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

Academic Integrity 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 PBHL 50000 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 PBHL 50040 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.

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/.

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:** PBHL 59893 "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:** PBHL 59932 "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 COMPETENCY REQUIREMENT (Prerequisite for All MPH Degree Options)

BIOLOGY (REQUIRED)		Credit Hours	Grade	Year	Semester
ENVH 50301	Biology for Public Health: Infectious Disease	1			
ENVH 50101	Biology for Public Health: Chronic Disease	1			
ENVH 50201	Biology for Public Health: Current Issues	1			

COMPLETE THE MPH CORE (All MPH Degree Options)

MPH CORE (REQUIRED) – 18 Credit Hours		Credit Hours	Grade	Year	Semester
PBHL 50033	*Introduction to Public Health	3			
BIOS 50133	Biostatistics I	3			
ENVH 51003	Environmental Health Science	3			
HPMT 51033	The Health Care System	3			
HBHE 51043	Health Behavior & Health Education	3			
EPID 51103	Epidemiology I	3			

*See Knowledge Credit for Public Health policy in the COPH Student Handbook.

COMPLETE THE CPH EXAM PREP COURSE

CPH EXAM PREP COURSE (REQUIRED)– 1 Credit Hour		Credit Hours	Grade	Year	Semester
PBHL 59931	Certified in Public Health Exam Prep Seminar	1			

COMPLETE THE BIOS CONCENTRATION CORE & SELECTIVES

BIOS CORE (REQUIRED) – 9 Credit Hours		Credit Hours	Grade	Year	Semester
BIOS 52103	Biostatistics II: Advanced Linear Models	3			
BIOS 52233	Biostatistics III: Multivariate Analysis & Linear Models	3			
BIOS 52133	Biostatistics Computing with SAS I	3			
SELECTIVES FOR MPH IN BIOS STUDENTS (with approval of the BIOS academic advisor) –6 Credit Hours		**Credit Hours**	**Grade**	**Year**	**Semester**
BIOS 51131	Biostatistics Computing with R I	1			
BIOS 52001	Biostatistics Computing with R II	1			
REGS 51073	Design and Management of Clinical Trials	3			
BIOS 53153	Logistic Regression and Survival Analysis	3			
BIOS 52143	Categorical Data Analysis	3			
BIOS 53243	Analyzing Health Surveys	3			
BIOS 5100V	Special Topics in Biometry	1			
ELECTIVE FOR MPH IN BIOS STUDENTS (with approval of the BIOS academic advisor) – 3 Credit Hours		**Credit Hours**	**Grade**	**Year**	**Semester**
		3			

COMPLETE THE MPH CAPSTONES (All MPH Degree Options)

PUBLIC HEALTH PRACTICE (REQUIRED) – 5 CREDIT HOURS		Credit Hours	Grade	Year	Semester
PBHL 59893	Applied Practice Experience	3			
	TITLE:				
PBHL 59932	*Integrative Learning Experience Project	2			
	TITLE:				

MINIMUM TOTAL HOURS = 42

**May not be taken concurrently with PBHL 59893 Applied Practice Experience*

MPH Concentration: Biostatistics		
Competency	Course	Assessment
1. Evaluate statistical associations based on multivariate methods.	BIOS 52103 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 52133 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 52103 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 52233 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 52103 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.