Program-Level Assessment Plan

Program: Medical Anatomy and Physiology Preparatory (MAPP) Program	Degree Level (e.g., UG or GR certificate, UG major, master's program, doctoral program): Certificate
Department: Center for Anatomical Science and Education	College/School: Medicine
Date (Month/Year): July 21, 2021	Primary Assessment Contact: john.martin@health.slu.edu

Note: Each cell in the table below will expand as needed to accommodate your responses.

#	Student Learning Outcomes What do the program faculty expect all students to know or be able to do as a result of completing this program? Note: These should be measurable and manageable in number (typically 4-6 are sufficient).	Curriculum Mapping In which courses will faculty intentionally work to foster some level of student development toward achievement of the outcome? Please clarify the level at which student development is expected in each course (e.g., introduced, developed, reinforced, achieved, etc.).	Assessment Methods	
			Artifacts of Student Learning (What) 1. What artifacts of student learning will be used to determine if students have achieved this outcome? 2. In which courses will these artifacts be collected?	Evaluation Process (How) 1. What process will be used to evaluate the artifacts, and by whom? 2. What tools(s) (e.g., a rubric) will be used in the process? Note: Please include any rubrics as part of the submitted plan documents.
1	GENERAL KNOWLEDGE: Students will demonstrate competency in the clinically oriented anatomical sciences related to the human body as evidenced by the ability to: 1) Describe prenatal human development with an emphasis on the correlation of normal embryological development with common congenital malformations	Students enroll in ANAT-5200 Human Embryology during the Fall semester of the academic year. After completing this course students are expected to have mastered the conceptual basis of developmental anatomy through lectures, small group activities, a research article presentation, and examinations.	1. Direct measures of student performance include: 3 written (multiple choice question) examinations and an evaluation of a research article presentation. Indirect measures of student performance include participation in course discussions and small group (Peer Instruction) activities. 2. Artifacts will be collected from 3 exams and 1 presentation of ANAT-5200 Human Embryology.	1. Summary reports of each of the 3 exams will be provided using assessment software (ExamSoft). The summary report will be used by the course director to evaluate student performance and individual question performance. Student performance on exam questions answered below a certain threshold, as determined by the course director, are assumed to be poor questions, and are removed from the exam. Summary reports of each research article presentation will be used by the course direct to assess various presentation categories. Data and student course evaluations are reviewed

				by the individual course director, as well as with other course faculty and during faculty meetings. The CASE Director also monitors the process and works with the course director. 2. ExamSoft summary reports and research article presentation assessment rubric form will be used in the process.
2	GENERAL KNOWLEDGE: Students will demonstrate competency in the clinically oriented anatomical sciences related to the human body as evidenced by the ability to: 2) Identify and describe the microscopic and ultrastructural features of the human body with an emphasis on clinical application of the structure and function of tissues and organs	Students enroll in ANAT-5100 Human Histology and Ultrastructure during the Fall semester of the academic year. After completing this course students are expected to recognize the normal microscopic anatomy of human tissues, understand how cells associate to perform the functions for which they are specialized, understand how organized groups of cells (tissues) are arranged to form the organ systems of the body, correlate the cellular structure of organs to their specific functions, integrate histological knowledge with other anatomical science subjects (anatomy, embryology, neuroanatomy, and physiology) and recognize and use correct terminology to describe relationships, orientation, development, and movement of microanatomical structures within the human body through lectures, laboratories, small group activities, discussion sessions and examinations.	1. Direct measures of student performance include: 3 written (multiple choice questions and short answer questions) and laboratory (practical) examinations. Indirect measures of student performance include completion of laboratory worksheets, participation in course discussions and small group (Team Based Learning) activities. 2. Artifacts will be collected from ANAT-5100 Human Histology and Ultrastructure	1. Summary reports of each of the 3 written (multiple choice) exams will be provided using assessment software (ExamSoft). The summary report will be used by the course director to evaluate student performance and individual question performance. Assessment of short answer questions will be completed by the course director. Laboratory practical exams are graded by the course director and individual questions and performance on each question is tallied. Student performance on exam questions answered below a certain threshold, as determined by the course director, are assumed to be poor questions, and are removed from the exam. Data and student course evaluations are reviewed by the individual course director, as well as with other course faculty and during faculty meetings. The CASE Director also monitors the process and works with the course director. 2. ExamSoft summary reports will be used in the process.
3	GENERAL KNOWLEDGE: Students will demonstrate	Students enroll in ANAT-5400 Human Systems Physiology during the Fall semester of the	1. Direct measures of student performance include: 4 written	1. Summary reports of each of the 4 written exams will be provided using

	competency in the clinically oriented anatomical sciences related to the human body as evidenced by the ability to: 3) Describe the physiological principles and mechanisms of the human body with an emphasis on normal function and key homeostatic processes within cells, tissues and organ systems	academic year. After completing this course students are expected to describe normal cellular functions and how these are responsible for essential functions of the major human organ systems, delineate the normal interactions among organ systems that collectively promote homeostasis of the entire body, and identify normal compensatory mechanisms of organ systems to changing substrate availability, metabolic demand, and environmental stress through lectures, laboratories, small group activities, discussion sessions and examinations.	(multiple choice questions) examinations. Indirect measures of student performance include participation in course discussions and small group (Team Based Learning) activities. 2. Artifacts will be collected from ANAT-5400 Human Systems Physiology	assessment software (ExamSoft). The summary report will be used by the course director to evaluate student performance and individual question performance. Student performance on exam questions answered below a certain threshold, as determined by the course director, are assumed to be poor questions, and are removed from the exam. Data and student course evaluations are reviewed by the individual course director, as well as with other course faculty and during faculty meetings. The CASE Director also monitors the process and works with the course director. 2. ExamSoft summary reports will be used in the process.
4	GENERAL KNOWLEDGE: Students will demonstrate competency in the clinically oriented anatomical sciences related to the human body as evidenced by the ability to: 4) Identify and describe the normal structure and function of the human body with an emphasis on anatomical relationships and clinical significance	Students enroll in ANAT-5000 Human Gross Anatomy during the Spring semester of the academic year. After completing this course students are expected to recognize and use correct anatomical terminology to describe the relationships, movement, and orientation of structures in the human body, describe the form and basic function of major anatomical systems of the human body, identify (name and locate) major anatomical structures as discussed in lecture and lab, correlate various imaging modalities (radiograph, CT, MRI) with structures discussed in lecture and lab, contribute to the education of yourself and your peers by actively engaging in laboratory and peer-teaching sessions, and identify and discuss clinical manifestations of anatomical problems through lectures, laboratories, small group activities and examinations.	1. Direct measures of student performance include: 4 written (multiple choice questions) examinations, 4 laboratory practical examinations and 4 quizzes. Indirect measures of student performance include participation in course dissections and participation in laboratory practice practical exams. 2. Artifacts will be collected from ANAT-5000 Human Gross Anatomy	1. Summary reports of each of the 4 written (multiple choice) exams will be provided using assessment software (ExamSoft). The summary report will be used by the course director to evaluate student performance and individual question performance. Laboratory practical exams are graded by the course faculty and individual questions and performance on each question is tallied. Summary reports of each of the 4 quizzes will be provided using assessments in learning management system (Blackboard or Canvas). Student performance on exam questions answered below a certain threshold, as determined by the course director, are assumed to be poor questions, and are removed from the exam. Data and student course evaluations are reviewed by the individual course director, as well as with other

				course faculty and during faculty meetings. The CASE Director also monitors the process and works with the course director. 2. ExamSoft summary reports will be used in the process. Assessments in learning management system (Blackboard or Canvas) will also be used in the process.
5	GENERAL KNOWLEDGE: Students will demonstrate competency in the clinically oriented anatomical sciences related to the human body as evidenced by the ability to: 5) Identify and describe the structure and function of the human nervous system with an emphasis on functional neuroanatomical systems, concepts of key neurobiological processes, and correlation of clinical presentation with nervous system lesions through participation in didactic, small group discussions, interactive laboratories, and performance on written and laboratory examinations. These primary learning outcomes should better prepare the student for successful admission to medical, allied health professional, and/or advanced graduate programs.	Students enroll in ANAT-5300 Human Systems Neurobiology during the Spring semester of the academic year. After completing this course students are expected to demonstrate competency as evidenced by the ability to identify and describe the structure and function of the human nervous system with an emphasis on functional neuroanatomical systems, concepts of key neurobiological processes, and correlation of clinical presentation with nervous system lesions through participation in didactic lectures, small group discussions, and performance on written and laboratory examinations.	1. Direct measures of student performance include: 6 written (multiple choice questions and short answer questions) examinations, 5 laboratory practical examinations and 6 quizzes. Indirect measures of student performance include participation in assigned dissections and participation in laboratory practice practical exams. 2. Artifacts will be collected from ANAT-5000 Human Gross Anatomy	1. Summary reports of each of the 6 written (multiple choice) exams will be provided using assessment software (ExamSoft). The summary report will be used by the course director to evaluate student performance and individual question performance. Laboratory practical exams are graded by the course faculty and individual questions and performance on each question is tallied. Summary reports of each of the 6 quizzes will be provided using assessments in learning management system (Blackboard or Canvas). Student performance on exam questions answered below a certain threshold, as determined by the course director, are assumed to be poor questions, and are removed from the exam. Data and student course evaluations are reviewed by the individual course director, as well as with other course faculty and during faculty meetings. The CASE Director also monitors the process and works with the course director. 2. ExamSoft summary reports will be used in the process. Assessments in learning management system (Blackboard or Canvas) will also be used in the process.

Use of Assessment Data

1. How and when will analyzed data be used by program faculty to make changes in pedagogy, curriculum design, and/or assessment practices?

   An Anatomy Graduate Oversight committee will meet every summer semester to implement changes based on the assessment data.

2. How and when will the program faculty evaluate the impact of assessment-informed changes made in previous years?

   An Anatomy Graduate Oversight committee will meet every summer semester to evaluate the impact of assessment-informed changes.

Additional Questions

1. On what schedule/cycle will program faculty assess each of the program's student learning outcomes? (Please note: It is not recommended to try to assess every outcome every year.)

   Assessments will occur annually, assessing one outcome each year.

2. Describe how, and the extent to which, program faculty contributed to the development of this plan.

   At the directive of the SOM Associate Dean for Faculty Affairs and Professional Development and the University Assessment Director the Anatomy Graduate Director (Dr. John Martin), Anatomy Graduate Associate Director (Dr. Dan Daly) and the Graduate Programs Coordinator (Patricia Anderson) meet and identified and implemented this plan.

IMPORTANT: Please remember to submit any rubrics or other assessment tools along with this plan.