



*Course title	Case study: fundamental science mechanisms explaining clinical profiles		
Course number	MEID 820		
*Term/course availability	June to May, longitudinal, with mandatory meetings mapped during elective blocks.		
*Number of weeks	6 weeks		
*Course type	X Clinical	X Non-Clinical	X Research
		X Self-directed	X Longitudinal
Additional description on type of course			
*Meeting times and location	Monthly meetings with course Directors to assess deliverable completion (as specified in grading section) must be requested by each student by contacting coordinators by email.		
*Prerequisites	<p>X Matriculation to Texas A&M Medical School</p> <p>X Completion of 2-years of medical school with honors in 2 or more classes.</p> <p>X Students must maintain good academic standing throughout the entire elective.</p> <p>X Students must be selected from application chosen by the Office of Medical Student Research Education.</p>		
*Enrollment capacity	Six students		

Course Description

* Course description: This selective is designed for students to identify a case study of a patient they helped treat during a clerkship that was non-responsive to the standard of care. A retrospective patient case can also be considered. The goal of this course is to write a case report with a primary basic science angle. Students will review the primary clinical and basic science literature of the specific case pathology and will propose innovative and feasible mechanisms for approaches for development of a novel therapy.

The major deliverable for this course is for students to submit an innovative case report for peer-reviewed publication in high-impact medical journal. Credit hours for this course are minimum of 6 credit hours but must not exceed 9 credit hours per academic year. Course credit will be calculated based on time dedicated to your selective, for example, for a total of 40 hours (1 week) of contact time is required to receive 1.25 credit hours. Refer to Figure in page 4 for a list of activities and mandatory milestone course assignments and deliverables.

*Indicate what a typical weekly course schedule might look like:

Weekly scheduled meetings will be arranged between students and monthly meeting with a clinical and/or basic science faculty. Call Schedule (please describe): N/A

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
AM							
PM							

Instructor Information

Elective Director

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Program Coordinator

Name Selina Nigli, PhD
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Elective Director

Name Steve Maxwell, PhD
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Program Coordinator

Name Courtney Guest
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Elective Co-Director

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- 1) Principles and Guidelines for Curriculum Development: <http://medicine.tamhsc.edu/policies/pdf/curriculum-principles-guidelines.pdf>
- 2) Assessment Methods MUST be used from the following list: <http://medbiq.org/curriculum/vocabularies.pdf>
- 3) COM Medical Education Program Objectives (MEPO's): <http://medicine.tamhsc.edu/academic-affairs/curriculum/objectives/>

Objective – The student will be able to:	Taught (T) and / or Evaluated (E):	Assessment Method:	Medical Education Program Objectives
Demonstrate ability to identify a clinical case that would	Evaluated	1) AM01- Identification of clinical case.	K1: Demonstrate knowledge around the prevention, diagnosis, treatment, management, cure, and palliation of medical conditions

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likely benefit from mechanism knowledge reported in the primary peer-reviewed literature. Students will develop a mechanistic concept map and prepare a manuscript for publication.		2) AM16-Draft of mechanistic concept map. 3) AM01-Integration of literature findings in clinical case report pathology. 4) AM16-Complete manuscript draft 5) AM13-Submission of manuscript to peer reviewed journal	K2: Describe the anatomy, histology, pathology, pathophysiology of the human body as it pertains to the individual organ systems K4: Demonstrate the foundation science background necessary to promote quality patient care S7: Communicate effectively, orally and in writing, with patients and their families, colleagues, and other health professionals AB5: Strive for personal excellence in all areas of the learning and medical environment and commit to engage in life-long learning to improve patient care
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Textbook and/or Resource Material

Online modules and other resources to aid students in publishing case reports are listed below.

Resources and modules provided by Medical School Librarian:

1) COM-customized online version of the “Establishing Your Scholarly Identity as a Graduate Student” breakout session that is presented by MSL librarian, Sheila Green, at New Graduate Student Orientation for the Office of Graduate and Professional Studies (OGAPS) each semester, covering creation of a scholarly identity and use of researcher information systems, such as ORCID and Google Scholar.

2) Literature search guidance to clarify novelty of case report topic and potential unique approaches, and 3) guidance regarding potential journals to target for manuscript submission, including topic area, impact of journal, audience reach, and open access (OA)/self-archiving approach to maximize dissemination. See sample journals below:

Journal	Impact Factor	Type	OA /Archiving
Cancer Immunology Research	8.6	Cancer Immunology Miniatures	Pre-print
Genome Biology	14.0	Research, Method, Short report	Open Access
Nature Neuroscience	21.1	Neuroscience medical research	Pre-print
Trends in Genetics	10.6	Research, Method, Short report	Pre-print
Journal of Thoracic Oncology	12.5	Image/Case or Gene/Pathway of the Month, Case Reports	Post peer-review
Neuron	14.4	Report, Case Study, Primer	Post peer-review
Journal of Medical Case Reports	Scopus Quartile3	Case reports	Open Access
Case Reports in Pathology	Scopus Quartile4	Case reports	Open Access
Clinical Case Reports	Scopus Quartile3	Case reports	Open Access
Clinical Medicine Insights: Case Reports	Scopus Quartile3	Case reports	Open Access

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Case Reports in Oncological Medicine	Scopus Quartile3	Case reports	Open Access
Case Reports in Oncology	Scopus Quartile3	Case reports	Open Access
Case Reports in Neurology	Scopus Quartile3	Case reports	Open Access
Case Reports in Neurological Medicine	Not indexed in Scopus or WoS		
Case Reports in Medicine	Not indexed in Scopus or WoS		
International Medical Case Reports Journal	Scopus Quartile3	Case reports	Open Access
Neurocase	1.1	Case reports	Post peer review
Oxford Medical Case Reports	Scopus Quartile4	Case reports	Open Access
SAGE Open Medical Case Reports	Scopus Quartile4	Case reports	Open Access
World Journal of Clinical Cases	1.2	Case reports	Post publication

Students will use 6 credit hours, with 240 hours total dedication following a longitudinal timeline with specified milestones

X Clinical Evaluation Plus

The final course grade will be based in part on the following: attendance, professionalism and ethics, and learning objectives. These will be evaluated using the COM Clinical evaluation form and _____.

Reflection Paper Pass/Fail
 Clinical Evaluation Pass/fail

Please see medicine.tamu.edu website for approved clinical evaluation form. (see figure, next page)

Elective Grade

- Fail - Student fails the elective
- Pass - Student passes with some weaknesses noted
- Pass

*Comments

Grading Scale	
Satisfactory	<p>To pass this longitudinal year-long elective course, each medical student must:</p> <p>(1) Upload milestones to eCampus by the deadline:</p> <p style="padding-left: 40px;">Milestone #1: Completion of 5 assigned online modules and reading materials posted on the course website, 10%</p> <p style="padding-left: 40px;">Milestone #2: Choose clinical case study encountered during clerkship/retrospective case study. Meet with MSL librarian to discuss advice for journal selection and get guidance on relevant literature search strategies. The deliverable for this milestone is a 5-page narrative, with figures, table and concept map draft, 20%.</p> <p style="padding-left: 40px;">Milestone #3: Integration of basic science literature review into a clinical case report in a concept map schematic, 20%</p> <p style="padding-left: 40px;">Milestone #4: Submission of case report manuscript to peer reviewed journal, 35%</p> <p>(2) Attendance to mandatory group meetings and other scholarly activities, 5%</p> <p>(3) Professionalism communicating with research team, patients, collaborators, instructions, physicians, and other health care professionals 5%</p> <p>(4) Reflection paper describing learning achievements during the year-long clerkship selective (2-4 pages), 3%</p> <p>(5) Course evaluation and assessment survey, 2%</p>
Unsatisfactory	<p>Failure to complete these tasks:</p> <p>(1) Failure to complete a clinical/non-clinical evaluation form.</p> <p>(2) Failure to present a research at the Texas A&M College of Medicine Annual Medical Research Colloquium sponsored by the Office of Medical Research Education.</p> <p>(2) Failure to attend and prepare materials to present in meetings with the research mentor(s) and/or course instructors.</p> <p>(3) Failure to submit case report paper by the deadline (2-weeks before the end of this coFurse).</p> <p>(4) Failure to complete course elective evaluation.</p>

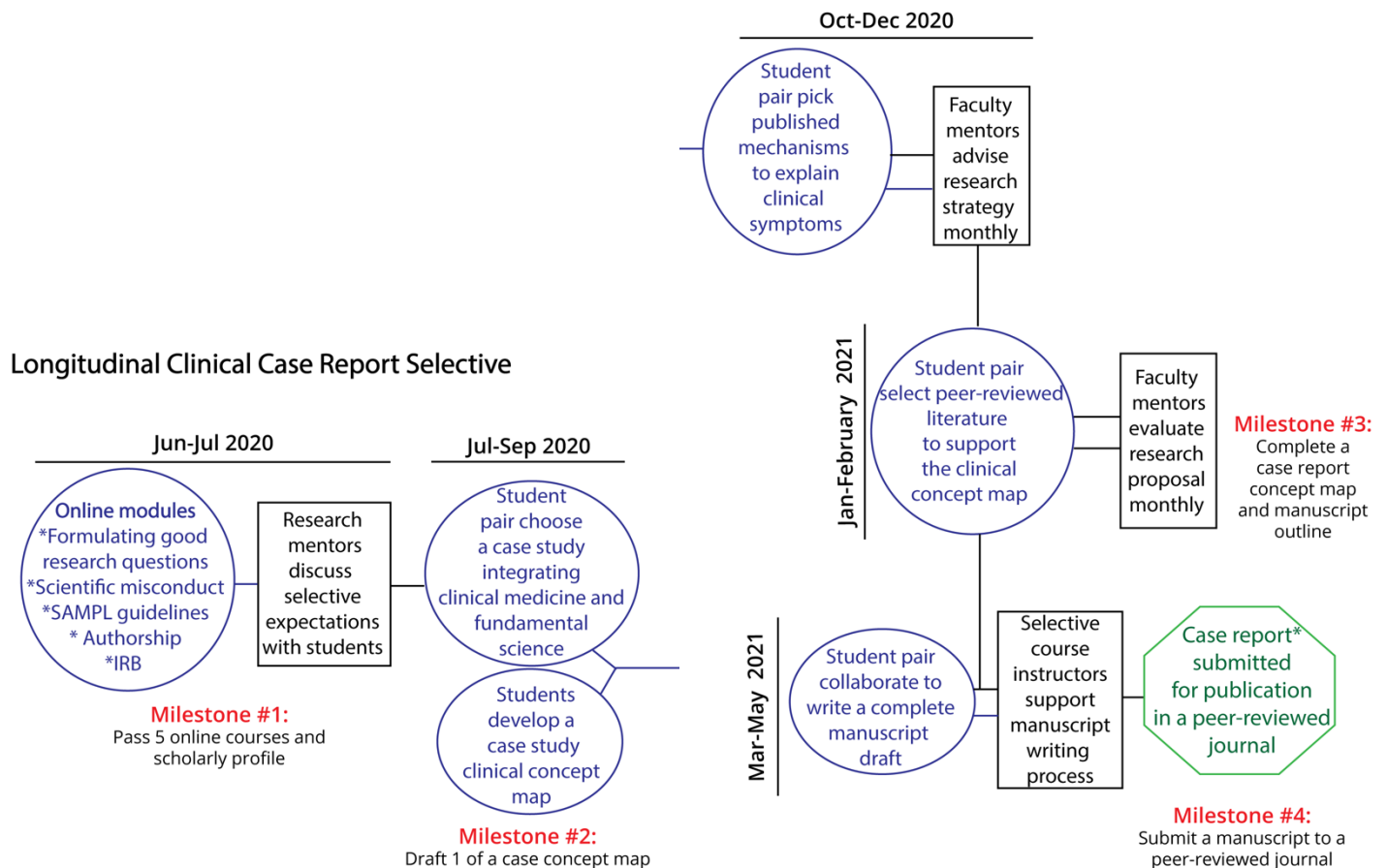


Figure 1: Selective longitudinal scheme with map of milestones and deliverables for AY 2020-2021. A similar timeframe will be used for AY2021-2022 and subsequent years.

Attendance, Make-up Policies, & Remediation

Medical students enrolled in this course will be required to have monthly meetings with their primary research mentor and keep meeting notes and documentation to report with the course coordinators. These meetings may occur by phone, videoconference or in-person. Remediation will be required if student fails the course due to lack of medical or foundational basic science knowledge, professionalism or ethical issues. Failure will result in student retaking the selective. The student handbook can be found here: <http://student-rules.tamu.edu/rule07>. As stated in the TAMHSC – COM student handbook: “Students who miss more than 20% of an elective for any reason (e.g, 2 weekdays during a 2-week rotation or 4 weekdays for 4-week rotation) will require a remediation plan”. Time for unexcused absences may have to be made-up/remediated at the discretion of the elective directors and must be communicated to the course coordinators by email.

Course Topics, Calendar of Activities, Major Assignment Dates

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The deadline for clerkship medical students to apply to this selective is early Summer. Applications will be announced every year by the Office of Medical Student Research Education. The expected learning deliverable for this selective are integration of basic science into treatment plan for a clinical pathology that fails to respond to standard of care. The major milestone assignments and expected timeline for this course are delineated in Figure 1. Monthly meetings will be scheduled for each pair of students with the course directors to assess progress and have an opportunity to get feedback.

Other Pertinent Course Information

A clinical mentor(s) and other content consultants will be identified during the Fall semester in close collaboration with the selective Directors. The Office of Medical Student Research will individually advise students in scholarly research topics upon request. Other resources are available in the Medical Scholar Research Pathway webpage, <https://medicine.tamu.edu/departments/medical-education/msrpp.html>

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit <https://urc.tamu.edu/ada/>. ***Any student with a disability who needs accommodation should inform the instructor at the beginning of the course.***

COM Professionalism and integrity Statement (Academic Honesty and Plagiarism)

All College of Medicine students are required to comply with the student code of conduct and the academic integrity and honesty standards published in each component's Student Handbook. Disciplinary action will be taken in accordance with the policies of each component. Students found guilty of Academic Dishonesty will receive an "F"/Unsatisfactory in the course. For a full list of actions qualifying as academic dishonesty, please review the College of Medicine Student Handbook at <http://medicine.tamhsc.edu/student-affairs/docs/handbook.pdf>.

Academic Integrity

For information regarding academic integrity refer to: <http://aggiehonor.tamu.edu> "***An Aggie does not lie, cheat, or steal, or tolerate those who do.***" According to the Aggie Honor System Office, plagiarism is defined as the appropriation of another person's ideas, processes, results, or words without giving appropriate credit. Intentionally, knowingly, or carelessly presenting the work of another as one's own (i.e., without crediting the author or creator). Plagiarism and other academic misconduct definitions can be viewed on the Aggie Honor System Office website: <http://aggiehonor.tamu.edu/RulesAndProcedures/HonorSystemRules.aspx#definitions>.

E-mail Access and FERPA

The College of Medicine is communicating all official information to students through the students' TAMHSC e-mail accounts. Please check the account frequently during the semester for updates. This course is supported with web-based and/or e-mail activities. In order to take advantage of these additional resources and participate fully in the course, you have been assigned an e-mail address by the Texas A&M Health Science Center. This e-mail address is for internal use only, so that faculty may communicate with you and the entire class. By registering for this course, you are agreeing to allow your classmates to have access to this e-mail address. Should you have any questions, please contact the TAMU's Office of the Registrar at 979-845-1031. The Family Educational Rights and Privacy Act of 1974 (FERPA), which the HSC complies fully, is intended to protect the privacy of education records, to establish the rights of students to inspect and review their education records and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings. Students also have the right to file complaints with the Family Educational Rights and Privacy Act Office of the Department of Education in Washington, D.C., concerning alleged failures by the HSC to comply with the act.

Mistreatment of Students

The College of Medicine is committed to providing a positive learning environment in which students can meet their academic goals based on mutual respect in the teacher/learner relationship. Both parties must be sensitive to the needs of others and differences in gender, race, sexual orientation, religion, age or disability. As outlined in the Student Handbook under the section titled Standards of Conduct in the Teacher-Learner Relationship, belittlement, intimidation and humiliation are unacceptable for effective learning and undermine self-esteem. Breaches involving student mistreatment may result in a faculty or staff member being sanctioned or the loss of faculty and/or staff appointment. These policies address student mistreatment involving College of Medicine employees, residents, affiliate staff, or patients. Mistreatment may be reported through the College of Medicine online form at <https://medicine.tamhsc.edu/about/professionalism/conduct-awareness.html#tab-panel-5>. For a full list of reporting avenues, please refer to the Student Handbook under the Mistreatment Policy.

Exposure and Occupational Hazard

The Needle Stick Policy and Bloodborne Pathogen Exposure information for Medical Students may be accessed in the Student Handbook at: <http://medicine.tamhsc.edu/student-affairs/docs/handbook.pdf>. Medical students engaging in research projects that require research compliance and biosafety courses should complete appropriate trainings before starting this elective. The list of required courses should be determined in consultation with the research mentor. For research with human subjects at Texas A&M University refer to information at: <https://rcb.tamu.edu/humansubjects/approvals>.