



New Academic Program Workflow Form

General

Proposed Name: PH Emergency & Epidemic Prep

Transaction Nbr: 00000000000125

Plan Type: Specialization

Academic Career: Undergraduate

Degree Offered: Undergraduate Certificate

Do you want to offer a minor? N

Anticipated 1st Admission Term: Fall 2022

Details

Department(s):

PBLH

DEPTMNT ID	DEPARTMENT NAME	HOST
4201	College of Public Health	Y

Campus(es):

GLBD

LOCATION	DESCRIPTION
ONLN	UA Online

MAIN

LOCATION	DESCRIPTION
TUCSON	Tucson

ONLN

LOCATION	DESCRIPTION
ONLN	Online

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

Plan admission types:

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

Non Degree Certificate (UCRT only): N

Other (For Community Campus specifics): N

Plan Taxonomy: 43.0302, Crisis/Emergency/Disaster Management.

Program Length Type: Program Length Value: 0.00

Report as NSC Program:

SULA Special Program:

Print Option:

Diploma: Y Undergraduate Certificate, Public Health Emergency & Epidemic Preparedness

Transcript: Y Undergraduate Certificate, Public Health Emergency & Epidemic Preparedness

Conditions for Admission/Declaration for this Major:

Certificate applicants must meet UA undergraduate admission requirements. Completion of MATH 112 or equivalent is required.

Requirements for Accreditation:

There are no additional requirements, other than the university requirement.

Program Comparisons

University Appropriateness

The proposed program supports the University of Arizona's ambitions for addressing grand challenges in the areas of disease prevention and treatment. The creation of an emergency and epidemic preparedness program which includes additional trainings to improve public health response to serious threats to health and safety is aligned with the MEZCOPH mission to develop workforce training by integrating our faculty's research and instruction expertise, and to the 2019 Council on Education for Public Health (CEPH) accreditation criteria associated with locating, using, evaluating, and synthesizing information in the contexts in which public health professionals work.

Students completing this certificate will be equipped with skills to assist and lead response and recovery efforts in public health emergencies.

Arizona University System

NBR	PROGRAM	DEGREE	#STDNTS	LOCATION	ACCRDT
1	BAS in Emergency Management	BAPS	53	Northern Arizona University	Y

Peer Comparison

There are no similar undergraduate programs at any of UA's peer institutions. While NAU and the University of Florida offer a bachelor's degree in Emergency Management, the focus of these programs have minimal public health content. The University of Arizona Mel & Enid Zuckerman College of Public Health has a unique opportunity to develop an undergraduate certificate with a targeted focus on infectious disease outbreaks and public health emergency preparedness. The proposed certificate draws upon the strengths of MEZCOPH faculty's expertise in disease outbreaks, management of public health emergencies, public health preparedness and emergency response planning and implementation.

Faculty & Resources

Faculty

Current Faculty:

INSTR ID	NAME	DEPT	RANK	DEGREE	FCLTY/%
00904364	Thomas Nuno	4204	Assit. Prof	Doctor of Philosophy	5.00
01011437	Jonathan Sexton	4206	Instructor	Doctor of Philosophy	5.00
02134265	Aminata Kilungo	4206	Assoc. Prof. Pract.	Doctor of Philosophy	5.00
17705323	John Ehiri	4205	Professor	Doctor of Philosophy	5.00
22056977	Yann Klimentidis	4204	Assoc. Prof	Doctor of Philosophy	5.00
22073285	Katherine Ellingson	4204	Assit. Prof	Doctor of Philosophy	5.00
23627391	Naqibullah Safi	4205	Adj. Lect.	Master of Bus Admin	15.00

Additional Faculty:

We do not anticipate the need for additional faculty to offer this program.

Current Student & Faculty FTE

DEPARTMENT	UGRD HEAD COUNT	GRAD HEAD COUNT	FACULTY FTE
4201	770	440	75.00

Projected Student & Faculty FTE

	UGRD HEAD COUNT			GRAD HEAD COUNT			FACULTY FTE		
DEPT	YR 1	YR 2	YR 3	YR 1	YR 2	YR 3	YR 1	YR 2	YR 3
4201	776	781	795	440	450	463	75.00	75.00	75.00

Library

Acquisitions Needed:

None

Physical Facilities & Equipment

Existing Physical Facilities:

Existing physical facilities and equipment are adequate for this program.

Additional Facilities Required & Anticipated:

None

Other Support

Other Support Currently Available:

The MEZCOPH Office of Student Services and Alumni Affairs offers academic advising for all undergraduate degrees in our college. In addition, teaching assistants are assigned to courses with large enrollments.

Other Support Needed over the Next Three Years:

None

Comments During Approval Process



THE UNIVERSITY
OF ARIZONA

NEW CERTIFICATE PROPOSAL

I. CERTIFICATE DESCRIPTION

Developed and implemented by public health experts with extensive applied experience in public health emergency and epidemic preparedness/response, the University of Arizona's *Undergraduate Certificate in Public Health Emergency and Epidemic Preparedness* will provide participants with foundational knowledge and skills needed to support public health response to emergencies, epidemics, and pandemics. Participants in this 12-unit certificate program will gain an understanding of emergency management systems; they will be introduced to various forms of disasters and public health threats, as well as to essential public health response skills. Participants will be trained on how to use epidemiological tools to conduct rapid assessment and public health investigation of emergencies/disease outbreaks. Individuals who successfully complete this certificate will also earn three FEMA certificates and a certificate in contact tracing. The FEMA certificates are open-source course modules that would be embedded into the certificate courses. The contact tracing certification is delivered through the MEZCOPH's Western Region Public Health Training Center. Delivered fully online through Arizona Online and Main Campus, this certificate program can be completed in one year.

II. NEED FOR THE CERTIFICATE/JUSTIFICATION

Public health emergencies (disasters [natural and human-made], epidemics, and pandemics) pose a serious threat to health and safety. Over the past few decades, the United States (US) has experienced several public health emergencies including terrorist attacks, extreme weather phenomena, hurricanes, and tornadoes. Notable among emergencies related to infectious disease outbreaks were the coronavirus pandemic of 2003 and 2009, when the H1N1 influenza virus emerged as a global public health threat. In 2014, the threat of Ebola disease escalated to a global concern, and remains a largely unresolved health threat. The current Novel Corona Virus (COVID-19) pandemic, first reported in late 2019, has tested public health systems globally. Over 47 million cases and 759,060 deaths related to COVID-19 have been reported across the United States since the infection was declared a pandemic by the World Health Organization in March 2020. COVID-19 resulted in a 3.5% decrease in US GDP in 2020, the country's lowest growth rate since 1946. The long-term negative impact on the economy is expected to continue over the next 5-10 years.

Effective public health preparedness and response is critically needed to prepare for, respond to, and recover from emergencies. Specialized training is needed to meet the requirement for a prepared workforce because the responsibilities are more complicated than in routine public health practice. In spite of the passage of the National Health Security Strategy and the Pandemic and All Hazards Preparedness Act (PAHPA) in 2006, workforce training in public health emergency response continues to lag behind. Given the current threat of COVID-19 and anticipated future threats from climate change, there is an urgent need to equip the current and future workforce with skills to assist and lead response and recovery efforts. This undergraduate Certificate in Public Health Emergency and Epidemic Preparedness is designed for health and allied health professionals, first responders, and community members. Only very few US universities offer graduate certificates in public health emergency and preparedness, but none currently offers undergraduate certificate training on this subject.

Due to the online nature of the program, students from across the UA and other universities in the US and overseas will be able to take it and may be able to transfer the associated units to public health degree programs. Job prospects for those graduating with an undergraduate degree in related Public Health disciplines are good. According to a recent market analysis, over 8,700 jobs related to public health and safety were listed nationally in the last year. The median salary in Arizona for graduates of a public health emergency management program is \$69,000, well above the average living wage for the state. Market data continues to show that careers in public health emergency preparedness are expected to grow in the next 10 years.

III. PROGRAM AFFILIATION

The Mel and Enid Zuckerman College of Public Health (MEZCOPH) offers a graduate degree program (MPH) in several concentrations in-person and online in Tucson and on Phoenix campus. Specifically, this undergraduate certificate program is a result of collaborations of all departments in MEZCOPH under the leadership of the Institute of Global Health (GHI), <https://ghi.arizona.edu/> of which Dean, Iman Hakim, MD, PhD is the Founding Director.

IV. CERTIFICATE REQUIREMENTS

UNDERGRADUATE CERTIFICATE

Minimum total units required	12
Minimum upper division units	6
Total transfer units that may apply to the certificate <i>Note: A minimum of six (6) units used to complete the certificate must be University credit.</i>	3
Pre-admissions expectations (i.e., academic training to be completed prior to admission)	Certificate applicants must meet UA undergraduate admission requirements Completion of MATH 112 is required
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.	<p>Core Courses (9 units)</p> <ul style="list-style-type: none"> EHS 1XX: Foundation of Disasters Management and Response (3 units) – <i>[New course under development]</i> EHS 3XX: Fundamentals of Public Health Emergency and Epidemic Response (3 units) <i>[New course under development]</i> EPID 309: Introduction to Epidemiology (3 units) <p>Electives (3 Units)</p> <ul style="list-style-type: none"> EHS 489: Public Health Preparedness (3 units) HPS 459: Management of Public Health Emergencies (3 units) EPID 479: Infections and Epidemics (3 units) EPID 411: Health and Disease Across Time and World (3 units) EHS 439A: Outbreak & Environmental Microbiology: Then and Now (3 units)
Internship, practicum, applied course requirements (Yes/No). If yes, provide description.	<ul style="list-style-type: none"> No
Any double-dipping restrictions (Yes/No)? If yes, provide description. *A maximum of 6 units may double-dip with a degree requirement (major, minor, General Education) or second certificate.	<ul style="list-style-type: none"> Students may apply 6 units towards Bachelor of Science or a Bachelor of Arts with a public health major.
Additional requirements (provide description)	Students may substitute 3 units with approval of the Director of Undergraduate Studies.

V. 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)
EHS 1XX	3	EHS 1XX: Foundation of Disasters Management and Response (3 units)	None	Online, iCourse	Main-Tucson, AZ Online, Global Direct	Yes

EHS 3XX	3	EHS 3XX: Fundamentals of Public Health Emergency and Epidemic Response (3 units)	None	Online, iCourse	Main-Tucson, AZ Online, Global Direct	Yes
EPID 309	3	Introduction to Epidemiology	Pre-req: MATH 112	Online, iCourse	Main-Tucson, AZ Online, Global Direct	Yes
HPS 459	3	Management of Public Health Emergencies (3 units)	None	Online, iCourse	Main-Tucson, AZ Online, Global Direct	Yes
EHS 439A	3	Outbreak & Environmental Microbiology: Then and Now	Pre-req: EPID 309	Online, iCourse	Main-Tucson, AZ Online, Global Direct	Yes
EPID 479	3	Infections and Epidemics (3 units)	None	Online, iCourse	Main-Tucson, AZ Online, Global Direct	Yes
EPID 411	3	Health and Disease Across Time and World (3 units)	None	Online, iCourse	Main-Tucson, AZ Online, Global Direct	Yes
EHS 489	3	Public Health Preparedness	None	Online, iCourse	Main-Tucson, AZ Online, Global Direct	Yes

VI. CONTACTS AND ADMINISTRATION

UNDERGRADUATE

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

John Ehiri, PhD, MPH, MSc (Econ.)
Associate Dean for Academic Affairs
Mel and Enid Zuckerman College of Public Health
Email: jehiri@arizona.edu

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.):

Melanie Fleck, MPH, CHES
Coordinator, Undergraduate Programs
Mel & Enid Zuckerman College of Public Health
Email: mfleck@arizona.edu

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:

John Ehiri, PhD, MPH, MSc (Econ.)
 Professor & Associate Dean for Academic Affairs
 Iman Hakim, MD, PhD, MPH, Dean, Mel & Enid Zuckerman College of Public Health
 Melanie Fleck, MPH, CHES, Coordinator, Undergraduate Programs

VII. **Learning Outcomes** - Complete this table as a summary of the learning outcomes from your assessment plan, using these examples as a model. If you need assistance completing this table and/or the Curriculum Map, please see the resources at the [Office of Instruction and Assessment](#) or contact them [here](#).

Learning Outcome # 1
<ul style="list-style-type: none"> Students will assess emergency and disaster risks using a risk management approach
Concept
<ul style="list-style-type: none"> Students will articulate basic concepts, terminology, and models of disaster risk management
Competency
<ul style="list-style-type: none"> Students will apply Disasters Risk Reduction (DRR) theories and strategies
Learning Outcome # 2
<ul style="list-style-type: none"> Students will be able to describe epidemiological procedures for investigating population risks and exposures to public health emergencies and pandemics
Concept
Students will explore epidemiological steps for outbreak investigation
Competency
<ul style="list-style-type: none"> Students will demonstrate skills in conducting epidemiological contact tracing to support public health response during disease outbreaks, pandemics and other emergencies
Learning Outcome # 3
<ul style="list-style-type: none"> Students will be able to identify procedures for planning and implementing public health emergency and pandemic response and recovery activities.
Concept:
<ul style="list-style-type: none"> Students will review requirements in implementing public health emergency and pandemic response and recovery activities.
Competency
<ul style="list-style-type: none"> Students will describe processes for emergency and pandemic preparedness planning in order to improve emergency/disaster response and recovery activities.
Learning Outcome # 4:
<ul style="list-style-type: none"> Students will identify essential elements of critical incident command planning, implementation, and evaluation
Concept
<ul style="list-style-type: none"> Students will review examples of pandemic response incident command systems
Competency
<ul style="list-style-type: none"> Students will describe procedures for setting up an incident command system

Curriculum Map: Undergraduate Certificate in Public Health Emergency and Epidemic Preparedness

Learning Outcomes				
	Assess emergency and disaster risks using a risk management approach	Describe epidemiological procedures for investigating population risks and exposures to public health emergencies and pandemics	Identify procedures for planning and implementing public health emergency and pandemic response and recovery activities.	Identify procedures for planning and implementing public health emergency and pandemic response and recovery activities.
Courses and Learning Activities				
EHS 1XX: Foundation of Disasters Management and Response (3 units)	I/A		P/A	

EHS 3XX: Fundamentals of Public Health Emergency and Epidemic Response (3 units)	I	I	I/A	P/A
EPID 309: Introduction to Epidemiology (3 units)	I	P/A		
LEGEND: I= Introduced, P= Practiced, A= Assessed, I/P= Introduced/Practiced, P/A= Practiced/Assessed				

XII. ASSESSMENT PLAN FOR STUDENT LEARNING- using the table below, provide a schedule for program assessment of intended student learning outcomes 1) while students are in the program and 2) after completion of the certificate. Add rows as needed. Delete EXAMPLE row.

Learning Outcomes	Sources(s) of Evidence	Assessment Measures	Data Collection Points
Assess emergency and disaster risks using a risk management approach	Course-embedded continuous assessments; exit survey	Graded weekly discussion assignments, reading reflection assignments, case study analysis	Weekly, mid-term, end of term and upon completion of program
Describe epidemiological procedures for investigating population risks and exposures to public health emergencies and pandemics	Course-embedded continuous assessments; exit survey	Graded weekly discussion assignments, reading reflection assignments, case study analysis of administrative strategies, submission of assignment on proposed innovative admin strategy	Weekly, mid-term, end of term and upon completion of program
Identify procedures for planning and implementing public health emergency and pandemic response and recovery activities	Course-embedded continuous assessments; exit survey	Graded weekly discussion assignments, reading reflection assignments, case study analysis; mock tribal ethics review	Weekly, mid-term, end of term and upon completion of program
Identify essential elements of critical incident command planning, implementation, and evaluation	Course-embedded continuous assessments; exit survey	Graded weekly discussion assignments, reading reflection assignments, policy change proposal	Weekly, mid-term, end of term, and upon completion of program

SAMPLE PLAN OF STUDY- provide a sample plan of study.

Fall (First semester)
EHS 1XX: Foundation of Disasters Management and Response (3 units)
EHS 3XX: Fundamentals of Public Health Emergency and Epidemic Response (3 units)
Spring (Second semester)
EPID 309: Introduction to Epidemiology (3 units)
Elective (3 units)

VII. REQUIRED SIGNATURES

Department Head (print name and title): Kelly Reynolds, Department Chair of Community Environment and Policy

Department Head's signature:

Date: 01/12/22





Date: 1/13/2022

For use by Curricular Affairs (Undergraduate):

Committee	Approval date
APS	
Undergraduate Council	
Undergraduate College Academic Administrators Council	

BUDGET PROJECTION FORM

Name of Proposed Program or Unit: Undergraduate Certificate in Public Health Preparedness (Main and Online Campus) offered by the Mel & Enid Zuckerman College of Public Health - 12 units

Budget Contact Person: John Ehiri, PhD	Projected		
	1st Year 2021 - 2022	2nd Year 2022 - 2023	3rd Year 2023 - 2024
METRICS			
Net increase in annual college enrollment UG	6	11	25
Net increase in college SCH UG	72	132	300
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		0.10	0.20
FUNDING SOURCES			
Continuing Sources			
UG RCM Revenue (net of cost allocation)	2,376	4,356	9,900
Grad RCM Revenue (net of cost allocation)			
Program Fee RCM Revenue (net of cost allocation)			
F and A Revenues (net of cost allocations)			
UA Online Revenues	13,248	24,288	55,200
Distance Learning Revenues			
Reallocation from existing College funds (attach description)			
Other Items (attach description)			
Total Continuing	\$ 15,624	\$ 28,644	\$ 65,100
One-time Sources			
College fund balances			
Institutional Strategic Investment			
Gift Funding			
Other Items (attach description)			
Total One-time	\$ -	\$ -	\$ -
TOTAL SOURCES	\$ 15,624	\$ 28,644	\$ 65,100
EXPENDITURE ITEMS			
Continuing Expenditures			
Faculty	-	13,000	26,000
Other Personnel			
Employee Related Expense	-	4,030	8,060
Graduate Assistantships			
Other Graduate Aid			
Operations (materials, supplies, phones, etc.)			
Additional Space Cost			
Other Items (attach description)			
Total Continuing	\$ -	\$ 17,030	\$ 34,060
One-time Expenditures			
Construction or Renovation			
Start-up Equipment			
Replace Equipment			
Library Resources			
Other Items (attach description)			
Total One-time	\$ -	\$ -	\$ -
TOTAL EXPENDITURES	\$ -	\$ 17,030	\$ 34,060
Net Projected Fiscal Effect	\$ 15,624	\$ 11,614	\$ 31,040

There are no similar programs at the UA and all courses offered in the College of Public Health.