This session provides an overview of the process of writing a grant, including pre-writing preparation. The lecture focuses on grant structure from a broad perspective and includes, the abstract, specific aims, narrative, and biosketch. An understanding of the general review criteria is discussed using the NIH F32 as an example.

Residents are asked to write a 30-line (max) abstract of their proposed research and no more than 0.5-page personal statement, both with the assistance of their mentor. This first assignment establishes the mentor-mentee relationship in surgical research that is continued through the remainder of the curriculum. Due: 7/25/19 (2 weeks)

This session covers thinking about and writing research hypothesis that are supported by specific aims. Educational resources from the Northwestern Collaborative Learning and Integrated Mentoring in the Biosciences (CLIMB) are utilized for this session, specifically focusing on the rhetorical pattern of introductions in the Aims pages and analyzing patterns and content.

Residents are asked to write a Specific Aims page that is no more than 1 typed page. Due 8/22/19 (4 weeks)

This session covers the Research Narrative and focuses on Significance, Background (with premise and critical evaluation of the literature), innovation, preliminary data and Aims (including rationale, potential pitfalls and alternative pathways).

Residents are asked to prepare a narrative that is no more than 3 pages in length. Due: 8/29/19 (3 weeks)

This session covers the general approach to preparing an NIH-style biosketch. Specifically, this discussion will focus on the personal statement and contributions to science. Northwestern resources to prepare biosketches will be provided such as the Galter Health Sciences Library & Learning Center.

Optional: residents who would like to apply for ACS grant can create their biosketch for Dr. Wertheim to look over. Due: 8/29/19 (1 week)

This session covers the definition of research which is sufficient for the two-year research opportunity. Time is spent reviewing strategies to identify and contact mentors. An overview of the research section of the Department of Surgery website provides an understanding of the department resources for identifying surgical mentors in research. Broader search engines that span Northwestern and/or outside institutions are identified such as: Northwestern Scholars, Global and Research Opportunities at Northwestern, NIH Reporter. The Department of Surgery Research Dinner is held next month to provide an introduction to begin defining research programs (PGY 2).

This session identifies different modalities for residents to consider that may be useful in funding their surgical research. Reference is made to the resident funding section of the Department of Surgery website. Various foundations (surgical, specialty and other) are identified along with due dates (deadlines) for applications. Research administrators in Department of Surgery are identified as are deadlines for submission to the Office of Scientific Research. The NIH Loan Repayment Program, NRSA F32, and T32 programs are discussed along with the T32 offerings (including directors names) at Northwestern and beyond. This session is designed to cover methods to identify productive mentors and research projects that advance scholarship, the scientific method and principles of academic medicine. Time for questions is provided to help residents identify mentors and projects.

Residents are asked to write a Specific Aims page that is no more than 0.5-page personal statement, both with the assistance of their mentor. This first assignment establishes the mentor-mentee relationship in surgical research that is continued through the remainder of the curriculum.

Residents are asked to write a 30-line (max) abstract of their proposed research and no more than 0.5-page personal statement, both with the assistance of their mentor. This first assignment establishes the mentor-mentee relationship in surgical research that is continued through the remainder of the curriculum.

Residents are asked to prepare a narrative that is no more than 3 pages in length.

Optional: residents who would like to can create their biosketch for Dr. Wertheim to look over.