Senior Scholars FAQs (AY17-18):

What is Senior Scholars?

The Senior Scholars Program provides an opportunity for scholarly activities that serve not only as an introduction to the philosophy of research based on answering questions through hypothesis generation, information gathering, experimentation, and critical interpretation, but as a tool for growth in an evidence-based health care environment.

Senior Scholars is a Type C research elective for students who want to conduct a research project mentored by a faculty member. Overall, the Senior Scholars Program offers students the following:
- Allows a first-hand view of "scientific principles" and their application in medicine;
- Provides an opportunity for performing high-quality clinical, epidemiology-based, quality improvement, or basic science research;
- Provides a basis for critical interpretation of the medical literature; and
- Assists in career decisions.

Why might a student want to participate in Senior Scholars?

Previous students have provided many reasons to the Senior Scholars Committee and other UMMS medical students why this has been a positive experience for them in which to participate. Among the many testimonials provided by former students are:
- "My research was the #1 topic for all of my residency interviews." "It gives you something to talk about right off the bat."
- "It's very flexible." "It's easy to get involved in research."
- "I learned a lot about data collection." "I learned a lot about publishing a paper." "I learned a lot about research in-depth."
- "It was great to work one-on-one with a mentor and get to know an attending at a different level." "Faculty really enjoy having students to work with on their research."
- "It's a different way of thinking; a different pace of thinking. It's can be stressful, but not the same stress as in the clinical setting."
- "It allowed me an opportunity to exercise other parts of my brain."
- "I was able to understand the different roles of people in research; I more fully understood the role of collaboration."

Are there particular areas of research that a student chooses from in picking a Senior Scholars project?

No. UMMS Senior Scholars have completed projects in all major fields of basic science, clinical medicine, epidemiology, and public health. Recent graduates have completed projects in primary care (Pediatrics, Family Medicine and Internal Medicine), Cardiology, Orthopedics, Emergency Medicine, the Cancer Center, Infectious Disease, Health Policy, Dermatology, Neurology, Medical Education, OB/GYN, Palliative Medicine, Anesthesiology, Surgery, and many more!

Students may also do quality improvement projects, community-based needs assessment, etc. – non-traditional 'research' projects. All projects must be approved by the Senior Scholars Program Director once an application to the program has been submitted (and signed by the student's mentor).

Are there minimum or maximum amounts of time a student must spend to get Senior Scholars credit?

The student must spend a minimum of 2 months on their Senior Scholars project. They can get credit for up to 3 months. Beyond 3 months, the student may apply for independent research elective credits or might apply to do a month-long Scientific Writing elective. The 2 months are typically split between

the traditional UMMS block/months, but students (with approval) may do a 2-week block and a continuous 6-week block or a 3-week block and a continuous 5-week block (other possible alternative available; contact Program Director).

While most Senior Scholars do their project in 4-week blocks, there are some instances where student may request credit for Senior Scholars in 2 differently-sized blocks (e.g., a 2-week block and a 6-week block or a 3-week block and a 5-week block). Each of the blocks must be consecutive weeks. There are no opportunities to divide the 8-week minimum into 3 components of shorter periods of time. Discuss this with the Program Director if an alternative schedule to the tradition month-long blocks are being requested.

Do the months of Senior Scholars have to be back-to-back?

No, the 2-3 months need not be contiguous as long as your have the approval of your mentor. Many projects need the continuity of back-to-back months, but not all do.

Are there any restrictions as to 'when' a student can complete their Senior Scholars months?

Senior Scholars months must be completed by March of the student's graduating year so that April can be used to complete the required Abstract and prepare a scientific poster for presentation at Senior Scholars Poster Presentation Day (in late April or early May of each year).

In addition, unless there are extenuating circumstances, students are not allowed to use both of their Senior Scholars months which are typically reserved for residency interviews (e.g., November/ December or December/January – depending on residency interview schedules of a particular specialty). While there are often many aspects of research that can be done 'off-campus', the Senior Scholars Committee has chosen not to allow both months (if only 2 are being completed) to be during residency interview blocks. If 3 months of Senior Scholars are being conducted, then there are additional options for using residency recruitment months for more than 4 weeks; see Program Director.

Can Senior Scholars projects be done with a mentor outside of UMMS?

Yes, students may work on a Senior Scholars project at another institution as long as it meets the requirements from a research perspective. However, since this is a UMMS internal elective program, students conducting their research outside of UMMS must also identify a UMMS faculty advisor to co-mentor them (though in a secondary role to the primary mentor at the outside institution).

Can Senior Scholars projects be done internationally?

Yes, as noted above, projects may be done at other institutions, including international settings, as long as the minimum number of months are 'research' months in addition to the international travel, medical education, and language immersion experiences that are often tied into reasons why a student might want to go abroad during their clinical years (and obtain credit).

In addition to the time commitment, are there other requirements of the Senior Scholars Program?

Yes, students are expected to write/submit a 1-2 page Abstract summarizing their project by the end of March of their graduating year. Students are also required to present their Senior Scholars project at the Senior Scholars Poster Presentation Day which is held in late April/early May of each year. Both of these requirements are necessary to fulfill the goal that scientific exploration isn't truly complete until you disseminate your findings.

Additionally, with permission from the student and his/her mentor, abstracts and posters are uploaded onto the university's eScholarship@UMMS digital repository. This allows additional dissemination of a summary of the project's findings. Students are provided a link to this site so that they may include it on their resume and/or residency application. To view some of the current listings for Senior Scholars projects on eScholarship@UMMS, go to: http://escholarship.umassmed.edu/ssp/.

Are there requirements to present Senior Scholars findings at a conference or submit an article to a peer-reviewed medical journal once the project is complete?

No, neither of these is formally required, though we encourage all students and their mentors to explore scholarly outputs of a Senior Scholars project. Over the past 10-15 years, nearly one-third of Senior Scholars have presented their findings at a regional/national conference and/or published their work in a peer-reviewed medical journal.

What's the difference between doing a Senior Scholars project and an independent research elective?

The scope of the projects is often not different at all. However, Senior Scholars requires a minimum of 2 months commitment while independent research electives can be just one month in length. Also, independent research electives do not have the requirements of a written Abstract and a formal Poster presentation as do Senior Scholars. Senior Scholars projects tend to be a bit more in-depth than independent research electives, but not always!

Can a student do more than one Senior Scholars projects?

While this is highly unusual, it is possible to do, especially for those students who are extending and completing a 5th year. However, the project must a different one than the first project; i.e., it cannot be an extension of the initial project. The 2nd project can be done in a different department, with a different mentor, etc. – but not extending the work of the initial project. If in the same content area and/or with the same mentor, the project would have to be sufficiently different in order for it to be approved.

What's the difference between doing a Senior Scholars project and my Capstone project? Can my Capstone project 'count' towards Senior Scholars?

There are several ways that Senior Scholars and Capstone differ. Some of the key differences are: 1) students follow a 'scholarly' approach to Capstone, but it does not need to be at the same depth of research as that for Senior Scholars; 2) Capstone projects require longitudinal effort throughout enrollment whereas Senior Scholars are started and completed in 2-3 months in the Advanced Studies (AS) year; and 3) all students plan a Capstone project starting in their first year of UMMS, and only some choose to do a Senior Scholars project (with this choice being made typically sometime between the CCE year through the middle of the AS year).

Importantly, students may choose to convert their Capstone into a Senior Scholars project. All students in the CTRP will do this by design. Other students have the opportunity to expand their Capstone into a Senior Scholars project, as long as the project meets the requirements of Senior Scholars. Another possibility is to end the Capstone and start a new Senior Scholars project. Some students may also choose to complete **both** Capstone and Senior Scholars projects (and receive credit for both of them if they complete their Capstone month in the AS block as well as the 2-month minimum for Senior Scholars) (see details below).

For non-CTRP students, there are 3 ways in which the Capstone and Senior Scholars projects can be related:

1. Students can expand their Capstone into a Senior Scholars project. The Senior Scholars Committee is fairly flexible in helping students transition their Capstone to Senior Scholars. This requires the student to demonstrate, when applying to Senior Scholars, how they are expanding their Capstone to meet the AS requirements of the Senior Scholars Program (students cannot simply take more time to complete their Capstone by saying they want to join Senior Scholars). All students **must** obtain Capstone credit as this is a graduation requirement; however, a student who successfully completes a Senior Scholars project can request that 4 of their Senior Scholars credits be applied to Capstone. It is important to include this in the calculation of AS year elective credits and graduation requirements as credits 'converted' to Capstone from Senior Scholars DO NOT count towards the required number of AS electives.

2. Students may also opt to complete a Senior Scholars project in addition to completing their Capstone project (e.g., if their Capstone project is something different than what they'd like to pursue for Senior Scholars). In this circumstance, students can receive credit for **both** if they complete an AS month for their Capstone <u>and</u> the minimum 2 Senior Scholars months. However they may do both without taking an AS Capstone month in the 4th year as one Senior Scholars month can be applied for credit to cover the Capstone requirement. Students choosing this option should use their PEP form to carefully calculate the number of credits in their AS year to ensure they meet graduation requirements.

3. Finally, students may opt to do a Senior Scholars project and not complete their Capstone project, yet still get Capstone credit as a member of the Senior Scholars Program. However, it is strongly advised that the student discuss this with their Capstone advisor so that he/she is not being left with an unfinished project where there was an expectation by the Advisor that this be completed.

All students must complete the required Capstone reflection, even those who expand their Capstone into Senior Scholars or stop their Capstone and start a (new) Senior Scholars project. The other CSD deliverables (e.g., progress reports and presentation) will be completed up to the point that the student is formally accepted into the Senior Scholars Program.

Where can I find additional information about the Senior Scholars Program and the necessary program application?

Our UMMS web page is: http://www.umassmed.edu/oume/student-resources/research-and-service-opportunities/ume-senior-scholars-program/.The program's application can be found at this site as well as several other links of interest.

Please Note: All students must completed a Senior Scholars application and, once signed by his/her mentor, submit this for approval to the Senior Scholars Program Director. Once that approval is obtained, then the Program Director can sign the elective forms for each month of Senior Scholars that the students is expecting to complete.

Are there individuals I can contact to find out more about the program or to ask questions about whether my project idea(s) might fit the Senior Scholars Program?

Yes, you may contact either of the individuals below:

Program Director: Judy Savageau, MPH
                      Associate Professor
                      Department of Family Medicine and Community Health
                      UMass Medical School
                      774.442.6535 (voice)
                      judith.savageau@umassmed.edu

Program Assistant: Katie Cutler
                      Office of Undergraduate Medical Education
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                      508.856.6065 (voice)
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