THE UNIVERSITY OF ARIZONA®

New Academic Program Workflow Form

General

Proposed Name: Clinical Research Coordination

Transaction Nbr: 0000000000214

Plan Type: Specialization

Academic Career: Undergraduate

Degree Offered: Undergraduate Certificate

Do you want to offer a minor? N

Anticipated 1st Admission Term: Fall 2024

Details

Department(s):

MDTC

DEPTMNT ID	DEPARTMENT NAME	HOST
0750	Emergency Medicine	Y

Campus(es):

MAIN

LOCATION	DESCRIPTION
TUCSON	Tucson

Admission application terms for this plan: Spring: Y Summer: N Fall: Y

Plan admission types:

Freshman: N Transfer: Y Readmit: Y Graduate: N

Non Degree Certificate (UCRT only): N

Other (For Community Campus specifics): Y

Students are required to have 2nd year standing, at least a 3.0 cumulative GPA, and have taken at least 2 science courses connected to the active studies within the department. Preference for PSIO 201 or equivalent.

Plan Taxonomy: 51.0719, Clinical Research Coordinator.

Program Length Type: Program Length Value: 0.00

Report as NSC Program:

SULA Special Program:

Print Option:

Diploma: Y Certificate in Clinical Research Coordination

Transcript: Y Certificate in Clinical Research Coordination

Conditions for Admission/Declaration for this Major:

Students are required to have 2nd year standing, at least a 3.0 cumulative GPA, and have taken at least 2 science courses connected to the active studies within the department. Preference for PSIO 201 or equivalent.

Requirements for Accreditation:

No accreditation is required for this certificate

Program Comparisons

University Appropriateness

This program leverages the clinical agreement with Banner Health at the University Medical Center and The University of Arizona, making it accessible to students in terms of location, access to clinical research hours, understanding direct healthcare careers, and professional preparation in clinical research coordination. For any student interest in a research or direct patient healthcare career, this certificate should be a part of their Wildcat Journey.

Arizona University System



Peer Comparison

The UA program is an undergraduate focused certificate while ASU and Duke's are both graduate level. Experience in the Emergency Department is a differentiator for our program and students will spend approximately 150 hours in the Banner UMC ED throughout the certificate. The focus on Emergency Medicine is another differentiator among these programs.

The certificate leverages our clinical association with Banner University Medical Center - Tucson and South Campus, allowing our students to observe and enroll patients in clinical studies in accordance with their enrollment processes. These comparative programs learn about the theory behind doing what our students will experience throughout the certificate courses.

Resources

Library

Acquisitions Needed:

Text is already offered within the Library Resources

Physical Facilities & Equipment

Existing Physical Facilities:

Nothing is needed. A classroom in Health Sciences is needed and reserved for in-person components through Fall 2024.

Additional Facilities Required & Anticipated:

None anticipated

Other Support

Other Support Currently Available:

Maintaining the clinical agreement with Banner Health is critical to our operations of the course and the certificate proposal

Other Support Needed over the Next Three Years:

None

Comments During Approval Process

2/1/2024 6:06 PM

JGAITHER

Comments Approved.

3/19/2024 4:44 PM

MELANIECMADDEN

Comments	
Approved.	

3/20/2024 9:27 AM

DHERRING

Comments	
Approved.	



I. CERTIFICATE DESCRIPTION

The certificate program is designed for students who are new to clinical research or seeking to enter a related field. Students in the program will gain a foundational understanding of clinical research coordination, with a focus on gaining competencies and skills needed to begin a career as a Clinical Research Coordinator (CRC). Students will develop competencies in preparing and submitting required documentation; recruiting, screening and enrolling research human participants; and performing follow-up activities. Students will also gain hands-on experience by participating in ongoing research studies.

The program was developed in accordance with the standards of the Society for Clinical Research Associates (SOCRA) and the Association of Clinical Research Professionals (ACRP). This UA Certificate prepares graduates for national certification examinations offered by these organizations.

NEED FOR THE CERTIFICATE/JUSTIFICATION

Quality research coordinators are important to clinical trial success. According to a report from the Society of Clinical Research Professionals, the demand for clinical trials is growing as the pool of clinical research associates and other trial workforce professionals is shrinking. There were about 56,700 jobs for Clinical Research Coordinator in 2016 (in the United States). New jobs are being produced at a rate of 9.9% which is above the national average. The Bureau of Labor Statistics predicts 5,600 new jobs for Clinical Research Coordinator by 2026. There will be an estimated 5,200 positions for Clinical Research Coordinator per year.

Currently there is not an undergraduate level certificate program in Clinical Research at the University of Arizona. This program would allow students to gain the necessary knowledge to pursue a career in clinical research. Current programs at the University of Arizona are aimed at clinical translational scientists and graduate students. This program would also prepare undergraduate students to gain critical knowledge in clinical research to prepare them for future success in clinical and translational science research.

This certificate would also provide more opportunities for students to gain needed hours in clinical or research experiences making them more competitive applicants for Medical School, Physician Assistant School, or Nursing School.

II. PROGRAM AFFILIATION

The majority of courses required for this certificate program are currently offered through the Undergraduate Degree Program in Emergency Medical Services (EMS). These courses are offered on the main campus and based out of the College of Medicine, Department of Emergency Medicine. This new certificate program will include ongoing collaboration with MATH, SBS, EPID, BIOS and BME where student will complete one course in biostatistics.

UNDERGRADUATE CERTIFICATE

Minimum total units required	12
Minimum upper division units	9
Total transfer units that may apply to the certificate. <i>Note: A minimum of six (6) units used</i> <i>to complete the certificate must be University</i> <i>credit.</i>	3
Pre-admissions expectations (i.e., academic training to be completed prior to admission)	Students must have a minimum 3.0 GPA and demonstrated successful completion of science coursework. Preference for completion of PSIO 201. 2 nd year standing.
Certificate requirements. List all certificate requirements including core and electives. Courses listed must include course prefix , number, units, and title . Mark new coursework (New) . Include any limits/restrictions needed. Provide email(s)/letter(s) of support from home department head(s) for courses not owned by your department.	 Complete 9 units of core coursework: EMD 482 (3) Introduction to Research Associate Program (New number requested, currently using EMD 396) EMD 493D (3) Research Associate Internship EMD 491D (3) Research Associate Preceptorship Complete 3 units from options below: BIOS 376 (3) Introduction to Biostatistics EPID 309 (3) Introduction to Epidemiology MATH 263 (3) Introduction to Statistics and Biostatistics SBS 200 (3) Introduction to Statistics for the Social Sciences BME 376 (3) Biomedical Statistics
Internship, practicum, applied course requirements (Yes/No). If yes, provide description.	Yes. Students complete 3 units of a research associate internship and 3 units of a research associate preceptorship
Any double-dipping restrictions (Yes/No)? If yes, provide description.	Yes, students may apply 6 units towards the major or 3 towards the minor.
Additional requirements (provide description)	Students must complete the required presentation for the preceptorship.

IV. CURRENT COURSES

Course prefix and number (include cross- listings)	Units	Title	Pre-requisites	Modes of Delivery (online, in- person, hybrid)	Campus and Location Offered	Dept signed party to proposal? (Yes/No)
EMD 482	3	Introduction to the Research Associate Program	2 nd year standing, PSIO 201 preferred	hybrid	Main Campus	Yes
EMD 493D	3	Research Associate Program Internship	EMD 482	hybrid	Main Campus	Yes
EMD 491D	3	Research Associate Program Preceptorship	EMD 493D	hybrid	Main Campus	Yes
BIOS 376 or	3	Introduction to Biostatistics	MATH 108 or 112 or higher	In-Person & Fully Online	Main Campus	Yes
BME 376	3	Biomedical Statistics	Adv Stdg: Engineering & MATH 129	In-Person		Requested
or EPID 309 or	3	Introduction to Epidemiology	MATH 108, 112, or higher	In-Person & Fully Online		Yes
MATH 263	3	Introduction to Statistics and Biostatistics	MATH 108 or 112 or higher or test scores	In-Person & Fully Online		Yes
or SBS 200	3	Introduction to Statistics for the Social Sciences	MATH 107, 108, or 112 or higher or test scores	In-Person & Fully Online		Yes

V. Learning Outcomes

Undergraduate Certificate in Clinical Research Coordination

Learning Outcome #1: Demonstrate proficiency in clinical research design and conduct within regulatory and ethical guidelines.

Concepts: study design and study protocols, the general roles and responsibilities of the study personnel, and the required documentation for best practices in a clinical trial.

Competencies: Conduct clinical research studies following relevant privacy laws and human subjects' protections.

Learning Outcome #2: Demonstrate the ability to recruit and enroll patients into clinical research trials.

Concepts: subject recruitment and retention processes, regulatory and ethical informed consent process, elements, and purpose of good clinical practice.

Competencies: Demonstrate the ability to perform study recruitment, through participation in ongoing clinical research studies, under the supervision of primary investigators and clinical research coordinators.

Learning Outcome #3 Demonstrate proficiency in monitoring a clinical study

Concepts: monitoring process and the CRC's role in supporting monitoring, types of adverse events (AEs) and processes for capturing, assessing, and reporting AEs

Competencies: working under the supervision of clinical research coordinators, participate in clinical research trial monitoring and site visits.

Curriculum Map

	Statistics	EMD 482	EMD 493D	EMD 491D
LO #1: Demonstrate proficiency in clinical research design and conduct within regulatory and ethical guidelines.	I	I	R	М
LO #2: Demonstrate the ability to recruit and enroll patients into clinical research trials.		I	R	М
LO #3: Demonstrate proficiency in monitoring a clinical study		I	R	М

VI. CONTACTS AND ADMINISTRATION

UNDERGRADUATE (delete if n/a)

a. List the name and contact information for the primary point of contact for the certificate:

Steve Morrison smorriso@arizona.edu 520-626-1187

b. List the name and contact information for the person or persons who will serve in the role of Director of Undergraduate Studies (DUS) for the certificate (this is not always the same as the DUS for affiliated programs or head of the managing academic unit.):

Amber Rice, MD 520-626-2241

c. If known, list the members of the certificate oversight committee for this certificate. Note: undergraduate certificate oversight committees shall consist of a minimum of 3 members, 2 of which are faculty and at least one of the 2 is participating faculty in the certificate program. The oversight committee is responsible for 1) qualifications of participating faculty, 2) coordination of admissions recommendations with the Office of Admissions, and 3) curricular changes:

Josh Gaither, MD Amber Rice, MD Steve Morrison, MBA

VII. REQUIRED SIGNATURES

Program Director/Main Proposer (print name and title): Joshua B. Gaither, EMS Degree Program Director

Program Director/Main Proposer signature: Date: 11/27/23

Department Head (print name and title): Samuel M. Keim, Chair of the Department of Emergency Medicine Department Head's signature:

Date: 11/27/23

unden Keur

Associate/Assistant Dean (print name): Jason Marr, Deputy Dean Finance and Business Affairs, College of Medicine-Tucson Associate/Assistant Dean's signature:

Date: 11/27/23



Dean (print name): Michael M.I. Abecassis, MD, MBA, Iovanna C. Lopez Dean, College of Medicine – Tucson

Dean's signature: Date: 11/27/2

bran

For use by Curricular Affairs (Undergraduate):

Committee	Approval
	date
APS	
Undergraduate Council	
Undergraduate College Academic	
Administrators Council	

For use by Curricular Affairs (Graduate):

Committee	Approval
	date
GPERC	
Graduate College Academic	
Administrators Council	



New Academic Program PEER COMPARISON

Program name, degree,	Undergraduate Certificate in Clinical	Clinical Research Certificate -	Clinical Research Management
and institution	Research Coordination	Duke University	Certificate – Arizona State University
Current number of		Not listed	Not listed
students enrolled			
Program Description	The certificate program is	The Academic Core in	The clinical research management
	designed for students who are	Clinical Research or the	certificate is designed for professionals
	new to clinical research or	"Certificate option" offers	looking to increase their knowledge of
	seeking to enter a related	students a one-year	clinical research and gain a solid
	field. Students in the program	didactic experience that	foundation as they advance their
	will gain a foundational	enhances their clinical	careers. In this program, you'll learn
	understanding of clinical research	research skills. The	about clinical research regulations,
	coordination, with a focus on	certificate requires that	ethics, operations and data
	gaining competencies and skills	students complete the five	management. You'll also learn to use
	needed to begin a career as a	core courses (CRP 241,	this information to drive clinical
	Clinical Research Coordinator	242, 245, 253, and 254)	progress that benefits patients' health.
	(CRC). Students will develop	that are required for the	
	competencies in preparing and	degree track. As with all	The clinical research certificate is an
	submitting required	options within CRTP, the	ideal way for professionals to learn
	documentation; recruiting,	certificate program is	about the clinical research business.
	screening and enrolling research	designed for part-time	This includes the financial practices and
	human participants; and	study, which allows the	management of drug, biological and
	performing follow-up	fellow/student to integrate	device trials.
	activities. Students will also gain	the program's academic	
	hands-on experience by	program with clinical	To be eligible for this program, you
	participating in ongoing research	training.	
	studies.		
		Certificate candidates have	
	The program was developed in	the option of switching to	
	accordance with the standards of	the degree option and	
	activities. Students will also gain hands-on experience by participating in ongoing research studies. The program was developed in	the program's academic program with clinical training. Certificate candidates have the option of switching to	device trials. To be eligible for this program, you must have completed six months of clinical research experience.

	the Society for Clinical Research Associates (SOCRA) and the Association of Clinical Research Professionals (ACRP). This UA Certificate prepares graduates for national certification examinations offered by these organizations.	applying their coursework toward the degree requirements.	
Target Careers	Clinical Research, Physician, Nurse, Physician Assistant, EMS	Clinical Research Coordinators, Physicians, Nurses,	Clinical Research Coordinators, Physicians, Nurses, Drug researchers, Device researchers
Emphases? (Yes/No) List, if applicable	No	No	No
Minimum # of units required	12	16	Not listed
Level of Math required (if applicable)	Statistics	NA	NA
Level of Second Language required (if applicable)	No	NA	NA
Pre-Major? (Yes/No) lf yes, provide requirements.	No	No, Students may opt to use certificate towards their degree	No
Special requirements to declare/gain admission? (i.e. pre-requisites, GPA, application, etc.)	Students must have a minimum 3.0 GPA and demonstrated successful completion of science coursework. Preference for completion of PSIO 201. 2 nd year standing.	CV and transcripts. Student status required	 Cumulative GPA of 3.0 from Bachelor's degree Graduate admission application and application fee. Official transcripts. Personal statement. Writing prompt answering clinical trial research questions. Up-to-date curriculum vitae or resume.

			 Three online references. Proof of English proficiency (for students whose first language isn't English). Proof of six months of experience in the conduction of clinical research.
Internship, practicum, or applied/experiential requirements? If yes, describe.	Yes, students will complete a 3 unit Internship and a 3-unit preceptorship. Students complete approximately 150 hours of clinical study monitoring in the Banner UMC Emergency Department across the 3 EMD courses	No	No

Additional questions:

1. How does the proposed program align with peer programs? Briefly summarize the similarities between the proposed program and peers, which could include curriculum, overall themes, faculty expertise, intended audience, etc.

Alignment of curriculum in statistics and clinical research coordination practices are consistent among all three programs. Preparation towards optional professional certificate are consistent across our program and Duke's. The professional organization's associated with future potential professional certification are different though. Duke focuses on NIH certification while we focus on SOCRA or ACRP.

2. How does the proposed program stand out or differ from peer programs? Briefly summarize the differences between the proposed program and peers, which could include curriculum, overall themes, faculty expertise, intended audience, etc.

The UA program is an undergraduate focused certificate while ASU and Duke's are both graduate level. Experience in the Emergency Department is a differentiator for our program and students will spend approximately 150 hours in the Banner UMC ED throughout the certificate. The focus on Emergency Medicine is another differentiator among these programs.

3. How do these differences make this program more applicable to the target student population and/or a better fit for the University of Arizona?

The certificate leverages our clinical association with Banner University Medical Center – Tucson and South Campus, allowing our students to observe and enroll patients in clinical studies in accordance with their enrollment processes. These comparative programs learn about the theory behind doing what our students will experience throughout the certificate courses.



Name of Proposed Program or Unit: Certificate in Clinical Research Coordination

Projected
Budget Contact Person: Steve Morrison 1st Year 2nd Year 3rd Year AY25 AY26 AY27
METRICS
Net increase in annual college enrollment UG 155 171 188 * enrollment in Fall +
Net increase in college SCH UG 465 512 563 *Assumption: 10% pr
Net increase in annual college enrollment Grad
Net increase in college SCH Grad
Number of enrollments being charged a Program Fee
New Sponsored Activity (MTDC)
Number of Faculty FTE
FUNDING SOURCES
Continuing Sources
UG AIB Revenue 58,125 63,938 70,331 \$125/SCH
Grad AIB Revenue
Program Fee Revenue (net of revenue sharing) F and A AlB Revenues
Reallocation from existing College funds (attach description)
Other Items (attach description)
Total Continuing \$ 58,125 \$ 63,938 \$ 70,331
One-time Sources
College fund balances
Institutional Strategic Investment
Gift Funding
Other Items (attach description)
Total One-time \$ - \$ - \$ -
TOTAL SOURCES \$ 58,125 \$ 63,938 \$ 70,331
EXPENDITURE ITEMS
Continuing Expenditures
Course Instruction 43,061 43,061 43,061 43,061
Overhead 7,750 6,250 6,250
Other Items (attach description)
Total Continuing \$ 50,811 \$ 49,311 \$ 49,311
One-time Expenditures
Construction or Renovation
Start-up Equipment
Replace Equipment
Library Resources
Library Resources Other Items (attach description)
Library Resources
Library Resources Other Items (attach description)



617 N. Santa Rita Avenue Tucson, Arizona 85721 www.math.arizona.edu

November 19, 2023

Executive Director Academic/Curricular Affairs University of Arizona

RE: Certificate in Clinical Research

Dear colleagues,

I am writing to express the support of the Department of Mathematics for the proposed new certificate in Clinical Research to be offered by the Department of Emergency Medicine in the College of Medicine Tucson. In particular, the Math Department supports the inclusion of the following course as an elective for the new degree:

Math 263 Introduction to Statistics and Biostatistics (3 units)

We expect to offer this course each fall and spring, and we expect to be able to accomodate the additional students without any difficulties. Normal prerequisites and registration priorities will apply.

Sincerely,

4 2 Ulmer

Douglas Ulmer Professor and Head

From:	<u>Ehiri, John E - (jehiri)</u>
То:	Duran, Lynette A - (laduran); Morrison, Steve - (smorriso)
Subject:	RE: Request to Include courses in Certificate proposal
Date:	Tuesday, November 21, 2023 4:13:38 PM
Attachments:	image001.png
	image002.png
	image003.png
	image004.png

Thank you for this, Lyn, and Steve.

The request to include BIOS 376 and EPID 309 is approved. Let us know if our further attention is needed.

Happy Thanksgiving. John

John Ehiri, Ph.D., MPH, MSc (Econ.) Professor Senior Associate Dean, Academic & Faculty Affairs 1295 N. Martin Ave. Suite A317H Tucson, AZ 85724, USA Email: jehiri@arizona.edu Phone: 520-626-1355

PROMOTE * PREVENT * PROTECT



The University of Arizona is located statewide on the ancestral homelands of indigenous peoples.

From: Duran, Lynette A - (laduran) <laduran@arizona.edu>
Sent: Monday, November 20, 2023 2:52 PM
To: Morrison, Steve - (smorriso) <smorriso@arizona.edu>
Cc: Gaither, Joshua B - (jgaither) <JGaither@aemrc.arizona.edu>; Rice, Amber D - (rice1)
<ARice@aemrc.arizona.edu>; Ernst, Kacey C - (kernst) <kernst@arizona.edu>; Ehiri, John E - (jehiri)
<jehiri@arizona.edu>
Subject: RE: Request to Include courses in Certificate proposal

Hello, Steve!

Nice to e-meet you!

These sound like great additions for the certificate. I am looping in Dr. Ernst and Dr. Ehiri for their approval of this request as well.

Have a great day!

Best, Lyn

Lyn Durán

Assistant Dean Office of Student Affairs Mel and Enid Zuckerman College of Public Health The University of Arizona Roy P. Drachman Hall 1295 N. Martin Ave. Room A102 Tucson, AZ 85724-5033

Ofc: (520) 626-2355 laduran@arizona.edu https://publichealth.arizona.edu

https://arizona.zoom.us/my/lynduran

Pronouns: She/Her/Ella Hablo español



Land Acknowledgment:

We respectfully acknowledge the University of Arizona is on the land and territories of Indigenous peoples. Today, Arizona is home to 22 federally recognized tribes, with Tucson being home to the O'odham and the Yaqui. Committed to diversity and inclusion, the University strives to build sustainable relationships with sovereign Native Nations and Indigenous communities through education offerings, partnerships, and community service.

From: Morrison, Steve - (smorriso) <<u>smorriso@arizona.edu</u>>
Sent: Friday, November 17, 2023 4:05 PM
To: Duran, Lynette A - (laduran) <<u>laduran@arizona.edu</u>>
Cc: Gaither, Joshua B - (jgaither) <<u>JGaither@aemrc.arizona.edu</u>>; Rice, Amber D - (rice1)
<<u>ARice@aemrc.arizona.edu</u>>
Subject: Request to Include courses in Certificate proposal

Hello Dean Durán,

I hope your semester is going well.

I'm writing to request the inclusion of BIOS 376 – Introduction to Biostatistics and EPID 309 –

Introduction to Epidemiology in an undergraduate certificate we are proposing in clinical research. Nearly every student in our current class takes one of the courses we are requesting below as a requirement for their major (PSIO, BSM, NCS, Biology, Pre-Nursing, BIOC, and BME were the most common majors) and those that were not required to take it have the option to include one of them in their major study plan. About half of the programs have BIOS 376 as an options for their students. Currently BIOS 376 and EPID 309 are options in our BS in Emergency Medical Services program. Their inclusion was originally approved by Dr. Doug Taren in October 2018.

By adding these to our list of courses, I do not imagine a great impact to the current seats in this course as they're already an available course option in many of the majors that enrolled in our current course. I would consider a 5-10 seats increase annually at the very most. Biomedical Engineering has their own Biostatistics course for their majors.

We are requesting the inclusion of BIOS 376, BME 376, EPID 309, MATH 263, and SBS 200 as statistics options for the certificate. The other 3 courses would be our own series of courses in clinical research and aligned with a professional certificate in clinical research.

Please let me know if you have any questions, if you'd like to talk through this in a meeting, and if you give us your approval to include BIOS 376 and EPID 309 among our current list for this certificate.

Thank you for considering our request,

Steve

Steve Morrison EMS Degree Program Manager 520.626.1187 <u>smorriso@arizona.edu</u>

Kindness is Good Medicine





THE UNIVERSITY OF ARIZONA

From:	<u>Kimme Hea, Amy C - (kimmehea)</u>
То:	<u>Morrison, Steve - (smorriso)</u>
Cc:	Gaither, Joshua B - (jgaither); Rice, Amber D - (rice1)
Subject:	RE: Request to Include course in Certificate proposal
Date:	Friday, November 17, 2023 4:27:20 PM
Attachments:	image003.png
	image004.png
	<u>image005.png</u>

Dear Steve,

Wonderful to hear from you, and I am happy for you to offer SBS 200 as part of your certificate. Please let me know if you need any additional information from me.

Hope you have a lovely weekend, all.

All best,

Amy

Amy C. Kimme Hea, PhD Associate Dean, Academic Affairs & Student Success College of Social and Behavioral Sciences Professor, English | Faculty, Social, Cultural, and Critical Theory GIDP Douglass Building, Room 200W PO Box 210028 University of Arizona Tucson, AZ 85721.0028 520.621.1112

Pronouns: she/her/hers



We respectfully acknowledge the University of Arizona is on the land and territories of Indigenous peoples. Today, Arizona is home to 22 federally recognized tribes, with Tucson being home to the O'odham and the Yaqui. Committed to diversity and inclusion, the University strives to build sustainable relationships with sovereign Native Nations and Indigenous communities through education offerings, partnerships, and community service.

From: Morrison, Steve - (smorriso) <smorriso@arizona.edu> Sent: Friday, November 17, 2023 4:04 PM To: Kimme Hea, Amy C - (kimmehea) <kimmehea@arizona.edu>
Cc: Gaither, Joshua B - (jgaither) <JGaither@aemrc.arizona.edu>; Rice, Amber D - (rice1)
<ARice@aemrc.arizona.edu>
Subject: Request to Include course in Certificate proposal

Hello Dr. Kimme Hea,

I hope your semester is going well.

I'm writing to request the inclusion of **SBS 200 – Introduction to Statistics & Biostatistics** in an undergraduate certificate we are proposing in clinical research. Nearly every student in our current class takes one of the courses we are requesting below as a requirement for their major (PSIO, BSM, NCS, Biology, Pre-Nursing, BIOC, and BME were the most common majors) and those that were not required to take it have the option to include one of them in their major study plan. Nearly all of the programs have SBS 200 as an option for their students. Currently SBS 200 is an option in our BS in Emergency Medical Services program.

By adding this to our list of courses, I do not imagine a great impact to the current seats in this course as it's already an available course option in many of the majors that enrolled in our current course. I would consider a 5-10 seats increase annually at the very most. Biomedical Engineering has their own Biostatistics course for their majors.

We are requesting the inclusion of BIOS 376, BME 376, EPID 309, MATH 263, and SBS 200 as statistics options for the certificate. The other 3 courses would be our own series of courses in clinical research and aligned with a professional certificate in clinical research.

Please let me know if you have any questions, if you'd like to talk through this in a meeting, and if you give us your approval to include SBS 200 among our current list for this certificate.

Thank you for considering our request,

Steve

Steve Morrison EMS Degree Program Manager 520.626.1187 <u>smorriso@arizona.edu</u>

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