structure of the course has resulted in low enrollment because it is difficult to fit into a 9 hour schedule. We expect enrollment to improve in a 3 hour lecture based course.

<u>Discussion with others:</u> There are no duplications with other departments.

Majors taking course: Biology

MAP 5117 Mathematical Modeling

3(3.0)

PR: STA 4321, ••MAP 4363, MAP 4303, graduate status or senior standing, or C.I.

Introduction to modeling in industrial and scientific applications; techniques for studying statistical and deterministic models.

13 of 30 character abbreviation: Math Modeling

<u>Rationale:</u> Replacing the deleted undergraduate course MAP 4363 by MAP 4303 in the prerequisite. Discussion with others: None.

Majors taking course: Mathematics, in particular, students in the MS Industrial Math Track

MAP 6356 Partial Differential Equations

3(3,0)

PR: •• MAP 4364 PR: MAP 4341 or MAP 5435 or equivalent.

First and second order linear equations; classification; analytical methods including Green's functions and integral representations; introduction to nonlinear equations; applications.

23 of 30 character abbreviation: **Partial Diff. Equations**

<u>Rationale:</u> Replacing the deleted undergraduate course MAP 4364 by MAP 4341 in the prerequisite. Discussion with others: None.

Majors taking course: Mathematics students in the PhD program

MAP 6438 Mathematical Fluid-Flow Theory I 3(3,0)

PR: MAP 2302, **MAP 4363, MAP 4303, MAA 4402, PHY 3220 or equivalent, or C.I.

Mathematical theory of incompressible fluid flows along with analytical methods in solving the equations of fluid dynamics in various situations.

<u>Rationale:</u> Replacing the deleted undergraduate course MAP 4363 by MAP 4303 in the prerequisite. Discussion with others: None

Majors taking course: Mathematics students in the PhD program

MAP 6465 Wavelets and Their Applications 3(3,0)

PR: ••MAP 4364, PR: MAP 4341, MAA 6508, or C.I.

Continuous wavelet transforms, discrete wavelet transforms, frams, Zak transform, multi-resolution analysis, orthonormal bases of compactly supported wavelets, spline wavelets.

22 of 30 character abbreviation: Wavelets & Their Apps.

<u>Rationale:</u> Replacing the deleted undergraduate course MAP 4364 by MAP 4341 in the prerequisite. Discussion with others: None.

Majors taking course: Mathematics PhD students

INP 6072 Applied Research Methods in Industrial and Organizational Psychology 3(3,0)

Survey Research Methods and Program Evaluation

PR: Graduate standing in PR: PSY 6216C and admission to master's program in Industrial and Organizational Psychology or PhD in Psychology or C.I.

Applied/practical issues in the conduct of research in organizational settings, including planning and implementation, experimental and quasi-experimental designs, and data analysis.

Applied issues in the evaluation of programs/interventions and survey design, sampling, and data analysis in organizations.

30 of 30 character abbreviation: **Research Meth. & Program Eval.**

<u>Rationale:</u> This revision is simply a name change to better reflect the content covered in the duration of the course.

Majors taking course: MS in I/O Psychology

INP 7933 Seminar in Industrial and Organizational Psychology 3(3,0) INP 6XXX

PR: Admission to Industrial and Organizational PhD masters, Psychology PhD, or C.I.

Selected topics in industrial and organizational psychology. May be used in the <u>I/O MS</u> degree program one time, and may be used in I/O PhD a maximum of 6 times.

14 of 30 character abbreviation: **Seminar in I/O**

<u>Rationale:</u> This course was a Ph.D.-level course that we would like to use for both the master's degree and the PhD program. Thus, the course number needs to be changed to 6000-level and prerequisites need to include either admission to the masters or PhD program.

Majors taking course: MS and Ph.D. in I/O Psychology

College of Education Course Action Revisions

LAE 5337 Literacy Strategies for Middle and Secondary Teaching 3(3,0)

PR: EDG 6236 or C.I.

Designed to assist teachers and graduate students in understanding the adolescent learner. This course will examine theory, strategies, research, resources and implementation options for effective middle and secondary literacy programs.

This course is designed for the examination of theory, teaching strategies, and resources for effective middle and secondary reading instruction, to assist teachers to understand and develop content area reading instructional strategies.

<u>Rationale:</u> LAE 5337 has gradually evolved away from the original intent of the course toward becoming a content area reading course that targets teachers of content areas. The revised course description better reflects that intent.