Date Submitted: 09/28/21 8:12 am

Viewing: **STANMS-EDSP : Statistics and Analytics: Educational Statistics and Psychometrics Concentration**

Last approved: 02/18/21 9:49 am

Last edit: 09/30/21 2:43 pm

Changes proposed by: jgiganti

Catalog Pages Using
this Program
  Statistics and Analytics (STAN)

Submitter:	User ID:	**jgiganti** ~~lkulcza~~	Phone:
7332 ~~7456~~			

Program Status   Active

Academic Level   Graduate

Type of proposal   Concentration

Select a reason for this modification
Making Minor Changes to an Existing Degree (e.g. changing 15 or fewer hours, changing admission/graduation requirements, adding/changing Focused Study or Track)

Effective Catalog Year   Fall 2022

College/School Code
    Graduate School and International Education (GRAD)

Department Code
    Statistics and Analytics (STAN) ~~Department of Graduate Dean (GRSD)~~

Program Code   STANMS-EDSP

Degree   Master of Science

In Workflow

1. **GRAD Dean Initial**
2. **GRAD Dean Initial**
3. **Director of Curriculum Review and Program Assessment**
4. **Registrar Initial**
5. **Institutional Research**
6. **STAN Chair**
7. **EDUC Dean**
8. **ENGR Dean**
9. **ARSC Dean**
10. **GRAD Dean**
11. **WCOB Dean**
12. **AFLS Dean**
13. **Global Campus**
14. **Provost Review**
15. **University Course and Program Committee**
16. Graduate Council
17. Faculty Senate
18. Provost Final
19. Registrar Final
20. Catalog Editor Final

Approval Path

1. 09/28/21 8:17 am
   Jim Gigantino
   (jgiganti): Approved
   for GRAD Dean
   Initial
2. 09/28/21 8:17 am
   Jim Gigantino
   (jgiganti): Approved

CIP Code

for GRAD Dean
Initial

3. 09/29/21 5:36 pm
   Alice Griffin
   (agriffin): Approved
   for Director of
   Curriculum Review
   and Program
   Assessment

4. 09/30/21 2:46 pm
   Lisa Kulczak
   (lkulcza): Approved
   for Registrar Initial

5. 09/30/21 3:06 pm
   Doug Miles
   (dmiles): Approved
   for Institutional
   Research

6. 09/30/21 3:13 pm
   Jim Gigantino
   (jgiganti): Approved
   for STAN Chair

7. 09/30/21 3:56 pm
   Matthew Ganio
   (msganio):
   Approved for EDUC
   Dean

8. 10/04/21 10:38 am
   Kevin Hall (kdhall):
   Approved for ENGR
   Dean

9. 10/04/21 10:39 am
   Jeannie Hulen
   (jhulen): Approved
   for ARSC Dean

10. 10/04/21 1:27 pm
    Jim Gigantino
    (jgiganti): Approved
    for GRAD Dean

11. 10/04/21 1:45 pm Alan Ellstrand (aellstra): Approved for WCOB Dean

12. 10/04/21 2:09 pm Lona Robertson (ljrobert): Approved for AFLS Dean

13. 10/04/21 2:13 pm Suzanne Kenner (skenner): Approved for Global Campus

14. 10/04/21 3:22 pm Ketevan Mamiseishvili (kmamisei): Approved for Provost Review

History

1. Oct 7, 2020 by Lisa Kulczak (lkulcza)

2. Feb 18, 2021 by Pat Koski (pkoski)

27.0501 - Statistics, General.

Program Title

Statistics and Analytics: Educational Statistics and Psychometrics Concentration

Program Delivery
Method

On Campus

~~Online/Web-based~~

Is this program interdisciplinary?

Yes

College(s)/School(s)

College/School Name
College of Education and Health Professions (EDUC)
College of Engineering (ENGR)

College/School Name
Fulbright College of Arts and Sciences (ARSC)
Graduate School (GRAD)
Walton College of Business (WCOB)
Bumpers College of Agricultural, Food, and Life Sciences (AFLS)

Does this proposal impact any courses from another College/School?

Yes

College(s)/School(s)

College/School Name
College of Education and Health Professions (EDUC)

What are the total hours needed to complete the program?   30

Program Requirements and Description

Requirements

Requirements for Concentration in Educational Statistics and Psychometrics

Undergraduate Deficiencies

| MATH 2554 | Calculus I (ACTS Equivalency = MATH 2405) | |
| MATH 3083 | Linear Algebra | |

Core

Requirements include one course from each of these areas as approved by the student's advisory committee: 12
Statistical Methods, Regression Analysis, Multivariate Analysis, Experimental Design

Required Courses

ESRM 5013	Research Methods in Education	3
ESRM 6653	Measurement and Evaluation	3
ESRM 6753	Item Response Theory	3
Choose one of the following options:		9

9 hours of electives as approved by the student's advisory committee

3 hours of electives, 6 hours of thesis credit, and submission of an acceptable thesis

Written comprehensive exam (non-thesis) or defense of the thesis

Total Hours   30

Are Similar Programs available in the area?

No

Estimated Student Demand for Program	24
Scheduled Program Review Date	2021-2022

Program Goals and Objectives

Program Goals and Objectives
1. To provide and foster knowledge, practices and skills common to traditional first year graduate level programs in Statistics, Biological Analytics, Business Analytics, Operations Analytics, Computational Analytics, Quantitative Social Sciences, and Educational Statistics and Psychometrics.   2. To provide and foster knowledge, practices and skills from traditional advanced graduate level programs in one of the above disciplines.   3. To provide tools and experiences enabling our graduates to communicate effectively and work with practitioners in their field.   4. To provide highly skilled practitioners to industry and academic leadership positions in society.

Learning Outcomes

Learning Outcomes
1. Fundamental language of statistics (probability distributions, mean, variance, covariance, hypothesis testing, etc.)   2. Thorough knowledge of linear regression modeling and analysis.   3. Proficiency with regression in the context of many possibly collinear variables.   4. Thorough knowledge of the theory and design of statistical experiments.   5. Capability with software tools enabling general purpose statistical analysis.   6. Skill with programming tools and languages appropriate for one or more of the disciplines listed in Program Goals 1.   7. Ability to prepare and present statistical analyses.   8. Ability to communicate and collaborate effectively in both discipline specific and interdisciplinary team projects.

Description and justification of the request

Description of specific change	Justification for this change

Description of specific change	Justification for this change
Eliminating Online Delivery	This program was initially approved as an online program but that was in error. This program has never been offered online.

Upload attachments

Reviewer Comments

Lisa Kulczak (lkulcza) (09/30/21 2:43 pm): Adjusted department to correctly reflect STAN program; workflow updated to include STAN Chair vs. GRSD Chair.

Key: 796