2023-24 HEALS Course Objectives

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Year One

Basecamp Course Objectives

- 1. Describe the basic structure of the US medical system and explore patients' experiences with the medical system through narrative.
- 2. Define structural racism and identify examples of it within medicine including its sequela.
- 3. Describe and value the role of physicians as patient and professional advocates within society especially for vulnerable patient populations.
- 4. Identify and describe the diverse communities that students will serve as members of the DGSOM and UCLA care teams.
- 5. Describe the role of medical student as an important member of the healthcare team.
- 6. Apply basic teaching skills as students embrace their role as educators for both peers and patients.
- 7. Describe the resources available at the DGSOM, in the greater UCLA and Los Angeles communities and identify areas of potential collaboration.
- 8. Describe the overall curricular structure and goals of a DGSOM education.
- 9. Name and identify ways to embody the values of the DGSOM community and Cultural North Star.
- 10. Describe ways advising networks are critical to personal and professional development. Identify and begin to develop a personalized support and advising network.
- 11. Analyze and apply knowledge gained from self-reflection and personal inventories to draft a personalized vision statement for their medical education including a set of 3-month goals.
- 12. Assess fundamental knowledge and acquire the necessary knowledge, skills, and tools to succeed in Scientific Foundations of Medicine.
- 13. Assess fundamental knowledge and acquire the necessary knowledge, skills, and tools to succeed in Foundations of Practice.
- 14. Acquire the necessary knowledge, skills, and tools to succeed in Early Authentic Clinical Experience.

Foundations of Medical Science Course Objectives Early Authentic Clinical Experience (EACE) Component

- Engage longitudinally as active participants in, as opposed to passive observers of, an
 on-site, in-person clinical and/or community healthcare experience (e.g., direct medical
 care, health advocacy, social services provision, health education, care coordination,
 etc.).
- 2. Add value to their EACE site by contributing to the healthcare-related functions and tasks of their EACE site.
- 3. Identify the roles (e.g., peer support specialists, social workers, case managers, physicians, nurses, nurse practitioners, physician assistants, behavioral health specialists, psychologists, nutritionists, pharmacists, medical assistants, support staff, physical/occupational/speech language therapists, front desk staff, interpreters, etc.)



represented at their EACE site and that comprise their EACE site's interprofessional team, and define the responsibilities (i.e., tasks, duties) generally associated with those roles.

- 4. Rate as important each of the team members at their EACE site and explain and distinguish how each of the team members at their EACE site contributes to addressing the health and healthcare-related issues their EACE site's patients, clients and/or community face.
- Integrate effectively into their EACE site's existing system(s) of providing healthcare, advocacy and/or social services and practice teamwork that is respectful of the experience and expertise of their EACE site's team members, patients, and community.
- 6. Demonstrate interaction skills with patients, clients, caregivers, and interprofessional team members through words, body language and active listening to foster a respectful and collaborative environment and provide, with cultural humility and compassion, care that is nonjudgmental, unbiased, trauma-informed, thoughtful, and attentive.
- 7. Explain how the social and structural determinants of health including but not limited to race, gender, culture, income, education, immigration, neighborhood environment, economic forces, public policies, language, country of origin, sexual orientation, religious affiliation contribute to health and health care inequity among the patients, clients and/or neighborhoods their EACE site serves.
- 8. Look for, identify, and utilize resources to mitigate the effects of the social and structural determinants of health for the patients, clients and/or neighborhoods their EACE site serves.
- Begin to employ a process of reflection (i.e., review, interpretation and understanding of experiences) to guide present and future behavior and to inform emerging professional identity development.

Foundations of Practice (FOP) Component

- 1. Demonstrate a comprehensive, structured, and hypothesis-driven history through a patient interview, reviews of secondary sources, and reviews of medical records.
- Demonstrate an appropriately focused physical examination relevant to the purpose and setting of the patient encounter, integrating patient history, clinical knowledge, and clinical reasoning.
- 3. Demonstrate Provider/Patient Interaction Skills during the History, Physical Examination, and Patient Counseling, through words, body language and active listening, that are caring and compassionate, nonjudgmental, and unbiased, trauma informed, motivational and supportive, therapeutic, and patient-centered.
- 4. Communicate, in oral and written formats, a complete, coherent, non-judgmental, and accurate patient history and assessments with an appropriately prioritized differential diagnosis and care plan based on data gathered.
- 5. Develop a means of educating and counseling patients, families and the public that is evidence-based, humanistic, culturally sensitive, ethical, and jargon-free.

- 6. Apply evidence-based medicine and clinical reasoning to the development of comprehensive patient care plans. Demonstrate use of health information technology in the use of decision-support tools and the use of electronic medical record systems to gather relevant information.
- 7. Practice teamwork that is collaborative, interprofessional, and respectful of the role and value of individual healthcare team members.
- 8. Integrate social and structural determinants of health into the development of comprehensive patient care plans; identify biases and inequities that influence clinical reasoning and potential strategies (e.g. advocacy) to mitigate the impacts of social determinants of health in clinical care.
- 9. Demonstrate the basic operation of POCUS (point of care ultrasound) to perform diagnostic bedside examinations of the neck, heart, major blood vessels, lungs, abdomen, and musculoskeletal system, focusing on normal findings and beginning to recognize abnormal findings on POCUS.
- 10. Describe the principles of humanities and biomedical ethics and the foundational concepts used in ethical medicine practice (what are the different conceptions and theories of health, disease, illness, therapy, disability, autonomy, liberty, harm, justice, vulnerability, and bias in clinical, research, and social advocacy settings).
- 11. Demonstrate professional development with the skills needed to receive and give feedback for growth and improvement (e.g. self-reflection and assessment, self-directed learning, use of the ADAPT model, and adaptability), incorporating learning from coaching sessions and group interaction.

Scientific Foundations of Medicine (SFM) Component

- Apply fundamental concepts and mechanisms from biomedical sciences in the context of medical conditions affecting one or more organ systems through one or more stages of life.
- 2. Identify anatomical and histological structures of the human body that are relevant to the practice of medicine and state their physiological functions.
- 3. Efficiently obtain and critically appraise information related to medical practice from sources that include biomedical literature and databases.

Pre-Clerkship Theme Objectives

Medical Ethics

- Define foundational concepts and principles of medical ethics, including autonomy, confidentiality, justice, surrogate decision making, informed consent, shared decision making, and trust.
- 2. Identify and articulate the ethical dimensions of common clinical and research cases across various subfields.
- 3. Apply and critically analyze foundational ethics concepts in common clinical and research cases using the DGSOM ethics framework.
- Provide and critically evaluate justifications for a moral position and a plan of action for common clinical and research ethics cases using the DGSOM ethics framework.

- 5. Show appreciation for uncertainty, diverse perspectives and values, and pluralism in evaluating ethics cases.
- 6. Demonstrate willingness to talk openly, respectfully, and curiously about ethics with faculty and peers.
- 7. Respond to moral considerations in practice, such as patient values, trust, and structural inequities, through the development of moral courage and practical behaviors in interactions with standardized patients, real patients, faculty, and peers.

Medical & Health Humanities

- 1. Articulate the purpose and value of humanities and narrative medicine methodologies in medical education and clinical practice.
- 2. Employ humanities and narrative medicine methodologies to enhance communication skills and elicit the values, preferences, and points of view of patients, patients' families, and professional colleagues.
- Recognize the diversity of individual experiences of health and illness and seek to understand the manners in which individuals perceive and make meaning of illness experiences.
- 4. Develop skills in critical thinking, perception, interpretation, and navigating ambiguity through the analysis of various art forms.
- 5. Use reflective reading and writing techniques in order to analyze varying perspectives and engage in self-reflection that informs current and future perspectives and practices.

Structural Racism & Health Equity

- Understand the concepts of race/racism, power, colonialism, patriarchy, and capitalism and their manifestations in the history of medical thought, education, practice, and research and shaping the healthcare system overall.
- 2. Understand the impact both structural and social determinants have on the health of marginalized communities.
- 3. Learn about the concept of structural competency and demonstrate proficiency in applying a structural analysis lens to patient care.

Year Two

Intersessions

- 1. Explain the role and expectations of medical students on the core clinical clerkships, as well as the policies, standards, and resources in place at DGSOM to promote student success, development, and wellbeing during the clinical years.
- 2. Demonstrate essential clinical skills and knowledge needed to provide appropriate and effective care on upcoming core clinical clerkships.
- 3. Apply key basic science concepts to the diagnosis and management of common diseases and conditions encountered in clinical medicine.
- 4. Apply fundamental concepts in epidemiology and biostatistics to improve the interpretation of primary literature and inform evidence-based clinical practice.
- 5. Utilize bioethical principles and reasoning to understand and navigate common ethical situations encountered in clinical medicine.
- 6. Employ strategies for effective communication and collaboration within the interprofessional team.
- 7. Discuss the effects of healthcare systems and finance on the practice of medicine.
- 8. Discuss the impact that social determinants of health have on patient access to care and outcomes, as well as develop strategies that can be used to optimize care for individuals facing these challenges.
- 9. Describe systems and employ best practices that support patient safety in the healthcare environment.
- 10. Demonstrate the knowledge and skills required to perform a quality improvement project.
- 11. Apply best practices in research and project management towards scholarly activities during the upcoming DGSOM Discovery Year.
- 12. Utilize critical reflection, feedback, and resilience training to promote identity formation, personal and professional growth, and wellbeing during the clinical years.

Emergency Medicine Clerkship

- 1. Demonstrate the approach to the undifferentiated patient in the Emergency Department (ED).
- Recognize the clinical approach to an unstable patient, including the assessment and monitoring of airway, breathing and circulatory status, the purpose of establishing an IV, O2, and placing them on the monitor.
- 3. Perform focused history and physical examinations for ED patients and specifically for patients presenting with the chief complaints and diagnoses on the clerkship.
- Document pertinent positives and negatives and list possible life-threatening illnesses for ED patients and specifically for patients presenting with the essential chief complaints/diagnoses.
- 5. Engage in effective teamwork in the ED by using closed loop communication with the primary nurse for your patients, communicating effectively with residents, attendings, consultants, and with other ED staff when indicated, and also assisting with procedures, and other needs for your patients or the department.
- 6. Demonstrate an understanding of how the ED functions in the context of the broader healthcare system including pre-hospital care, the function of the ED as the safety net,

- 24/7 care, challenges surrounding the uninsured/underinsured and how social determinants of health impact access and treatment/disposition plans.
- 7. Describe the indications and uses of common ED laboratory studies (i.e. CBC, BMP, coagulation studies, "liver function tests", cardiac enzymes, lactate) and emergent radiographic studies (US, X-ray, CT, MRI) and distinguish between emergent diagnostics and non-emergent diagnostics.
- 8. Describe strategies for managing pain using common oral and parenteral medications in the ED.
- 9. Describe the approach to a patient in cardiac arrest, differences in management of shockable and non-shockable rhythms, demonstrate high quality chest compressions, and how to perform manual defibrillation.
- 10. Describe the clinical approach to a patient in each category of shock (Hypovolemic, cardiogenic, Distributive, Obstructive shock) and list the differential diagnosis.
- 11. State the indications/contraindications/complications of basic procedures in the ED as well as the steps of procedural consent with reinforcement of the ethical underpinnings of medical consent (capacity, autonomy)
- 12. Perform common ED procedures.
- 13. Perform point of care ultrasound (POCUS) for common ED chief complaints/indications.
- 14. Demonstrate an approach to Electrocardiogram (ECG) interpretation by systematically analyzing an ECG and appreciating a "normal ECG."
- 15. Describe strategies for managing pain using common oral and parenteral medications and describe the use of common local analgesics for wound repair.
- 16. Demonstrate ability to navigate the literature to find evidence-based answers to clinical questions.
- 17. Describe a "medical screening exam" and highlight some of the legal requirements, ethical underpinnings, and nuances of some of the vulnerable populations that may require this exam.

Family Medicine Clerkship

- 1. Understand the role of the Family Physician in the health care system, as it pertains to:
 - a. Continuity and comprehensiveness of care.
 - b. Use of appropriate referrals.
 - c. Health promotion and disease prevention.
- 2. Understand the Family Physician's role in the community as a leader
 - a. In addressing health equity.
 - b. In coordinating various health care personnel in patient care.
- 3. Encounter and learn management of common acute and chronic problems seen in an outpatient setting.
- 4. Demonstrate understanding of gender and age specific preventive health measures and apply these skills in patient care when appropriate.
- 5. Demonstrate proficiency in obtaining a focused history, performing an appropriate physical exam, and presenting cases in a complete yet focused manner.
- 6. Assist in common clinic-based procedures.
- 7. Develop strong communication skills to engage patients in shared decision-making and to ensure that care plans align with patient values and preferences.
- 8. Account for structural determinants of health and other barriers to health when

- developing patient-focused management plans.
- 9. Demonstrate cultural sensitivity and the ability to adapt care to meet the diverse cultural and linguistic needs of patients.
- 10. Demonstrate awareness of the larger context and system of health care, including optimally coordinating care for all patients, including those facing barriers in access to care.
- 11. Acquire proficiency in using healthcare technology and electronic health records for documentation, communication, and data analysis.
- 12. Learn the basics of practicing cost effective care and considering the effects of the individual physician on the health care system.

Medicine Clerkship

Patient Care

- 1. Obtain a complete, accurate and relevant history.
- 2. Perform a clinically relevant, appropriately thorough physical exam.
- 3. Develop and prioritize a differential diagnosis for the following chief complaints: Abdominal pain, altered mental status, chest pain, constipation/diarrhea, cough, fatigue, fever, headache, joint pain, lower back pain, shortness of breath, weight concern.
- 4. Direct the physical exam, laboratory, and diagnostic imaging pursuant to the differential and update the differential as information emerges.
- Contribute to the formulation of an evidence-based, cost-effective, patient-centered treatment plan that includes consideration of a wide array of interventions (including medical, surgical, psychosocial).
- 6. Describe how to assess and monitor the response to, tolerance of and adherence to treatment interventions (including symptoms, exam, labs, imaging).
- 7. Identify the aspects of a patient's life that may affect disease presentation and response to treatment.
- Recognize an urgent or emergent situation and know when to seek assistance.

Medical Knowledge

- Describe the approach to diagnosis and treatment of the following patient concerns:
 Abdominal pain, altered mental status, chest pain, constipation/diarrhea, cough,
 fatigue, fever, headache, joint pain, lower back pain, shortness of breath, weight
 concern.
- 2. Relate knowledge of pathophysiology and foundational biomedical sciences to the care of patients with the following common medical conditions: Acute kidney injury/chronic kidney disease, anemia, asthma/chronic obstructive pulmonary disease, cardiac arrythmia, cancer, cirrhosis, coronary artery disease, depression/anxiety, diabetes mellitus, deep venous thrombosis/pulmonary embolism, electrolyte/acid-base disorders, end-of-life issues, gastroesophageal reflux disease, gastrointestinal bleeding, heart failure, hyperlipidemia, hypertension, pneumonia, skin and soft tissue infection, substance use disorder, thyroid disease, urinary tract infection/sexually transmitted infection.
- 3. Integrate health maintenance, individualized risk assessment, preventive health, and age-specific health promotion into treatment plans and patient education.
- 4. Recognize the interplay of structural and social determinants of health in patient

illnesses and integrate the concepts into patient-centered care.

Interpersonal and Communication Skills

- 1. Deliver a clear, concise oral case presentation tailored to the setting and situation (ambulatory, inpatient new and follow-up cases, consultation requests).
- Write accurate, timely, complete notes in the medical record to document key information and a problem-oriented assessment and plan supported by clinical reasoning.
- 3. Identify and address the patient's primary concerns, goals, and emotions.
- 4. Communicate effectively with patients and family members from diverse backgrounds with cultural and structural humility.
- 5. Describe the roles and responsibilities of different members of the interprofessional team (including nurses and nurse assistants, dieticians, laboratory, social work, pharmacists, ward clerk and ancillary staff) and recognize the treating physician's role and responsibility to communicate with these team members.
- 6. Communicate and collaborate effectively with the interprofessional team in a professional and respectful manner.

Professionalism

- 1. Treat patients, colleagues and staff with kindness, compassion, and respect.
- 2. Demonstrate integrity, responsibility, and accountability in patient care.
- 3. Display timeliness, preparation, and active participation in required clerkship activities.
- 4. Apply basic concepts in medical ethics (including confidentiality, informed consent, decision-making capacity, appropriate care) to care of patients.
- 5. Identify and attend to personal emotional responses to patients and patient care.

Practice-Based Learning and Improvement

- 1. Summarize, interpret, and critique scientific literature that is relevant to the care of a patient, and apply the evidence to the treatment plan.
- 2. Demonstrate intellectual curiosity and a spirit of lifelong learning to identify and fill gaps in knowledge and skills.
- 3. Reflect on own strengths and areas for growth. Demonstrate receptiveness to feedback and the ability to integrate feedback to improve performance.
- 4. Contribute to a culture of safety and improvement by identifying system failures and, if experienced, reporting significant near-misses or adverse events.

Systems-Based Practice

- 1. Identify challenges patients face in navigating the healthcare system in order to obtain acute, chronic, and preventive care.
- 2. In the development of patient-centered treatment plans, consider issues such as cost, insurance and funding, resources, barriers to care, and the need to coordinate care.
- 3. Demonstrate a patient-centered mindset and advocate on behalf of patients.

Neurology Clerkship

- 1. Perform a complete neurologic exam.
- 2. Perform an appropriately focused neurologic history and screening exam based on presenting symptoms.
- 3. Localize a lesion based on history and exam findings.
- 4. Generate an appropriate basic differential diagnosis for common neurologic presentations and diagnoses.

- 5. Recognize neurological emergencies and describe initial steps in their evaluation and management.
- 6. State the indications for an LP and describe techniques to perform the procedure appropriately and safely.
- 7. Describe indications for CT and MR imaging of the CNS, emphasizing their use in emergency situations.
- 8. Describe ethical and psychosocial issues encountered in the care of neurologically ill patients.
- Describe differential diagnosis, initial evaluation, and basic management of the 10 chief complaints using experience gained through patient interactions or case-based didactics.

Obstetrics & Gynecology Clerkship

- 1. Develop competence in the medical interview and physical examination of women, and incorporate ethical, social and diversity perspectives to provide culturally competent health care.
- 2. Apply recommended prevention strategies to women throughout the lifespan.
- 3. Describe common problems in obstetrics (see list of common obstetrical conditions).
- 4. Demonstrate knowledge of preconception care, prenatal care, intrapartum care, and postpartum care.
- 5. Describe menstrual cycle physiology, discuss puberty and menopause, and explain normal and abnormal bleeding.
- 6. Demonstrate knowledge of common benign gynecological conditions, contraception, and abortion (see list of common gynecological conditions).
- 7. Formulate a differential diagnosis of the acute and chronic pelvic pain.
- 8. Demonstrate knowledge of perioperative care and familiarity with gynecological procedures.
- 9. Formulate a differential diagnosis of the acute and chronic pelvic pain.
- 10. Describe gynecological malignancies, including risk factors, signs and symptoms and initial evaluation.
- 11. Recognize his/her/their role as a leader and advocate for women.

Pediatrics Clerkship

- 1. Obtain pertinent historical data from a parent and/or child interview enabling you to develop the historical basis for a comprehensive evaluation of clinical problems.
- 2. Skillfully perform a physical examination on any age child, including an assessment of physical growth and psychomotor development, while mastering the skills to clearly and concisely record your findings.
- Critically evaluate and integrate data in seeking solutions to clinical problems (i.e., synthesizing and analyzing the information gathered to develop an approach to the differential diagnosis, and the subsequent formulation of evaluation and management plans).
- 4. Acquire a core fund of knowledge in general pediatrics that may be applied to the evaluation and management of children in both inpatient and outpatient settings.
- 5. Practice both your written and verbal communication skills in multiple settings.

- 6. Address the care of each child with an appreciation of health care systems and the resources available to the patient.
- 7. Assess the impact of psychosocial factors and stresses (for example, family, domestic violence, chronic illness) on the well-being and subsequent evaluation and management of children.
- 8. Gain skills in team-based approach to care in the clinical setting.

Psychiatry Clerkship

Patient Care

- 1. Elicit and accurately document a complete psychiatric history, including the identifying data, chief complaint, history of the present illness, past psychiatric history, medications, general medical history, review of systems, substance use history, social history, and family history of psychiatric illness.
- 2. Conduct a culturally-sensitive interview that builds rapport and trust.
- Develop an effective repertoire of interviewing skills including the ability to discuss sensitive topics and manage behavioral or emotional difficulties encountered in the psychiatric interview.
- 4. Perform a psychiatric diagnostic workup, to include: acquiring and organizing the psychiatric history; performing the mental status and physical exam; making decisions regarding further diagnostic studies.
- 5. Develop a ranked differential diagnosis based on clinical history and presentation based on DSM-5 criteria.
- 6. Provide clear and concise oral presentations and documentation of initial psychiatric evaluations and daily progress of patients being treated for psychiatric disorders.
- 7. Develop and help execute an initial treatment plan and ongoing treatment plans for patients being treated for psychiatric disorders.
- 8. Identify and account for stereotypes, bias and prejudices towards patients from various cultural groups.
- 9. Discuss the mental health care disparities experienced by racial and ethnic groups, sexual and gender diverse groups and the psychosocial factors that contribute to them.

Medical Knowledge

- 1. Describe the major psychiatric diagnoses as defined in DSM-5 and incorporate biopsychosocial formulations, social determinants of health, minority stress, and systemic racism into diagnostic formulations.
- 2. Explain the range of psychiatric interventional therapeutics, specifically: indications for and possible side effects and complications of somatic treatments including psychopharmacologic agents, electroconvulsive therapies and TMS; indications for and general principles of evidence-based psychotherapies.
- 3. Identify LPS criteria for an involuntary psychiatric hold in the state of California.
- 4. Discuss clinical presentations and appropriate treatment of substance use disorders in general medical and psychiatric clinical settings.
- 5. Demonstrate and apply clinical knowledge using self-assessments and standardized NBME shelf exam.

Practice-based Learning and Improvement

1. Discuss the elements of informed consent and describe the elements of decision-making capacity.

- 2. Collect and incorporate cultural information in the assessment and treatment planning of patients.
- 3. Demonstrate scholarship in the form of contributing to a positive learning environment, collaborating with colleagues, incorporating evidence-based literature into treatment plans, and performing self-assessment and self-directed learning.
- 4. Self-assess individual strengths and weaknesses, and actively seek and accept supervision and constructive feedback from residents and faculty.

Systems-Based Practice

- 1. Demonstrate an awareness of the larger context and system of health care and effectively call on system resources to provide optimal care.
- Discuss the roles of different physician specialties and non-physician healthcare disciplines, demonstrate respect for interdisciplinary colleagues, and work collaboratively in the care of patients and their families.
- 3. Discuss the importance of working successfully with patient's families and other agencies in the patient's life (e.g. schools, employers, outpatient providers, etc.) to bring about an optimal clinical outcome.
- 4. Discuss management strategies and propose appropriate community resources as part of a comprehensive treatment plan for each patient including use of psychiatric hospitalization, detoxification and rehabilitative programs, case management, partial hospitalization, intensive outpatient, and residential treatment.

Interpersonal Communication Skills

- 1. Demonstrate integrity, responsibility, and accountability in the care of assigned patients.
- 2. Identify and account for personal emotional responses to patients.
- 3. Demonstrate active listening skills, empathy, responsiveness, and concern regardless of the patient's problems, personal characteristics, or cultural background.
- 4. Demonstrate sensitivity to differences in gender, cultural background, sexual orientation, gender identity, socioeconomic status, level of disability and/or neurodiversity, primary language, educational level, political views, and personality traits.
- 5. Discuss the prevalence and barriers to recognition and treatment of psychiatric illnesses, and recognition of general medical conditions in patients with known psychiatric illness.
- 6. Reflect on personal biases about mental illness and assess individual well-being and strategies to promote self-care and wellness.

Surgery Clerkship

- 1. Recognize the risks and benefits of operative interventions as an approach to disease management.
- 2. Utilize clinical, radiologic, and interventional resources to diagnose surgical problems.
- Construct and communicate a plan for the pre- and post-operative care of patients, with appropriate consideration for both the planned operation and the patient's underlying medical problems.
- 4. Evaluate the interplay among clinical parameters, surgical pathology, and the physiological changes resulting from surgical intervention.
- 5. Articulate the role of surgical specialists in healthcare systems, and identify appropriate opportunities for primary surgical management and surgical consultation.
- 6. Identify systemic disparities in surgical health care delivery among a variety of



- institutional settings (e.g., private, public, academic, primary community, etc.)
- 7. Determine appropriateness of inpatient or outpatient settings for patients with various surgical conditions, analyzing the benefits and limitations of each setting.
- 8. Coordinate and perform daily tasks that contribute to the team-based practice of inpatient surgical care delivery.
- 9. Demonstrate skills in performing supervised simple procedures and basic operative tasks.
- 10. Ensure treatment plans are shared among members of the surgical service, consulting services, nursing staff, patients and families.

Year Three

Discovery Preparation

- 1. Generate a scholarly question in their area of interest.
- 2. Identify behaviors of a successful mentee.
- 3. Prepare a project proposal.
- 4. Create individual goals and objectives for their Discovery Year experience.
- 5. Identify the principles of ethical decision-making and conduct in research and scholarship.
- 6. Identify appropriate methods for scholarly work.
- 7. Demonstrate knowledge of foundational statistical concepts.
- 8. Establish relationships with faculty and peers in their area of interest.

Discovery Course

- Demonstrate ethically responsible conduct of scientific discovery methods.
- 2. Generate a scholarly question.
- 3. Search the literature to answer clinical or scholarly questions.
- 4. Prepare a scholarly research proposal.
- 5. Approach rigorous methods to complete a scholarly project in their area of interest.
- 6. Disseminate their scholarly work through written and oral communication to educate and inform others.
- 7. Participate effectively in mentorship relationships.
- 8. Initiate development of their professional niche.

Discovery Areas of Concentration

Basic, Clinical, and Translational Research

- 1. Understand what makes a good research project (including feasibility, impact, and educational/professional value).
- 2. Know types of research, including clinical, translational, and basic science.
- 3. Acquire relevant conceptual knowledge and technical skills, including generic and subjectspecific skills.
- 4. Explore the range of career options for research-oriented physicians.
- 5. Understand the financing of research.
- 6. Understand and internalize research ethics.
- 7. Engage in a research community, including how to form and work within teams, communication skills, and giving/receiving feedback.

Global Health

- 1. Travel safety and competency.
- 2. Develop new relationships globally and be responsive to the unique needs and culture of partner sites.
- 3. Identify programmatic or research needs related to global health/health equity based on the site-specific context, resources, and community partner priorities.
- 4. Explore and identify structural and social determinants of health that impact health outcomes within one's project, including (but not limited to) the enduring negative effects of colonialism on structural power dynamics, health systems, and health

outcomes.

- 5. Develop skills in one or more methodologies to address a global health question/project.
- Develop skills in data visualization and scientific/professional writing to disseminate project findings.
- 7. Use humility and critical self-reflection of one's positionality.

Social Science and Medical Humanities

- 1. Gain familiarity with the range of social science and medical humanities research areas.
- 2. Gain familiarity with research methods in the social sciences and medical humanities, including goals, methodology, and ethical considerations.
- 3. Acquire skills relevant to the range of research in the social sciences and medical humanities.
- 4. Acquire project-specific skills (with faculty mentor).
- 5. Acquire skills in research project planning, time management, and research communication.
- 6. Explore various ways in which social science/medical humanities research can be incorporated into a career.
- 7. Produce a final research and/or creative project.

Innovation and Entrepreneurship

- 1. Introduce and define the physician innovator archetype / phenotype.
- 2. Illustrate the current trends in medical innovation and entrepreneurship and the disruptive impact of new technology, tools, and processes.
- 3. Cover three pillars of the Biodesign framework in depth: Identify, Invent, Implement.
- 4. Provide an overview of career paths within medicine that engage in innovation and entrepreneurship across clinical medicine, academic research, and industry.
- 5. Engage in experiential learning across the entrepreneurship process from idea to invention.
- 6. Actively work with a multidisciplinary venture team and faculty project mentor.

Health Justice and Advocacy

- 1. Instilling ownership regarding issues students are passionate about.
- 2. Creating understanding regarding existing issues contributing to health disparities and inequity.
- 3. Understanding advocacy on multiple levels and creating social responsibility.
- 4. Addressing needs/barriers on an individual level, including access to transportation, food, housing; addressing barriers to care on an individual level; working with existing resources; and health promotion and preventive medicine.
- 5. Creating change within the institution through developing skills involving learning the structure of the institution and relevant stakeholders, including the hospital organizational chart; educational leadership; existing resources and getting to know individual departments (i.e. case management vs. social work); areas for growth from a resource standpoint; opportunities to benefit patients, providers, and communities from an institutional level.
- Identifying the needs of the community, key community-based stakeholders, establishing relationships with community-based organizations and using relationships with community-based organizations to drive changes.
- 7. Learning about policy, levels of government and where change needs to happen; gain

knowledge about how to interface with different levels of government; skills building on negotiating policy change; using community engagement to help create policy change.

Medical Education and Leadership

- 1. To introduce learners to theories and principles that underlie effective teaching.
- 2. To share information on the development of effective teaching materials.
- 3. To understand different teaching formats.
- 4. To share information on how to create effective formative and summative assessment tools.
- 5. To discuss the importance of providing and receiving constructive feedback to become a better educator.
- 6. To understand the importance of inclusive learning environments.

Bioinformatics and Data Science

- 1. Understand conventional artificial intelligence methods (ML, RL, NLP) and contemporary approaches (e.g., deep learning, generative AI)
- 2. Understand how to evaluate and translate data science methods into practice for research and clinical usage.
- 3. Apply the data science lifecycle.
- 4. Apply data management and sharing standards/best practices, including FAIR and TRUST
- 5. Articulate issues around model reproducibility and transportability.
- 6. Assess and mitigate bias in data-driven algorithms.

Health Delivery Improvement Science

- 1. Lead an impactful health services project.
- 2. Understand the basics of health services research.
- 3. Meet with leaders in health care delivery.
- 4. Learn how to use and analyze data.

Longitudinal Clinical Experience

- 1. Develop skills and qualities required for self-assessment and personal/professional growth.
 - Utilize feedback from multiple sources to self-assess areas/skills for growth.
 - Create SMART goals and action plans for self-improvement.
 - Self-advocate for opportunities and feedback from Preceptor-Coaches.
 - Deliberately practice self-identified skills.
 - Develop longitudinal relationships with patients and with faculty Preceptor-Coaches.
- 2. Improve skill and performance of entrustable activities required to diagnose infirmities and promote health during patient encounters:
 - Gather complete and accurate histories.
 - Perform pertinent physical examinations.
 - Generate, narrow, and prioritize differentials.
 - Conduct focused workups.
 - Present and document findings and assessments.
 - Create plans that utilize best practice and evidence to advance patient care.
 - Improve clinical decision-making in primary and specialty fields.
 - Advocate for patient safety and well-being.

- 3. Engage in career exploration and development:
 - Enhance skills needed for successful patient care in specialty and sub-specialty fields
 - Improve specialty-specific skills needed for sub-internships as identified by expert leaders in each field
 - Experience the rewards and demands of generalist and specialist clinical practice
 - Augment knowledge of sub-specialties to enhance future generalist care
 - Explore the breadth and diversity of professional opportunities in different specialties of interest
 - Self-advocate for career exploration opportunities

Year Four

Foundations for Fourth Year

- 1. Demonstrate appropriate management of core arrhythmias, including the provision of Basic Life Support.
- 2. Perform basic procedures with assistance.
- 3. Recognize patients requiring urgent evaluation and initiate management of patients with common complaints and core diseases.
- 4. Perform a complete patient handoff using an organizational tool.
- 5. Work as a team in the care of critically ill patients.
- 6. Utilize ultrasound to determine fluid-responsiveness in patients with shock.
- 7. Recognize and diagnose common and key EKG abnormalities.
- 8. Recognize and diagnose common and key chest radiographic abnormalities.

Assessment for Internship

- 1. Perform basic procedures in your specialty without assistance.
- 2. Demonstrate proficiency in obtaining informed consent for basic treatments and procedures.
- 3. Recognize patients requiring urgent evaluation and initiate management of patients with common complaints and core diseases based on specialty.
- 4. Perform and receive a complete patient handoff.
- 5. Complete basic admission orders for core diseases based on specialty.
- 6. Work as a team in the care of critically ill patients.
- 7. Communicate effectively with other healthcare professionals in the management of patients.
- 8. Initiate appropriate management of patients over the phone in response to pages.