Fay W. Boozman College of Public Health

MPH Concentration in Biostatistics (BIOS)

Program Director: D. Keith Williams
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Advisee's Name	Student ID Number	Faculty Advisor

	Completion Date
PLAGIARISM TRAINING	
Certification Test	
WRITING MILESTONE	
Skills Certification	
QR REQUIREMENT	
QR Skills Assessment	
IPE CURRICULUM	
Exposure Workshop	
Bridge Transition	
Quadruple Aim Project	
Simulation Activity	
Competency Workshop	
Required Practice Activity	
Student Educator Activity	

Plagiarism Training Requirement: All students in the COPH must adhere to the highest standards of professional and ethical conduct. Among these standards is the recognition that student written work must be original and appropriately cited. In order to facilitate understanding of this standard, all students must complete the on-line course "*How to Recognize Plagiarism: Tutorials*" at https://plagiarism.iu.edu/tutorials/ and complete the Certification Test at https://plagiarism.iu.edu/certificationTests/index.html. Upon successful completion of the test, students must provide a copy of the Validation Certificate to the COPH Office of Student and Alumni Affairs at cophoffice@uams.edu. The requirement must be completed by the first day of classes. Requirement approval date: 09.02.2020.

Writing Milestone Requirement: All students who enter the College of Public Health are required to complete a Writing Skills Assessment at the beginning of their first semester. The Assessment will identify strengths and weaknesses and highlight opportunities for improvement. Students who do not meet a predetermined score will be required to complete an online COPH 5000 Public Health Writing Workshop course. This course will address the fundamentals of good writing, writing with scholarly sources, revision strategies, and other topics in the interest of improving student writing skills. This is a non-credit curriculum requirement. Requirement approval date: 09.02.2020.

Quantitative Reasoning (QR) Requirement: Effective Fall 2022, all MPH students who enter the College of Public Health are required to complete a QR Skills Assessment at the beginning of their first semester. The QR Assessment will identify strengths and weaknesses and highlight opportunities for improvement. Students who do not meet a predetermined score will be required to complete an online COPH 5001 Public Health QR Workshop course. This course will address the fundamentals of pre-algebra, algebra, and other topics in the interest of improving student QR skills. This is a non-credit curriculum requirement. Requirement approval date: 02.02.2022.

IPE Curriculum Requirement: All COPH degree-seeking students are required to complete the UAMS Quadruple Aim Interprofessional Education (IPE) Program prior to graduation. According to the World Health Organization (WHO), *"Interprofessional Education occurs when two or more professions learn with, from and about each other to improve collaboration and the quality of care."* The IPE Program is noncredit hour earning and consists of several workshops and other activities. All aspects of the IPE Program must be completed prior to degree program completion as a condition of graduation. For more information on **IPE**, please consult the Office of Student and Alumni Affairs, the Associate Dean for Student and Alumni Affairs or visit our website: https://secure.uams.edu/cophstudent/student-handbook.aspx#ipe. Requirement approval date: 2015.

IPE CURRICULUM FOR THE MPH

1. IPE IPEC 1101 (001) EXPOSURE WORKSHOP* **Format/Event:** LIVE Exposure Workshop in August. **Timeline:** 1st semester. **Course Association:** NA **Notes:** Enroll 1st semester and complete by the end of 12th credit hour. Your IPE Program Contact will determine what date you attend.	**2. IPE IPEC 1201 (001) EXPOSURE BRIDGE TRANSITION*** **Format/Event:** Any onsite Exposure Bridge Transition event posted on the IPE website. **Timeline:** 1st semester **Course Association:** NA **Notes:** Enroll 1st semester. Requirements include submitting a reflection and verification form into Blackboard within 7 days of activity. Complete by the end of 12th credit hour.	**3. IPE IPEC 1301 (001) IMMERSION QUADRUPLE AIM PRJECT (QAP) WORKSHOP** **Format/Event:** Any QAP Workshop event posted on the IPE website. **Timeline:** 12th—24th credit hour **Course Association:** NA **Notes:** Enroll the semester of your 12th credit hour.	**4. IPE IPEC 1401 (001) IMMERSION SIMULATION** **Format/Event:** Any onsite Immersion Simulation event posted on the IPE website. **Timeline:** 12th—36th credit hour **Course Association**: NA **Notes:** Enroll the semester of your 12th credit hour.
5. IPE IPEC 1501 (001) COMPETENCE WORKSHOP* **Format/Event:** Any onsite Competence Workshop event posted on the IPE website. **Timeline:** 24th credit hour and completion of degree **Course Association:** NA **Notes:** Enroll the semester of your 24th credit hour.	**6. IPE IPEC 1601 (001) COMPETENCE PRACTICE ACTIVITY** **Format/Event:** Onsite Competence Practice Activity — APE course **Timeline:** 24th credit hour and completion of degree **Course Association:** COPH 5989 "Applied Practice Experience" (APE). This IPE activity is an assignment for the course. **Notes:** Enroll the semester of your 24th credit hour. Requirements include submitting a reflection and verification form into Blackboard within 7 days of activity.	**7. IPE IPEC 1701 (001) COMPETENCE STUDENT EDUCATOR ACTIVITY** **Format/Event:** Onsite Student Educator Activity — ILE course **Timeline:** 24th credit hour and completion of degree **Course Association:** COPH 5992 "Integrative Learning Experience Project" (ILE). This IPE activity is an assignment for the course. **Notes:** Enroll the semester of your 24th credit hour. Requirements include submitting a reflection and verification form into Blackboard within 7 days of activity.	*You may be eligible to complete the activity as an online module if you are currently working in a clinical healthcare setting. Please contact ipe@uams.edu for more information. Note: For onsite versus online/ distance options as approved events please verify with your program coordinator first. Then ensure you are registered in the correct GUS course for the delivery method (onsite v. online/distance). If you need to switch courses, you must process a course swap in GUS. IPE CURRICULUM 07.01.2022

Biology Competence Requirement: Students are required to pass all 3 exams or successfully complete (3) 1 credit hour courses prior to or within the first semester of coursework. Courses do NOT count toward the minimum 42 credit hours for the MPH degree. For more information and waiver options visit our website: http://publichealth.uams.edu/students/current-students/public-health- biology-competency-exam/.

Most Recent ASC Approval: September 2, 2020   Form Updated: August 3, 2022

ALL BIOS OPTIONS

BIOLOGY (REQUIRED)		Credit Hours	Grade	Year	Semester
ENVH 5011	Biology for Public Health: Infectious Disease	1			
ENVH 5002	Biology for Public Health: Chronic Disease	1			
ENVH 5003	Biology for Public Health: Current Issues	1			
MPH CORE – 18 Credit Hours		**Credit Hours**	**Grade**	**Year**	**Semester**
COPH 5003	Introduction to Public Health	3			
BIOS 5013	Biostatistics I	3			
ENVH 5102	Environmental and Occupational Health	3			
HPMT 5103	The Health Care System	3			
HBHE 5104	Health Behavior & Health Education	3			
EPID 5112	Epidemiology I	3			
BIOS CORE – 9 Credit Hours		**Credit Hours**	**Grade**	**Year**	**Semester**
BIOS 5212	Biostatistics II: Advanced Linear Models	3			
BIOS 5223	Biostatistics III: Multivariate Analysis and Linear Models	3			
BIOS 5213	Biostatistics Computing with SAS I	3			

MPH in BIOS

SELECTIVES FOR MPH STUDENTS (with approval of MPH advisor) – 3 Credit Hours		Credit Hours	Grade	Year	Semester
BIOS 5111	Biostatistics Computing with R I	1			
BIOS 5200	Biostatistics Computing with R II	1			
BIOS 5233	Statistical Methods for Clinical Trials	3			
BIOS 5315	Logistic Regression and Survival Analysis	3			
BIOS 5214	Categorical Data Analysis	3			
BIOS 5317	Biostatistics Computing with SAS II	3			
BIOM 5108	Special Topics in Biometry (SPSS Lab)	1			
ELECTIVE FOR MPH STUDENTS (with approval of MPH advisor) – 3 Credit Hours		**Credit Hours**	**Grade**	**Year**	**Semester**
		3			

ALL BIOS OPTIONS

PUBLIC HEALTH PRACTICE (REQUIRED) – 6 CREDIT HOURS		Credit Hours	Grade	Year	Semester
COPH 5989	Applied Practice Experience	3			
	TITLE:				
COPH 5991	*Integrative Learning Experience Seminar	1			
COPH 5992	*Integrative Learning Experience Project	2			
	TITLE:				

MINIMUM TOTAL HOURS = 42

*May not be taken concurrently with COPH 5989 Applied Practice Experience

MPH Concentration: Biostatistics		
Competency	Course	Assessment
1. Evaluate statistical associations based on multivariate methods.	BIOS 5212 Biostatistics II: Advanced Linear Models	Exams. Students will have two in-class exams and a final exam. Questions on these exams present scenarios in which a study must evaluate and interpret associations between sets of outcomes and predictors for various research settings. Assessment. A student will be evaluated based on correctly identifying the importance of associations in terms of statistical significance within the exam case studies. Grading. Grading will be performed as described in the course syllabus.
2. Produce computer code for data management and statistical analyses.	BIOS 5213 Biostatistics Computing with SAS I	Exams. Students will have 2 exams during which they are given data and asked to create computer code to process, recode, or summarize the data. Grading will focus on whether students can accomplish each data management task and produce appropriate descriptive statistical results. Grading will be performed as described in the course syllabus.
3. Choose the appropriate assumptions of fundamental linear models.	BIOS 5212 Biostatistics II: Advanced Linear Models	Exams. Students on exam 2 and 3 will be asked to choose the appropriate assumptions for fundamental statistical tests. Assessment. Students will be evaluated by correctly mapping the statistical assumptions to particular statistical tests. Grading will be performed as described in the course syllabus.
4. Examine graphical displays of data that accompany statistical analysis.	BIOS 5223 Biostatistics III: Multivariate Analysis & Linear Models	Exams. Students will be given multiple case studies on exams in which various statistical analyses and corresponding graphical displays are presented. Assessment. The student will be evaluated by correctly interpreting and stating the important elements of the graph based on the analysis of each case study. Grading. Grading will be performed as described in the course syllabus.
5. Evaluate hypothesis tests for comparing two or more groups with respect to a covariate.	BIOS 5212 Biostatistics II: Advanced Linear Models	Exams. Students will be given various case studies on exams in which two or more groups are being compared while accounting for one or more covariates. Assessment. Evaluation will focus on the student's ability to correctly determine the difference between groups while adjusting for the covariates. Grading. Grading will be performed as described in the course syllabus.