

New Academic Program Workflow Form

General

Proposed Name: One Health

Transaction Nbr: 00000000000070

Plan Type: Minor

Academic Career: Undergraduate

Degree Offered:

Do you want to offer a minor? N

Anticipated 1st Admission Term: Fall 2021

Details

Department(s):

PBLH

DEPTMNT ID	DEPARTMENT NAME	HOST
4206	Community, Environment & Pol	Y

Campus(es):

GLBD

LOCATION	DESCRIPTION
ONLN	UA Online

MAIN

LOCATION	DESCRIPTION
TUCSON	Tucson

ONLN

LOCATION	DESCRIPTION
ONLN	UA Online

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

Plan admission types:

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

Non Degree Certificate (UCRT only): N

Other (For Community Campus specifics): N

Plan Taxonomy: 51.9999, Health Professions and Related Clinical Sciences, Other.

Program Length Type: Program Length Value: 0.00

Report as NSC Program:

SULA Special Program:

Print Option:

Diploma: Y Minor, One Health

Transcript: Y Minor, One Health

Conditions for Admission/Declaration for this Major:

Students are required to have a GPA of 2.5. There are no prerequisites outside or beyond the undergraduate requirement of a minor.

Requirements for Accreditation:

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

Program Comparisons

University Appropriateness

The proposed program supports UAs ambitions for institutional excellence and distinctiveness. The expansion of a One Health program to include additional trainings to improve public health is aligned with the MEZCOPH mission in service learning and to the 2016 Council on Education for Public Health (CEPH) accreditation criteria associated with providing students with an ecological perspective on the connections among human health, animal health, and ecosystem health. The proposed initiative will establish the UA as a distinct leader in both multidisciplinary, interprofessional, education and research. A focus on global partnership building and a multi-pronged learning strategy will ensure availability of a workforce that is prepared and equipped to address present challenges at the transect of humans, animals, and the environment.

Arizona University System

NBR	PROGRAM	DEGREE	#STDNTS	LOCATION	ACCRDT
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Peer Comparison

According to the One Health Commission, there are a total of only 3 One Health minor programs in the US. Two of these programs are offered through Ferrum College, Ferrum, VA and Berry College, Mount Berry, GA. These two programs are similar to our proposed program and require 18 units. These programs explore the global complex interplay of altered environments and infectious diseases. While these programs are similar, our program is uniquely designed from public health perspective. Our program focuses on ; 1) understanding the interaction between animals, environment and human health; 2) Interventions to prevent spread of zoonotic diseases; 3) role of culture and socioeconomic factors in spread of zoonotic diseases; and 4) one health systems thinking; and 5) outbreak and emergency preparedness among others. The minor program offered at Ferrum College does offer any public health courses and the one from Berry College has one course in public health. The third program is offered through the Fontbonne University, St. Louis, MO and is different from our program. The program requires 25 credits and focuses on both sciences and humanities. This program has three cores; 1) biology, 2) communication; and 3) history, ethics and policy. While all programs in One Health focus on understanding the interaction between animal, the environment and human health, the University of Arizona minor program is uniquely designed to provide one health foundations from public health perspective, and to prepare future workforce and scientists to address complex public health issues.

Faculty & Resources

Faculty

Current Faculty:

INSTR ID	NAME	DEPT	RANK	DEGREE	FCLTY/%
00909419	Mona Arora	4206	Instructor	Doctor of Philosophy	30.00
01011437	Jonathan Sexton	4206	Instructor	Doctor of Philosophy	5.00
02134265	Aminata Kilungo	4206	Assit. Prof. Pract.	Doctor of Philosophy	10.00
08605812	Kelly Reynolds	4206	Professor	Doctor of Philosophy	3.00
22073285	Katherine Ellingson	4204	Assit. Prof	Doctor of Philosophy	10.00
22060697	Marc Verhougstraete	4206	Assit. Prof	Doctor of Philosophy	4.00

Additional Faculty:

none

Current Student & Faculty FTE

DEPARTMENT	UGRD HEAD COUNT	GRAD HEAD COUNT	FACULTY FTE
4206	0	56	15.00

Projected Student & Faculty FTE

DEPT	UGRD HEAD COUNT			GRAD HEAD COUNT			FACULTY FTE		
	YR 1	YR 2	YR 3	YR 1	YR 2	YR 3	YR 1	YR 2	YR 3
4206	8	15	25	61	66	71	15.00	15.00	15.00

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:

none

Other Support Needed over the Next Three Years:

No additional support staff or assistance will be needed for the next three years.

Comments During Approval Process

8/20/2020 11:50 AM

JEHIRI

Comments
Approved.

8/21/2020 11:30 AM

SWIELAND

Comments
Approved for AZ Online Fall 21



**NEW ACADEMIC PROGRAM-STANDALONE UNDERGRADUATE MINOR
ADDITIONAL INFORMATION FORM**

- I. MINOR DESCRIPTION**– provide a marketing/promotional description for the proposed minor. Include the purpose, nature, and highlights of the curriculum, faculty expertise, etc. The description should match departmental and college websites, handouts, promotional materials, etc.

The One Health curriculum is designed to prepare students to tackle complex challenges in addressing zoonotic diseases. This discipline is even more relevant in our current time where the world is trying to address the novel Corona virus (COVID-19) pandemic. The minor in One Health aims to prepare students to have the foundational knowledge in One Health that can be applied in different settings for disease prevention while preparing others to pursue an advanced degree. Students will take courses in different disciplines within the College and some electives outside the College. The College of Public Health has faculty expertise in different One Health relevant areas including in Environmental Health Sciences, Epidemiology, Biostatistics, Global Health, Health Behavior and Health Promotion to name a few. All these disciplines are reflected in the proposed curriculum. In addition, the College of Public Health has an existing One Health MPH program and a One Health faculty group to support One Health discipline from undergraduate to graduate level.

The marketing of the One Health minor program is part of the broader One Health program development which includes an undergraduate sub-plan in One Health and a graduate certificate in One Health. The broader One Health program is funded through the Provost Investment Funds (PIF). Part of the funding support has been allocated for marketing, advertising and recruitment.

- II. NEED FOR THE MINOR/JUSTIFICATION**- provide market analysis data or other tangible evidence of the need for and interest in the proposed minor. This might include results from surveys of current students, alumni, and/or employers or reference to student enrollments in similar programs in the state or region. Curricular Affairs can provide a job posting/demand report by skills obtained/outcomes of the proposed minor. Please contact the [Office of Curricular Affairs](#) to request the report for your proposal.

One Health is a relatively new academic discipline that has been recognized worldwide as a way to understand and address global challenges related to health. The One Health paradigm recognizes connections among the health of animals, the environment, and humans. New strategies are needed to cope with changing ecosystems that lead to altered patterns of disease transmission. Zoonotic infections (i.e., those spread between animals and people) are common in the U.S. and globally such as the current COVID-19 outbreak. For instance, since the Ebola outbreak in West Africa, United States Agency of International Development (USAID) initiated the One Health Workforce Project to develop the future of One Health work force to prevent, detect, and respond to infectious diseases through a partnership with different Universities in the US and across the globe¹.

A minor in One Health will prepare students for job opportunities in different areas including research, health education, community health and related discipline, and provides good foundations for graduate school. The One Health minor will allow students majoring in different disciplines whether in health science or other disciplines, to get additional training in One Health to broaden their employment opportunities. For those who will pursue an advanced degree, the minor will allow them the opportunity to specialize in different areas including One Health, Environmental Health Sciences, Epidemiology, Global Health, Veterinary Sciences and other health and research related fields, in addition to their major disciplines. Job prospect for those graduating with either a BS or Graduate degree in these related Public Health disciplines are very good. Expected career growth in just the few disciplines mentioned above are between 5-18 % with salaries ranging from \$46,000 - \$76,000^{2,3,4}

Despite the recognized need, there are less than 10 bachelor's level One Health programs across the U.S., including majors and minors and even fewer globally⁵. The University of Arizona has an opportunity to be an early adopter to attract and train undergraduates in the growing field of One Health globally. The minor in One Health aims to target 1) on campus students; 2) UA online; and 3) Global campus.

¹ <https://vetmed.umn.edu/centers-programs/global-one-health-initiative/one-health-workforce/one-health-workforce-publications>

² Bureau Labor of Statistics- Health Educators: <https://www.bls.gov/ooh/community-and-social-service/health-educators.htm>

³ Bureau Labor of Statistics- Environmental Scientists : <https://www.bls.gov/ooh/life-physical-and-social-science/environmental-scientists-and-specialists.htm>

⁴ Bureau Labor of Statistics - <https://www.bls.gov/ooh/life-physical-and-social-science/epidemiologists.htm>

⁵ One Health Commission - https://www.onehealthcommission.org/en/resources_services/oh_opportunities_bulletin_board/

III. **MINOR REQUIREMENTS**– complete the table below by listing the minor requirements, including minimum number of credit hours, required core, electives, and any special requirements. Note: information in this section must be consistent throughout the proposal documents (comparison charts, curricular/assessment map, etc.). Delete the EXAMPLE column before submitting/uploading.

Minimum total units required	18
Minimum upper-division units required	15
Total transfer units that may apply to minor	0
List any special requirements to declare/admission to this minor (completion of specific coursework, minimum GPA, interview, application, etc.)	At the declaration of this minor, a minimum cumulative GPA of 2.5 is required.
Minor requirements. List all required minor requirements including core and electives. Courses listed must include course prefix, number, units, and title. Mark new coursework (New). Include any limits/restrictions needed (house number limit, etc.). Provide email(s)/letter(s) of support from home department head(s) for courses not owned by your department.	<p>Core requirements (15 units)</p> <ul style="list-style-type: none"> • EHS 195 One Health in Action (3 units) • EPID 309 Introduction to Epidemiology (3 units) • EPID/EHS 445/545 One Health Foundations (3 units) • EHS 446/546 One Health Approach and Case Studies (3 units) • EHS 425 Public Health Lens to Climate Change (3 units) <p>Electives (3 units)</p> <ul style="list-style-type: none"> • EHS 489 Public Health Preparedness course • EHS 418 introduction to health risk assessment • HPS 409 Global Water, Sanitation and Hygiene (WaSH) • EHS 420/520 Environmentally Acquired Illnesses • EHS 439A Outbreaks and Environmental Microbiology • AIS 431A/531A Traditional Ecological Knowledge • ENV 477 Principles of Ecotoxicology
Internship, practicum, applied course requirements (Yes/No). If yes, provide description.	None
Additional requirements (provide description)	None
Any <u>double-dipping restrictions</u> (Yes/No)? If yes, provide description.	Public health majors cannot also be in the One Health minor

IV. CURRENT COURSES—using the table below, list all existing courses included in the proposed minor. You can find information to complete the table using the [UA course catalog](#) or [UAnalytics](#) (Catalog and Schedule Dashboard> “Printable Course Descriptions by Department” On Demand Report; right side of screen). If the courses listed belong to a department that is not a signed party to this implementation request, upload the department head’s permission to include the courses in the proposed minor and information regarding accessibility to and frequency of offerings for the course(s). Upload letters of support/emails from department heads to the “Letter(s) of Support” field on the UAccess workflow form. Add rows to the table, as needed.

Course prefix and number (include cross-listings)	Units	Title	Course Description	Pre-requisites	Modes of delivery (online, in-person, hybrid)	Typically Offered (F, W, Sp, Su)	Dept signed party to proposal? (Yes/No)
EPID 309	3	Introduction to Epidemiology	This course will introduce students to basic principles and methods used in epidemiology. The course will include basic research designs, estimating outcome measures, and establishing cause and effect and effectiveness of interventions to prevent and cure disease	Math 112 or higher (Exception approved by academic advisor or faculty)	In-person and online	F, Sp	Yes
EHS 425	3	Public Health Lens to Climate Change	This course is designed to provide foundational knowledge in the various, complex mechanisms through which anthropogenic changes influence the health of the environment and subsequently human health. During this course, students will be introduced to key concepts including health risks associated with climate change and other human-mediated global environmental changes; local, regional, and national efforts	None	In person	F	Yes

			underway to understand and manage the adverse impacts, and the factors influencing progress on this issue. Students will have the opportunity to engage with researchers and practitioners to learn about the current science as well as challenges and opportunities associated with identifying, managing, and addressing the health implications of climate change and other anthropogenic changes.				
EHS 418	3	Introduction to Human Health Risk Assessment	The purpose of this course is to enhance student's knowledge and skills related to environmental risk assessment, including hazard assessment, exposure assessment, toxicity assessment, and risk characterization	None	In person	F	Yes
EPID 479	3	Infections and Epidemics	This course will take a multidisciplinary approach to examining the impact of infectious diseases on human populations, with an emphasis on relevant epidemiologic concepts	None	In person	S	Yes
HPS 409		Global Water, Sanitation and Hygiene (WaSH)	The course is designed to provide the students an understanding of Global Water, Sanitation and Hygiene (WaSH). The course will examine the historic background, health impact and global burden of diseases related to WaSH. In addition, the course will examine	None	Online	S	Yes

			the impact of WaSH and gender, and look at WaSH technologies and programming, current status and challenges in achieving WaSH for all				
EHS 420/520		Environmentally Acquired Illnesses	Illnesses related to environmental exposures are on the rise but frequently misdiagnosed due to a lack of understanding of the complexities of multiple hazard exposures and variable health outcomes. This course provides an overview of common and emerging Environmentally Acquired Illnesses (EAIs) and explores the multitude of hazards, conditions, and predisposing factors related to human disease. Students will learn how to identify gaps in the current model of patient evaluation and treatment. In addition, they will critique current research design and gain hands on experience in developing a systems approach to understanding, evaluating, and communicating the impact and control of EAIs relative to human health.	None	In person	S	Yes
EHS 439A	3	Outbreaks and Environmental Microbiology	This course will explore the microbial and environmental aspects and associated intervention measures used during historical and present-day outbreaks. The microbial aspect	None	Online	Su	Yes

			will include characteristics specific to each pathogen such as virulence factors, secondary metabolites, routes of infection and the role these factors played in the spread of the pathogen. Environmental aspects will include climate, location and related factors, societal influence and the effects that these factors have on the pathogens. Lastly, an overview of the intervention strategies that were used to control the spread and survival of the pathogen will be assessed.				
EHS	489	Public Health Preparedness	This course is designed to introduce students to the emergency preparedness discipline of public health using course work designed for current public health practitioners. During this course, students can expect to gain proficiency in the National Incident Management System and attain Centers for Disease Control & Prevention (CDC) Emergency Responder Tier Two level credentials (i.e., Certification in FEMA courses ICS 100, 200, 700, and 800). Students will hear from subject matter experts on various topics in relation to public health emergency preparedness and develop a strong foundation in the	None	In person	F	Yes

			principles of the discipline. The course is taught using a blended format of both online and in-class sessions.				
EPID 411	3	Health and Diseases Across Time and Worlds	This is a course that introduces students to human variation and corresponding global trends in disease prevalence, and how these trends may be driven by evolutionary, historical, genetic, cultural, and environmental factors. Topics include human evolution; current and past disease prevalence; geographical distribution of disease; demographic and epidemiological transitions; origins of health disparities; genetics, and epigenetics.	None	In person	S	Yes

V. **NEW COURSES NEEDED** – using the table below, list any new courses that must be created for the proposed program. If the specific course number is undetermined, please provide level (ie CHEM 4**). Add rows as needed. Is a new prefix needed? If so, provide the subject description so Curricular Affairs can generate proposed prefix options.

Course prefix and number (include cross-listings)	Units	Title	Course Description	Pre-requisites	Modes of delivery (online, in-person, hybrid)	Status*	Anticipated first term offered	Typically Offered (F, W, Sp, Su)	Dept signed party to proposal? (Yes/No)	Faculty members available to teach the courses
EHS/EPID 445/545	3	One Health Foundations	The first emphasizes approaches and methods in One Health practice including outbreak investigations, risk factor analyses, surveillance, cost-effectiveness, evaluation, and advocacy. The second module examines how microorganisms influence health and interact simultaneously with humans, animals, and plants in the form of zoonotic diseases and environmental	EPID 309	In person and Online	A	Spring 2021	S and F	Yes	Yes

			pathogens. The third module explores macro-level relationships such as human-animal companionship, agriculture, migration, climate change, and built environment.							
EHS 446/546	3	One Health Approach and Case Studies	This course will examine zoonotic diseases, diseases that can be transmitted from animals to humans, challenges and opportunities on how to address those diseases from One Health perspective. Multi-sectoral approach and collaborations being one of the key strengths of One Health approach, this course will also examine the role of collaborations including communities, and	EHS/EPID 445/545	Online	A	Fall 2021	F	Yes	Yes

			the role of cultural competency in addressing public health issues globally.							
EHS 195	3	One Health in Action	One Health in Action course will provide a thorough introduction to the basics of one health through the different perspectives of disease ecology, conservation, veterinary and human medicine, and environmental health. The course will include lectures based on active learning, in class activities, case studies, augmented or simulated environmental experiences, and a semester long writing assignment on topical issues.	None	Online	D	Spring 2021	S	Yes	Yes

*In development (D); submitted for approval (S); approved (A)

Subject description for new prefix (if requested). Include your requested/preferred prefix, if any:

VI. FACULTY INFORMATION- complete the table below. If UA Vitae link is not provided/available, attach a short CV (2-3 pages) to the end of the proposal or upload to the workflow form. UA Vitae profiles can be found in the [UA directory/phonebook](#). Add rows as needed. Delete the EXAMPLE rows before submitting/uploading. **NOTE: full proposals are distributed campus-wide, posted on committee agendas and should be considered “publicly visible”.** Contact the [Office of Curricular Affairs](#) if you have concerns about CV information being “publicly visible”.

Faculty Member	Involvement	UA Vitae link or “CV attached”
Aminata Kilungo	<ul style="list-style-type: none"> • Minor program development • Course development and teaching EHS 446/546 One Health Approach and Case Studies 	https://publichealth.arizona.edu/directory/aminata-kilungo
Jonathan Sexton	<ul style="list-style-type: none"> • Course development and teaching EHS 446/546 One Health Approach and Case Studies 	https://publichealth.arizona.edu/directory/jonathan-sexton
Mona Arora	<ul style="list-style-type: none"> • Course development and teaching EHS/EPID 445/545 One Health Foundations (online) 	https://publichealth.arizona.edu/directory/mona-arora
Katherine Ellingson	<ul style="list-style-type: none"> • Course development EHS/EPID 445/545 One Health Foundations (in person) 	https://profiles.arizona.edu/person/kellingson
March Verhougstraete	<ul style="list-style-type: none"> • Course development and teaching EHS 195 One Health in Action 	https://profiles.arizona.edu/person/mverhougstraete
Kelly Reynolds	<ul style="list-style-type: none"> • Minor program development 	https://profiles.arizona.edu/person/reynolds

VII. STUDENT LEARNING OUTCOMES AND CURRICULUM MAP—describe what students should know, understand, and/or be able to do at the conclusion of this minor. Work with [Office of Instruction and Assessment](#) to create a curricular map using Taskstream. Include your curricular map in this section (refer to Appendix A for sample Curriculum Map generated using Taskstream).

Curriculum Map:

Courses and Learning Outcome

	Identify environmental microbes that cause disease in humans, animals, and plants	Describe the broad applicability of epidemiologic methods to clinical and basic science as well as public policy	Define One Health as it applies to public health theory and practice	Identify multiple methods for approaching One Health problems scientifically	Assess One Health approach for local, regional, national and global pandemic responses	Demonstrate conceptual skills in addressing zoonotic diseases from One Health perspectives	Evaluate the role and importance of multi-sectoral collaboration in addressing zoonotic diseases
EHS 195 One Health in Action	I			I		I	
EPID 309 Introduction to Epidemiology		I					
EHS/EPID 445/545 One Health Foundations	A	A	I	A	P	P	A
EHS 446/546 One Health Approach and Case Studies	A		I	A	A	P	P
LEGEND: I = Introduced P = Practiced A = Assessed							

VIII. 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 minor. Add rows as needed. Delete EXAMPLE row.

Learning Outcomes	Sources(s) of Evidence	Assessment Measures	Data Collection Points
Identify environmental microbes that cause disease in humans, animals, and plants	Course-embedded assessments	In development	EHS 195 One Health in Action
Describe the broad applicability of epidemiologic methods to clinical and basic science as well as public policy	Course-embedded assessments	Summative critical self-reflections	EPID 309 Introduction to epidemiology
Define One Health as it applies to public health theory and practice	Course-embedded assessments and Exit survey	Article brief #1, Quiz # 1	EHS/EPID 445/545 One Health Foundations
Identify multiple methods for approaching One Health problems scientifically	Course-embedded assessments and Exit survey	Article brief #1, Quiz # 1	EHS/EPID 445/545 One Health Foundations
Assess One Health approach for local, regional, national and global pandemic responses	Course-embedded assessments and Exit survey	Quiz # 3	EHS/EPID 445/545 One Health Foundations
Demonstrate conceptual skills in addressing zoonotic diseases from One Health perspectives	Course-embedded assessments and Exit survey	Final paper and final presentation	EHS 446/546 One Health Approach and Case Studies
Evaluate the role and importance of multi-sectoral collaboration in addressing zoonotic diseases	Course-embedded assessments and Exit survey	Final paper, group discussion #5	EHS 446/546 One Health Approach and Case Studies

IX. ANTICIPATED STUDENT ENROLLMENT-complete the table below. What concrete evidence/data was used to arrive at the numbers?

5-YEAR PROJECTED ANNUAL ENROLLMENT					
	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year
Number of Students	8	15	25	35	45

Data/evidence used to determine projected enrollment numbers:

The College of Public Health has an established minor in Public Health with over 200 students. Based on our existing Public Health minor enrollments, the anticipated student enrollment for the first year is 8 students. However, it is possible that we will have more students given the online nature of the program and the growing interest in One Health programs.

X. ANTICIPATED MINORS AWARDED- complete the table below, beginning with the first year in which minors will be awarded. How did you arrive at these numbers? Take into consideration departmental retention rates.

PROJECTED MINORS AWARDED ANNUALLY					
	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year
Number of Minors	8	15	25	35	45

Data/evidence used to determine number of anticipated minors awarded annually:

Anticipated minor awarded for the first year is 8 students. However, it is possible that we will have more students enrolled and therefore more minors awarded given the online nature of the program and the growing interest in One Health programs.

XI. PROGRAM DEVELOPMENT TIMELINE- describe plans and timelines for 1) marketing the minor and 2) student recruitment activities.

The marketing of the One Health minor program is part of the broader One Health program development which includes undergraduate emphasis area and a graduate certificate in One Health. We have budgeted for the marketing and student recruitment efforts to begin Summer of 2020-Summer 2021. As part of these efforts, we will work with University of Arizona Mel and Enid Zuckerman College of Public Undergraduate coordinators and students ambassadors to recruit during high schools and present in freshman classes throughout campus. We are also developing a 100-level course that high school students can take for credit as part of the recruitment strategy to expose high school students to One Health.

XII. DIVERSITY AND INCLUSION-describe how you will recruit diverse students and faculty to this minor. In addition, describe retention efforts in place or being developed in order to retain students.

As part of the marketing and recruitment process, we will target a diverse body of students and working professionals. MEZCOPH has a diverse body of faculty and the course will be taught by existing faculty.

Peer Comparison – One Health Minor

According to the One Health Commission, there are a total of only 3 One Health minor programs in the US. Two of these programs are offered through Ferrum College, Ferrum, VA and Berry College, Mount Berry, GA. These two programs are similar to our proposed program and require 18 units. These programs explore the global complex interplay of altered environments and infectious diseases. While these programs are similar, our program is uniquely designed from public health perspective. Our program focuses on ; 1) understanding the interaction between animals, environment and human health; 2) Interventions to prevent spread of zoonotic diseases; 3) role of culture and socioeconomic factors in spread of zoonotic diseases; and 4) one health systems thinking; and 5) outbreak and emergency preparedness among others. The minor program offered at Ferrum College does offer any public health courses and the one from Berry College has one course in public health. The third program is offered through the Fontbonne University, St. Louis, MO and is different from our program. The program requires 25 credits and focuses on both sciences and humanities. This program has three cores; 1) biology, 2) communication; and 3) history, ethics and policy. While all programs in One Health focus on understanding the interaction between animal, the environment and human health, the University of Arizona minor program is uniquely designed to provide one health foundations from public health perspective, and to prepare future workforce and scientists to address complex public health issues.

BUDGET PROJECTION FORM
Name of Proposed Program or Unit: COPH UG One Health Minor 18 units

Budget Contact Person: John Ehiri, PhD	Projected		
	1st Year 2021 - 2022	2nd Year 2023 - 2024	3rd Year 2024 - 2025
METRICS			
Net increase in annual college enrollment UG	8	15	25
Net increase in college SCH UG	72	135	225
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		0.05	0.05
FUNDING SOURCES			
<u>Continuing Sources</u>			
UG RCM Revenue (net of cost allocation)	10,800	20,250	33,750
Grad RCM Revenue (net of cost allocation)			
Program Fee RCM Revenue (net of cost allocation)	2,160	4,050	6,750
F and A Revenues (net of cost allocations)			
UA Online Revenues			
Distance Learning Revenues			
Reallocation from existing College funds (attach description)			
Other Items (attach description)			
Total Continuing	\$ 12,960	\$ 24,300	\$ 40,500
<u>One-time Sources</u>			
College fund balances			
Institutional Strategic Investment			
Gift Funding			
Other Items (attach description)			
Total One-time	\$ -	\$ -	\$ -
TOTAL SOURCES	\$ 12,960	\$ 24,300	\$ 40,500
EXPENDITURE ITEMS			
<u>Continuing Expenditures</u>			
Faculty	-	6,500	6,500
Other Personnel			
Employee Related Expense	-	2,015	2,015
Graduate Assistantships			
Other Graduate Aid			
Operations (materials, supplies, phones, etc.)			
Additional Space Cost			
Other Items (attach description)			
Total Continuing	\$ -	\$ 8,515	\$ 8,515
<u>One-time Expenditures</u>			
Construction or Renovation	-	-	-
Start-up Equipment	-	-	-
Replace Equipment	-	-	-
Library Resources	-	-	-
Other Items (attach description)			
Total One-time	\$ -	\$ -	\$ -
TOTAL EXPENDITURES	\$ -	\$ 8,515	\$ 8,515
Net Projected Fiscal Effect	\$ 12,960	\$ 15,785	\$ 31,985

MEMO

DATE: September 8, 2020

TO: Kelly Reynolds, Professor and Head, Environmental Health Sciences
Aminata Kilungo, Assistant Professor of Practice and Program Director,
Environmental Health Sciences

FROM: Michael Worobey, Professor and Head, Ecology & Evolutionary Biology

RE: Use of ECOL 409 in One Health minor and new BS emphasis area

We approve the following course for use in the undergraduate curriculum for the **One Health** minor and emphasis area, as specified below:

ECOL 409 Evolution of Infectious Disease; emphasis area elective, minor elective

Managing Administrator: Michael Worobey, Professor and Head, Ecology & Evolutionary Biology

Managing Administrator's Signature:  Date: September 8, 2020



From: [Kilungo, Aminata P - \(paminata\)](#)
To: [Chorover, Jon - \(chorover\)](#)
Cc: [Heffernan, Linda T - \(heffernl\)](#)
Subject: RE: memorandum of support for a new minor and emphasis area in One Health
Date: Friday, June 19, 2020 11:59:00 AM

Dear Dr. Chorover,

Thank you for your quick response and for your support.

Sincerely,
Aminata

From: Chorover, Jon - (chorover)
Sent: Friday, June 19, 2020 11:46 AM
To: Kilungo, Aminata P - (paminata) <paminata@arizona.edu>
Cc: Heffernan, Linda T - (heffernl) <heffernl@arizona.edu>
Subject: RE: memorandum of support for a new minor and emphasis area in One Health

Dear Aminata,

I did discuss this with our curriculum committee and the instructor of the course, and all are highly in favor of the listing.

Best regards,
Jon

From: Kilungo, Aminata P - (paminata) <paminata@arizona.edu>
Sent: Friday, June 19, 2020 11:44 AM
To: Chorover, Jon - (chorover) <chorover@arizona.edu>
Cc: Heffernan, Linda T - (heffernl) <heffernl@arizona.edu>
Subject: FW: memorandum of support for a new minor and emphasis area in One Health
Importance: High

Dear Dr. Chorover,

I hope this email finds you well. Please, see my request below. We were hoping to submit this today, and wanted to check if you had a chance to review and make a decision.

Sincerely,

Aminata Kilungo, PhD
Assistant Professor of Practice
Health Promotion & Environmental Health Sciences
Program Director, Environmental Health Sciences

Mel and Enid Zuckerman College of Public Health
Drachman A247
The University of Arizona
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From: Kilungo, Aminata P - (paminata)
Sent: Tuesday, June 16, 2020 11:29 AM
To: chorover@email.arizona.edu
Cc: Heffernan, Linda T - (heffernl) <heffernl@arizona.edu>
Subject: memorandum of support for a new minor and emphasis area in One Health
Importance: High

Dear Dr. Jon Chorover,

I hope this email finds you well. The Mel and Enid Zuckerman College of Public Health is proposing a new emphasis area in One Health for the Bachelor of Science degree program and a minor in One Health. We would like to add one of your courses, **ENVS 477/577 Principles of Ecotoxicology** as one of the electives. I have attached the memorandum of support for your review and signature. Please, let me know if you have any questions or would like additional information. Your support is very much appreciated.

Sincerely,

Aminata Kilungo, PhD
Assistant Professor of Practice
Health Promotion & Environmental Health Sciences
Program Director, Environmental Health Sciences
Mel and Enid Zuckerman College of Public Health
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MEMO

DATE: June 17, 2020

TO: Kelly Reynolds, Professor and Head, Environmental Health Sciences
Aminata Kilungo, Assistant Professor of Practice and Program Director,
Environmental Health Sciences

FROM: Matthew Sakiestewa Gilbert, Professor and Head, American Indian Studies

RE: Use of AIS course (s) in the One Health minor and new BS emphasis area

We approve the course(s) for use in the undergraduate curriculum for the **One Health** minor and emphasis area, as specified below:

AIS 431A/531A Traditional Ecological Knowledge; emphasis area elective, minor elective

Managing Administrator: Matthew Sakiestewa Gilbert, Professor and Head, American Indian Studies

Managing Administrator's Signature:  Date: June 17, 2020