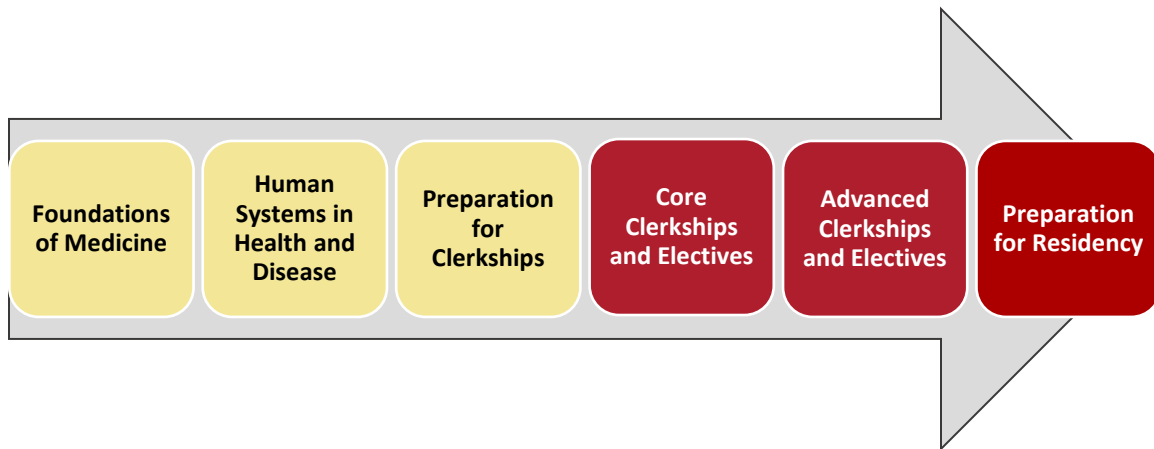


MEDICINE



Human Systems in Health and Disease

BMS 6046C

Neuroscience: CNS and Behavior

Florida State University
College of Medicine



Table of Contents

Table of Contents	2
Faculty and Staff	3
Course directors	3
Faculty	3
Course Support	3
Overview	4
Course Goals	4
Course Objectives mapped to Education Program Objectives (EPO)	4
Course Format	6
Preceptorship (attendance required)	7
PICO Assignment	7
Critical Reading/Critical Analysis of Literature Assignment (aka Journal Club)	7
Interprofessional Collaborative Skills (ICS)	7
Interprofessional Immersion simulation activity (attendance required)	8
Professionalism	8
Content	9
Grading System	10
Description of Student Assessment Methods and Grading	10
Specifications Grading	11
<i>Preclerkship course grading policy – Year 2</i>	13
<i>Pre-clerkship course remediation policy – Year 2:</i>	14
Course Evaluation	14
Policies	15
Americans with Disabilities Act	15
Academic Honor Code	15
Attendance Policy	15
Clinical Learning Center (CLC) Specific Absence Policy	16
CLC scheduled activities	16
Objective Structured Clinical Examination (OSCE)	16
Preceptorship	16
Professional Attire	17
FSU COM Education Program Objectives	18

Faculty and Staff

Course Directors

Gregg Stanwood, PhD
Associate Professor, Biomedical Sciences
Office: G146-B
Phone: 644-2271
Email: gregg.stanwood@med.fsu.edu

Donna Hill, MD
Professor, Clinical Sciences
Office: 3140-J
Phone: 645-9732
Email: donna.hill@med.fsu.edu

Clinical Skills Directors

Ramiz Kseri, MD
Assistant Professor, Clinical Sciences
Office: 3140-H
Phone: 645-2183
Email: ramiz.kseri@med.fsu.edu

Director, Clinical Learning Center and Preceptorship

Debra Danforth, DNP, APRN
Associate Professor, Clinical Sciences
Office: G129-M
Phone: 645-7123
Email: debra.danforth@med.fsu.edu

Director, Interprofessional Education

Niharika Suchak, MD
Associate Professor, Geriatrics
Office: 4311
Phone: 644-2372
Email: niharika.suchak@med.fsu.edu

Faculty

Nighat Ahmed, MD
Jon Appelbaum, MD
Pradeep Bhide, PhD
Joedrecka Brown-Speights, MD
Rob Campbell, MD
José Diaz, MD, PhD
Heather Flynn, PhD
Lisa Granville, MD
Greg Hajcak, PhD
Nancy Hayes, PhD
M. Bryant Howren, PhD

Mel Hartsfield, MD
Donna Hill, MD
Shermeeka Hogans-Mathews, MD
Andrew Kozel, MD
Ramiz Kseri, MD
Gerry Maitland, MD
Mary Norton, MD
Richard Nowakowski, PhD
Kenneth O'Dell, MD
James Olcese, PhD
Steve Quintero, MD

Raed Rizkallah, PhD
Christian Rosado, MD
Javier Rosado, PhD
George Rust, MD/MPH
Stephen Sandroni, MD
Gregg Stanwood, PhD
Niharika Suchak, MD
Mike Sweeney, MD
Scott Taylor, MD
Greg Todd, MD/JD
Robert Watson, MD

Course Support

curriculum.support@med.fsu.edu

Curriculum Coordinators:

Cesar Arango
Office: Suite 2200-N
Phone: 645-2905

Margie Norman
Office: Suite 2200-P
Phone: 645-4645

Jen Brear
Office: Suite 2200-R
Phone: 644-2907

CLC@med.fsu.edu

CLC Program Coordinator

Office: G129-N
Phone: 645-9236

Overview

Course Goals

In **Neuroscience: CNS and Behavior** students acquire a fundamental knowledge of the structure and function of the human central nervous system and behavior in the context of caring for patients. Through active exploration of case-driven problems, students discover how the foundational sciences (neuroscience, behavioral science, and the traditional domains of pharmacology, pathology, and microbiology) explain the signs and symptoms of common neurological and psychiatric problems, the processes of development, learning and memory, and the complexities of human behavior. In a similar way, they learn to perform, assess and report the results of the basic neurological exam through an “evidence-based” approach. Attention is given to integrating concepts and knowledge from all disciplines and domains of the biopsychosocial approach. Students will have the opportunity to study the human brain in 3 dimensions in brain dissection lab sessions. COM mission-based domains are underscored in specific objectives that address important issues in geriatric, rural, minority, and other underserved populations, such as distinguishing between delirium and dementia in elderly patients, increased risks of polypharmacy in geriatrics, and disparities in diagnosis, treatment options, and outcomes. Curricular themes such as cultural issues, ethics, and public health are developed as essential components in clinical encounters with standardized patients and in literature and case studies, for example, cultural attitudes to mental disorders and disparities in neurologic and mental health care based on race and socioeconomic status. Students who complete the **Neuroscience** course will not only understand the anatomy and physiology of the central nervous system in health and disease but will also have a strong appreciation of how the brain determines *what we do, why we do it, and who we are*. Mastery of these concepts will enable students to localize pathology in the central nervous system based on observed signs, to predict the neurological deficits associated with pathology, to predict the consequences of non-biological factors on the structure and function of the nervous system, and evaluate the results of clinical trials. Our goal is to help our learners acquire a mastery of neuroscience concepts that will allow them to perform as exemplary clinicians in any area of practice, long after the course has been completed.

Course Objectives mapped to [Education Program Objectives \(EPO\)](#)

	Course Objectives	EPOs	Means of Assessment
1	Demonstrate effective communication with patients and their families from diverse backgrounds, including culturally and linguistically appropriate interviewing skills, appropriate use of an interpreter, and culturally appropriate verbal and non-verbal behaviors that promote building rapport and trust, and using accurate and appropriate vocabulary and concepts about neurological and psychiatric disorders and diseases, mental health issues, sexuality, and sex and gender identity	2.2, 2.3, 4.1, 5.5	Observation by faculty, preceptor, staff and standardized patients
2	Demonstrate the ability to perform, interpret, and report the results of the neurological exam, including assessment of developmental milestones and behavioral stage across the lifespan, assessment of mental status and ability to distinguish delirium from dementia.	1.2, 1.3, 2.2, 2.3, 2.5, 5.1, 5.5	Observation by faculty, preceptor, staff and standardized patients
3	Describe the basic physical properties and imaging characteristics of ultrasound, and identify opportunities, advantages, and limitations for its point-of-care use related to the central nervous system.	1.1, 1.2, 1.4, 2.3	Observation by faculty in CLC and small groups, SonoSim modules
4	Demonstrate clinical skills and clinical reasoning necessary for diagnosis, evaluation, and management of neurological and psychiatric disorders and diseases and mental health issues, including selection, explanation, and interpretation of appropriate diagnostic imaging and testing, provision of rationales for treatment and management options, and communication of diagnostic information and reasoning, intervention options, and a suggested plan of care with truthfulness, sensitivity and empathy.	1.2, 1.3, 1.4, 1.6, 2.3, 4.6	Observation by faculty and preceptor in CLC and small groups
5	Describe the normal structure and function of the brain and spinal cord in the context of how these structure/function relationships result in observable behaviors across the lifespan, and predict the location,	2.2, 2.4, 2.5	Observation by faculty in small groups; Quizzes and Exams

	appearance on imaging, etiology and disease course of pathologies in the CNS based on clinical signs and symptoms and underlying neuroscience concepts and details.		
6	Identify, describe and distinguish tissue and cell types using photomicrographs and by virtual microscopy	2.2	Quizzes and exams
7	Anticipate the consequences in motor, sensory, and cognitive domains expected to result from injury, disease, central effects of medical and other drugs, and environmental and social conditions that impact the nervous system and health behaviors, based on mechanisms and underlying neuroscience concepts and details, and identify opportunities for mitigation and prevention as well as treatment.	1.9, 2.1, 2.2, 2.3, 2.4, 2.5, 9.1, 9.2	Quizzes and Exams
8	Describe the mechanisms and clinical, cognitive, and behavioral effects of pharmacological and non-pharmacological therapies used in the treatment of pain (e.g. opioids), headache, neurodegenerative disorders, infectious, inflammatory and autoimmune disorders, metabolic disorders, movement disorders, cognitive disorders, disorders of mood, psychotic disorders, substance abuse disorders, seizure disorders, and disorders of sleep, using the principles of high value care.	2.2, 2.3, 2.4, 2.5	Quizzes and Exams
9	Discuss the biological and non-biological (socio-behavioral) factors that contribute to mental illness and mental health across the lifespan, including neurodevelopmental disorders, mood disorders, psychotic disorders, substance abuse and addiction, the disparities in occurrence, recognition and treatment of these disorders, and their impact on individuals, families, society and the health care system	2.1, 2.2, 2.4, 2.5, 9.1, 9.2	Quizzes and Exams; Observation by faculty in small groups
10	Identify psychopathological diagnosis in children, adolescents, young adults, and adults according to DSM V and describe appropriate pharmacologic and non-pharmacologic treatment modalities	2.2, 2.3, 2.4, 2.5	Quizzes and Exams
11	Discuss the disparities in occurrence, recognition and treatment of neurological disorders and diseases across the lifespan based on biologic and non-biologic factors including: sex, gender, age, socioeconomic status, culture, geography, past experience, and lifestyle	2.1, 2.2, 2.3, 2.4, 2.5, 5.5, 9.1, 9.2	Observation by faculty and participation in discussions; Quizzes and Exams
12	Discuss the neuroscience concepts underlying the methods of motivational interviewing and apply behavioral, psychological, social and developmental concepts in the description and analysis of patient behaviors and in patient care	1.5, 1.7, 1.9, 2.5	Observation by faculty in CLC; Exam
13	Demonstrate the ability to recognize when one has reached the limits of their knowledge when applying it to understanding clinical problems.	3.1	Observation by faculty; self-assessment
14	Demonstrate the habits of life-long learning – the identification of personal knowledge gaps and application of strategies to find and interpret information to address those gaps, including the ability to interpret and evaluate the literature on disease mechanisms and emerging therapeutic strategies based on principles of biostatistics, study design, and evidence based medicine	2.4, 3.1, 3.2, 3.3, 3.6	Observation by faculty; participation in case-based learning activities; PICO assignment
15	Demonstrate an understanding of biostatistics and epidemiology concepts and their application in health care, the ability to interpret and appraise the validity of study design and results in the medical literature, and the ability to apply these skills in a systematic approach to clinical problem solving.	2.4, 3.6, 3.7, 3.8	Quizzes and exams; Biostatistics problem set; Critical analysis of literature assignment; PICO assignment
16	Apply the principles and methods of Evidence-Based Medicine to acquire, appraise, and assimilate new clinical information to improve patient care	3.6, 3.7, 3.8	PICO assignment
17	Demonstrate effective communication with peers, faculty and other	4.2, 4.5,	Observation by faculty and

	health professionals, including use of accurate and appropriate vocabulary and concepts related to sexuality, sex and gender identity, neurological, psychiatric and mental health disorders, and the ability to clearly and accurately summarize patient findings in verbal presentations and common written formats.	7.3	Preceptor; SOAP note; Interprofessional Collaborative Skills modules and simulation
18	Identify social determinants of health and discuss their relationship to health and wellness, including for underserved populations	2.4, 2.5, 9.1, 9.2	Quizzes and Exams; participation in small group discussions
19	Engage in self-evaluation and reflection, including related to cultural, moral and ethical issues encountered in the care of patients, to identify biases, to develop self-awareness of knowledge, skill and emotional limitations, to set learning and improvement goals, and to engage in appropriate help-seeking behaviors	3.1, 3.2, 4.7, 5.5, 8.1	Observation by faculty, staff and advisors; participation in small group discussion and case-based learning activities
20	Demonstrate professional values, attitudes and behaviors in all interactions with faculty, staff, peers and patients and in all activities, including: maintaining confidentiality for patients who participate in the course; demonstration of respect, empathy, compassion, responsiveness and concern regardless of the patient's problems or personal characteristics; integrity and adherence to ethical standards including informed consent; and completion of all required activities in a timely fashion	1.7, 5.1, 5.3, 5.4, 5.5, 5.6	Observation by faculty, Preceptor, staff, peers, and standardized patients; ICS assignment; tracking of required activities

Detailed learning objectives are provided for each session in the course.

Course Format

Neuroscience: CNS and Behavior is organized and structured based on our understanding of how the brain learns best, applying paradigms demonstrated to result in better, more efficient learning, and increased retention:

- *Active learning* is essential because – despite what you may think – you learn best from effortful retrieval of information and from your mistakes.
- *Collaborative (group) learning* is essential because that's where you make or recognize your mistakes (and gaps) and receive real time correction in a context that supports retention
- *Spaced learning* is essential because the brain actively forgets things, and synaptic networks tire. Again – despite what you think – you will learn and retain something better by studying it for 10 minutes on 3 separate days instead of 30 minutes at one time.
- *Ownership and accountability* – are pretty self-explanatory.

The course emphasizes engaged and active learning through a variety of individual, interactive large group, and case-based small group learning activities as well as standardized patient encounters in the Clinical Learning Center and a Preceptorship experience in the office of a primary care physician in the community. The purpose of the preceptorship is to provide the student with the opportunity to practice history taking, physical examination skills, clinical reasoning skills, documentation skills and to observe patient care being delivered in a community-based setting. Students will be scheduled to spend a minimum of 3 hours with the preceptor every other week. Weekly formative on-line assessment materials include significant experience with NBME/USMLE-type questions. Students are expected to self-assess their learning needs and set goals to address them with the aid of faculty and their learning groups. **The emphasis is on developing integrated basic and behavioral science concepts in a clinical context.**

Large Group Sessions

Formal lectures are limited in favor of interactive large group sessions. This learner-centered model uses the principles of active learning, where students consolidate their understanding and identify gaps in understanding as a session evolves, by answering questions and solving problems individually and through peer discussion, with immediate input of faculty expertise. Pre-class preparation recommendations prime students for learning with basic didactic material presented through [OnlineMedEd](#) and a variety of additional materials including interactive modules, self-assessment exercises, video and PowerPoint presentations, textbook and journal readings, and structured vertical reading exercises. Advanced preparation and trust in the safe environment we maintain to encourage students to be curious and even to take intellectual risks allows students to be active participants in large group sessions. Clinical Skills activities each week include a 50 minute lecture or large group session before the Clinical Reasoning small group session. One or more relevant journal articles will be analyzed in sessions on critical reading of the literature and evidence-based medicine. Whenever possible, real patients will be presented to share their stories and demonstrate signs of their disease,

associated with sessions that explore the underlying mechanisms of the neurological condition. Whenever patients are present, we ask that students wear their white coats as demonstration of respect for these wonderful patients who are willing to help us learn.

Collaborative Learning (Small Group) Sessions

Small group exercises are case- and/or problem-oriented and focus on discovering **similarities and differences** of presentations or aspects of disease – the basis of differential diagnosis. Small group exercises are designed for **engaged and active learning** and emphasize reasoning, hypothesis formation, and hypothesis testing. For Jigsaw exercises each small group (5-6) of students will master one topic, subtopic, or case and teach that information to others in re-mixed groups. In all small group exercises, **all members of the group share responsibility for analyzing and explaining the clinical presentations**. The value of small group exercises is not always the “answer,” but the **reasoning** behind it. Basic and clinical science faculty will be present to ask helpful questions if your group is “stuck” and to encourage curiosity. During small group exercises, students are free to use any resources (unless otherwise instructed), including high yield point of care informatics resources. **Summarizing and paraphrasing in your own words is a powerful learning tool**, and students are encouraged to summarize the small group learning, and submit the “muddiest points” to faculty for clarification. A post-small group session will provide “take home points” from the small group. Morning small groups will be comprised of 6-7 students, with 1-2 faculty available in each LC. Clinical reasoning (afternoon) small groups will be comprised of 10 students working with the same clinical faculty throughout the course.

Brain dissection laboratory

Whole and half brains and prepared slabs in 3 planes of section will be available for study. The purpose of the lab is to help students develop a 3-dimensional appreciation of the central nervous system and of the “neighbor” relations between structures that are needed to facilitate clinical problem solving. Links to excellent videos from outside sources are provided as a supplement to learn the material outside of lab.

Preceptorship (attendance required)

Approximately every other week each student will spend a half day in the office of a community physician assigned as their Preceptor. Attendance at these sessions and documentation of patient encounters in the Encounter Tracking System (ETS) no later than midnight of the day of each preceptor visit are required.

PICO Assignment

PICO is a format physicians can use for converting clinical scenarios to **researchable** and **answerable** questions to provide evidence-based care of patients. This format can be used to answer questions about treatment, diagnosis, risk factors, etiology, statistics and phenomena.

- **P** = Patient, Population and/or Problem
- **I** = Intervention, treatment, Prognostic factor, and/or Exposure (Which specific are you considering?)
- **C** = Comparison and/or Control (What is the main alternative to the above?)
- **O** = Outcome (What are you trying to accomplish, improve, or effect?)

During the **Neuroscience: CNS and Behavior** course each student will develop a clinically relevant question, framed using the PICO format. Students will independently research the answer to their question, evaluate, and report the results of their search. The completed assignment is to be submitted *via* Canvas **no later than 5:00 pm, Friday, September 9, 2022**. Supporting materials and suggestions about PICO questions and EBM resources for answering these questions are available with the assignment on Canvas.

Critical Reading/Critical Analysis of Literature Assignment (aka Journal Club)

Each course in the fall and spring semesters of the pre-clerkship curriculum includes one or more large or small group sessions related to the interpretation of primary literature. Prior to each of these required sessions, each student reads the assigned paper and completes and submits the guided reading template posted on Canvas. This guided reading template – which reflects the organization of the *New England Journal of Medicine Quick Takes* format – helps develop student skills that are critical for interpreting primary literature necessary for practicing Evidence-based Medicine and for keeping up with important biomedical research. Completion of the template by all students prior to the session assures readiness for meaningful in-class analysis and discussion.

At least once each semester, the Journal Club will take place in small groups. When scheduled as a small group, individual students will be assigned to lead the discussion, and all students will be assessed on their preparation and participation.

Interprofessional Collaborative Skills (ICS)

All ICS assignments, templates, links and submissions are through the [Class of 2025 Interprofessional Collaborative Skills course site on Canvas](#).

Interprofessional immersion simulation activity (attendance required)

On **Friday, October 7, 2022**, all students will participate in an interprofessional simulation activity, working with students from PA, nursing and social work programs from FSU and Pharmacy from FAMU. **These activities will be scheduled from 8 AM to 7 PM, and students are advised to keep this entire day free until the special schedule is published.** In preparation, students will individually complete a set of 6 online interprofessional education modules (**due no later than 5 PM Friday, September 23, 2022**) and will participate in the *Expanding the Team to other professions* on-line collaborative exercises through Canvas discussion boards. Medical students will be assigned to IP Teams (PharmD, PA, Nursing, Social Work) to explore the unique and overlapping knowledge and skills of each and to develop a plan and assign responsibilities for the immersion encounter. The post-event collaborative summary is due **October 10, 2022**. The post-event reflection is due during the Gastrointestinal System course, **October 24, 2022**.

Clinical Learning Sessions (CLC) (attendance required)

Throughout the course learners will continue to develop their clinical skills and clinical reasoning during individual SP encounters in the CLC. These encounters will not be restricted to the neurological exam or problems associated with the nervous system. They will often include reviews of organ systems studied previously, demonstrations of how the central nervous system intersects with other systems, and how behavior both impacts and is impacted by medical conditions.

Professionalism

Medicine is a Profession, which means it entails unique responsibilities and obligations as well as unique privileges. “Professional identity formation” is an objective as important as learning the sounds and anatomy of the heart, but requires a different set of learning skills. Important among those are reflection, self- and peer assessment, deliberate practice, and learning for mastery (not grades).

Two essential Professional behaviors that will become a part of your everyday life are founded on respect for patients:

Confidentiality: Patients — including Standardized Patients — deserve to be treated with respect. Respect for patients includes keeping all patient information confidential. Patient information may be shared with other health care professionals that have a legitimate, professional “need to know,” or with specific family members, friends, or others that have permission from the patient for access to the information.

Be especially conscious about discussions of patients in public places. Even when patient names are not used, the discussion may reveal the patient’s identity to others who overhear the discussion. Rather than risk a violation of patient confidentiality, discuss patients only in a private setting and only with individuals who have a legitimate need to know.

Be careful to keep all patient notes, reports and materials confidential. Patient records, should be returned to faculty, destroyed, or kept in a secure place.

Similarly, your classmates deserve to be treated with respect. Information learned about your classmates and their families while in class is considered confidential. You are not free to disclose this material to others without the specific consent of the person.

Violation of confidentiality may result in a [Report of Concern for Unprofessional Behavior](#) and may be referred to the Student Evaluation and Promotion Committee (SEPC). Egregious unprofessional behavior of any variety may result in suspension of the student, a failing grade for the course, and/or referral to SEPC.

Professional Attire: Medical students, faculty and staff are all ambassadors and representatives of the College of Medicine and of the medical profession. Appearance and behavior should at all times demonstrate respect for the profession and for our patients. The needs of patients must always come first, and any barriers to meeting those needs (including attire, appearance and grooming) must be removed.

Professional attire should be worn in settings where students interact with people from outside the COM, and particularly when interacting with Standardized Patients (SPs) in the CLC, on a “house visit,” or when in a preceptor’s office or clinic, a hospital or nursing facility. Professional attire should also be worn when patients, guests, or visitors are present in large or small group sessions.

Specific standards for professional attire are detailed at the end of this document and can always be found on the course Canvas site (the University Learning Management System).

Content

The course purposefully integrates and further develops content introduced throughout the Year 1 curriculum, including major topics from *Foundations of Medicine 1: Organization and Structure*, *Foundations of Medicine 2: Molecules to Mechanisms*, *Host-Defense*, *Endocrine and Renal-Urinary Systems*, and *Cardiovascular and Pulmonary Systems* while retaining a focus on the central nervous system (CNS) and human behavior. Content clusters in several domains:

What makes the nervous system

- Neurons, glia and neural networks
- Basic neuroanatomy & development
- Injury and repair
- Clinical impact and manifestations of the above

What we do

- Motor systems and central regulation
- Sensory systems and the conversion of sensation to action/behavior
- Basic and higher cognitive function
- Clinical impact and manifestations of the above

Why we do it

- Learning and memory
- Emotion and drive
- Homeostasis
- Consciousness
- Clinical impact and manifestations of the above

Who we are

- Higher cognitive function
- Neurodegenerative disease and dementia, delirium
- Executive function
- Personality and social cognition
- Mood, psychosis, and psychopathology
- Clinical impact and manifestations of the above

Throughout the course, continued development of clinical reasoning and clinical skills focuses on advanced history taking, advanced physical exam maneuvers, and the interpretation of common diagnostic tests relevant to these systems. Standardized patient interactions continue with emphasis on clinical reasoning skills using problem oriented and chronic disease encounters that are not limited to block-specific content.

Required Materials (All required texts are available as ebooks through COM library with exceptions as noted *)

[OnlineMedEd](#) – Individual subscription provided by the COM (login with your COM email address)

[Basic and Clinical Pharmacology](#) (Katzung)

[Bates Guide to Physical Examination and History Taking](#)

[Behavioral Science in Medicine](#) (Fadem)

[Clinical Neuroanatomy](#) (Waxman)

[Diagnostic and Statistical Manual of Mental Disorders: DSM-5](#)

[Histology: A Text and Atlas With Correlated Cell and Molecular Biology](#) (Ross)

[Neuroanatomy, An Atlas of Structures, Sections and Systems](#) (Haines)

[Review of Clinical and Functional Neuroscience](#) (Swenson – *Dartmouth website)

[Robbins and Cotran Pathologic Basis of Disease](#) (Kumar)

[Sherris Medical Microbiology](#) (Ryan)

[Smith's Patient-Centered Interviewing: An Evidence-Based Method](#) (Fortin)

[Understanding Health Policy: A Clinical Approach](#) (Bodenheimer)

Recommended:

Neuroanatomy Through Clinical Cases (not available as an institutional ebook)

[Neuroanatomy Video Lab: Brain Dissections](#) (University of Utah School of Medicine)

[Disorders of the Nervous System: A Primer](#) (Reeves and Swenson – Dartmouth website)

Additional required readings will be assigned from a variety of sources and will be provided through links on Canvas.

1. Other materials required for clinical sessions
 - a. Clinical examination equipment: Each student must purchase and/or have available the following clinical examination equipment: stethoscope with diaphragm, bell and pediatric option, oto/ophthalmoscope, #128 and #512 tuning forks, penlight, reflex hammer, Rosenbaum eye chart and a sphygmomanometer with pediatric, adult, and large adult sized cuffs. Opportunities to purchase this equipment at a discount will be provided prior to orientation. Bring your examination equipment with you to each CLC session.
 - b. Also bring the following to each session in the CLC:
 - A watch capable of measuring seconds
 - A pen for writing (blue or black ink)
 - The student's personal mobile device loaded with the appropriate medical software/applications.
2. Other materials for optional dissection laboratory sessions
 - a. Lab coat or scrubs
 - b. Dissection gloves (provided)
 - c. Eye protection – this can be glasses or safety glasses (required)

Grading System

Assessment Methods

Written assessments

Multiple choice and other question formats are used to assess both content knowledge and application skill (ability to solve problems, demonstration of clinical reasoning, interpretation of images and laboratory results, etc.). Questions may be drawn from material presented in any activity or assignment, from assigned readings and videos, and from CLC sessions.

Students must score a cumulative average of $\geq 70\%$ ([see Grading below](#)) to pass the written assessment component of the course. Students with a written assessment score below 70% risk failing **Neuroscience: CNS and Behavior** and being referred to the Student Evaluation and Promotions Committee. A student who achieves an overall passing score ($\geq 70\%$) but has demonstrated a significant deficit in one or more content areas will be required to develop and complete a Performance Improvement Plan in consultation with the course directors. The purpose of the Plan is to assure the student has the requisite knowledge base to succeed in subsequent courses in the curriculum.

NBME exams

There will be a mid-block exam and a final exam comprised of questions from the NBME (National Board of Medical Examiners) question bank. The questions on the customized NBME exams will be selected by course faculty as appropriate assessment of course learning objectives. **Exams are cumulative across the curriculum**, i.e., main concepts, content and skills from material presented in prior courses may be included in questions. Most written questions are presented in the context of a clinical scenario or problem. The midblock exam contributes 40% and the final exam 60% to the course exam average.

Quizzes

Throughout the course there will be weekly faculty-written quizzes delivered on Canvas. These formative tools are “assessments for learning” that allow students to self-assess mastery of the material and learning needs. **All quizzes are mandatory and must be completed prior to 8 AM on the following Monday without collaboration or consulting resources** (e.g., textbooks, peers, notes, websites, etc.). Quizzes are important opportunities for students to practice the self-assessment and responsibility for their own learning that are part of Professionalism and Practice Based Learning and Improvement. The results of the quizzes will be tracked as a measure of your progress and to help faculty connect students with resources that will help them succeed in the curriculum.

Additional formative assessments may include:

- Pre-class preparation / readiness quizzes
- Post-session quizzes or assignments to assess learning
- End of course practice cumulative test

Clinical skills exams / Objective Structured Clinical Examination (OSCE)

Formative and summative assessment of clinical skills occurs periodically throughout the preclerkship phase. OSCEs are skills-based examinations conducted in the CLC to assess the student's ability to demonstrate clinical skills and behaviors. OSCEs typically consist of several “stations.” Each station will require the student to demonstrate one or more clinical skills/behaviors that will be assessed by a trained observer using established performance criteria for that assessment. The passing score for an OSCE is $\geq 80\%$. Students who do not achieve a score of 80% or higher on the

formative OSCE must develop a plan to remediate these clinical skills. The FOSCE remediation plan must be determined during the first week of the block.

Specifications Grading

The FSU COM has adopted a pass/fail grading system which is used in the curriculum for the first and second years (See [Student Handbook](#)). To achieve a grade of Pass in BMS 6046C (**Neuroscience: CNS and Behavior**) a student a student must earn a **minimum of 209 points as described in the table below**, including a **minimum of 107 points from the assessment category**. The final grade of a student who accumulates 209 total points but has not achieved the minimum required number of points in any non-assessment category will be at the discretion of the course directors following discussion and any required remedial action:

Category	Criteria for points	Points	MINIMUM REQUIRED	MAXIMUM POSSIBLE
ASSESSMENTS (Minimum total points required = 107)				
End of course exam average – includes midblock and final	Overall score of $\geq 75\%$	100 points	90	100
	Overall score 70-74.9%	90 points		
	Score $< 70\%$	0 points		
Weekly quiz (x 8) (All quizzes must be completed – even if late -- to meet requirement)	On time <u>and</u> $\geq 70\%$	3 points each	14	24
	On time <u>and</u> between $\geq 65\%$ but $< 70\%$	2 points each		
	On time <u>and</u> between $\geq 50\%$ and $< 65\%$	1 point each		
	Late (even if 100%)	0 points		
	NOT SUBMITTED or ≥ 24 h late	- 2 points		
SOAP note	Satisfactory submission, including timely revisions as requested	3 points	3	3
TOTAL ASSESSMENT			107	127
NON-ASSESSMENT CATEGORIES (Minimum total points required =102)				
Required small group Jigsaw • Lesion localization 8/25 • Lesion localization 8/31 • CNS infections 9/8	Part 1 assignment submitted on-time	1 point each	12	15
	Evidence of contribution to Part 1 small group assignment	2 points each		
	Participation in Part 2 break out small group	2 points each		
Interprofessional Collaborative Skills				
ICS on-line modules	On-time completion due 9/23 at 5 PM	1 point each	6	6
ICS immersion event 10/7	On-time see special schedule 10/7	1 point	4	5
	Adequate effort	1 point		
	Post event survey	1 point		
ICS post-event collaborative summary	Evidence of participation	1 point		
	On-time submission due 10/10 at 11:59 PM	1 point		
Assignments				
PICO assignment	On-time submission due 9/9 at 5 PM	1 point	1	1
	Adequate effort and resubmission if needed	RUBRIC	17	21
Critical reading templates (x 2)	On time submission Due 9/20 and 10/5 at 11:59 PM	1 point each	4	6
	Evidence of effort	2 points each		
	Adequate effort; resubmission if necessary	2 points		
Professional Identity Formation (Minimum = 58)				
On time arrival, preparedness, and professionalism are expected for ALL required sessions. Includes, but not limited to, all activities at right:	General professionalism: Includes proper attire and behaviors not covered below	-1 point / lapse		
	CLC (x6): On time	1 point each	6	12
	CLC (x6): Evidence of preparation	1 point each	6	
	Discussion rounds (x3): On time	1 point each	3	3
	Small groups (x8): On time	Small groups (x8): On time	1 point each	8
Small groups (x8): Evidence of preparation		1 point each	8	

	Required large groups (x17): On time and present for entire session	1 point each	17	17
	Preceptorship: attendance and logged encounter, no later than midnight of the day of each preceptor visit	2 points each	10*	10*
TOTAL NON-ASSESSMENT			102	112
TOTAL			209	239

*The number of Preceptor visits in Neuro will vary for different students and will be calculated at the end of the course.

For your convenience – here is a table of the due date and time for all **REQUIRED large group sessions**. **MARK YOUR CALENDARS.**

Required LARGE GROUPS	Date	Time
Neuro Exam workshop #1	Thursday, August 18	2-3:50 PM
Patient presentation #1	Friday, August 26	10-10:50 AM
Student Choice #1	Thursday, September 1	10-11:50 AM
Acute stroke	Thursday, September 1	1-1:50 PM
Patient presentation #2	Friday, September 2	10:30-11:20 AM
Patient presentation #3	Wednesday, September 7	10:30-11:20 AM
Neuro Exam workshop #2	Thursday, September 8	1-2:20 PM
Patient presentation #4	Monday, September 12	10:30-11:20 AM
Journal Club #1	Wednesday, September 21	10:30-11:20 AM
Patient presentation #5	Friday, September 23	10:30-11:50 AM
Suicidality panel discussion	Thursday, September 29	1-2:20 PM
Mindfulness workshop	Thursday, September 29	2:30-3:50 PM
Patient presentation #6	Friday, September 30	10-11:20 AM
Sex and Gender workshop	Tuesday, October 4	9-11:20 AM
Student Choice #2	Thursday, October 6	10-11:50 AM
Inpatient and emergency neurology	Tuesday, October 11	9-10:20 AM
Advocate interview	Wednesday, October 12	9-10:20 AM

For your convenience – here is a table of the due date and time for Canvas **assignment submissions** above. **MARK YOUR CALENDARS.**

Assignment	Date due (no later than)	Time due
PICO	Friday, September 9	5:00 PM
Critical reading template #1	Tuesday, September 20	11:59 PM
ICS modules (ICS Canvas site)	Friday, September 23	5:00 PM
ICS post-collaborative submission (ICS Canvas site)	Monday, October 10	11:59 PM
Critical reading template #2	Wednesday, October 5	11:59 PM

1. A final average $\geq 70\%$ on all examination questions. The mid-block assessment contributes 40% and the final assessment 60% to the final average (see below). A grade of Fail or IR will require remediation or repetition of the course, as proposed by the course directors and determined by decision of the Student Evaluation and Promotion Committee.
2. A student whose performance is $<70\%$ (below passing) on any individual exam during the course is required to
 - a. Contact the course directors within 24 hours and
 - b. Meet with the course directors.
3. Any quiz not completed by the Monday 8 AM deadline will earn 0 points. Any quiz submitted >24 hours late will result in a 2 point deduction from the quiz category points.
4. A student who achieves an overall passing score ($\geq 70\%$) but has demonstrated a significant deficit in one or more content areas will be required to develop and complete a Performance Improvement Plan in consultation with the course directors. The purpose of the Plan is to assure the student has the requisite knowledge base to succeed in subsequent courses in the curriculum.
5. Punctuality (on time attendance), professional behavior, and satisfactory preparation and participation are required for all CLC sessions, Discussion Rounds, small groups, patient and panel presentations, Preceptorship, and all other required activities as determined by the course directors and clinical skills director. Failure to meet these expectations may result in a designation of Unsatisfactory Professionalism and failure of the course.
 - A student who does not have a prior excused absence and is unable to attend or will be late for a reason beyond their control, must contact the Clinical Skills Course Director (for afternoon sessions - ramiz.kseri@med.fsu.edu) or Course Director (for morning sessions - gregg.stanwood@med.fsu.edu) as early as possible.

- Unexcused absence from an activity may require remediation as determined by the course directors. Multiple unexcused absences may result in a [Report of Concern for Unprofessional Behavior](#) and referral of the student to the Student Evaluation and Promotions Committee.
 - A repeat lapse in professionalism following a warning will be considered **Unsatisfactory Professionalism**, and will result in a course grade of IR or F (see [grading policy](#) below).
6. Demonstration of the attitudes and behaviors of Medical Professionalism in all aspects of the course, including adherence to the Honor Code when taking unproctored quizzes, adherence to safety protocols and behaviors, and observation of the dress code.. Professionalism concerns may generate a [Report of Concern for Unprofessional Behavior](#) (see [Student Handbook](#)) and may result in receiving a grade of fail in the course.
7. Satisfactory completion of all assignments, including interprofessional education activities, as determined by the course directors.

Preclerkship course grading policy – Year 2

Course written exam score:

All quizzes are mandatory and must be completed without collaboration or consulting resources (e.g., textbooks, peers, notes, websites, etc.). Any quiz not completed within the designated time will receive a score of 0.

- The course **exam average** is comprised of 40% midblock + 60% final.
- Pass = $\geq 70\%$; Written assessment scores are recorded to 1 decimal place and are rounded (i.e., $\geq 69.5\%$ will be rounded to 70%).

Course grade: Pass, Fail, IR – All grades are determined by the course directors

- If the course written assessment score is $\geq 70\%$ **and** all other aspects of the course have been satisfactorily completed as per the Specifications Grading table for the course, a grade of **Pass** will be recorded.
- If the course assessment score is $< 70\%$ **and** all other aspects of the course have been satisfactorily completed, a temporary grade of **IR** will be recorded.
- For an M2 course, a student may be allowed to attempt to remediate the temporary IR grade for no more than 1 course according to the [policy](#) below, if recommended by the course director AND approved by the Student Evaluation and Promotion Committee (SEPC). A passing performance on the remediation exam is $\geq 70.0\%$ (no rounding). The grade will convert to **Pass** or **Fail** based on the remediation exam score.
- If the student has IRs in 2 M2 courses, the student will be referred to the SEPC for consideration of repeating the year or dismissal. If the SEPC recommends repeating the year, the grades will revert to Fail.

In courses that include an OSCE:

- If the OSCE score is $< 80\%$, **and** the course written assessment score is Pass (see above) a temporary grade of **IR** will be recorded and the student may be allowed to remediate the clinical performance as determined by the Clinical Skills Directors.

In courses that include Preceptorship (M1 Spring, M2 Fall)

- If the performance in the Preceptorship is Unsatisfactory (US), as determined by the Director of Pre-clerkship Preceptorships, **and** the course written assessment score is Pass, a temporary grade of **IR** will be recorded and the student may be allowed to remediate the deficit as determined by the Director of Pre-clerkship Preceptorships.

In all cases of Unsatisfactory Professionalism, the recorded grade will be either IR or Fail, depending on the nature of the Professionalism concern – **irrespective of the grade in the other categories**. (Professionalism includes timely completion of all assignments and responsiveness to communication from course directors.)

In any course in which the student's performance merits a grade of IR in 2 or more of the above categories (written assessment score, OSCE, Preceptorship, Professionalism), a grade of Fail may be awarded, and the student will be referred to the SEPC. (see table below)

Written assessment	OSCE	Preceptorship	Professionalism	Course Grade
$\geq 69.5\%$	$\geq 80\%$	S	S	Pass
$\geq 69.5\%$	$< 80\%$	S	S	IR
	$\geq 80\%$	US	S	IR
	$\geq 80\%$	S	US	IR or Fail
	$\geq 80\%$	US	US	IR or Fail
	$< 80\%$	S	US	IR or Fail
	$< 80\%$	US	S	IR or Fail
$< 69.5\%$	$\geq 80\%$	S	S	IR
$< 69.5\%$	$< 80\%$	S	S	IR or Fail
	$\geq 80\%$	US	S	IR or Fail
	$\geq 80\%$	S	US	IR or Fail
	$\geq 80\%$	US	US	Fail

	< 80%	US	US	Fail
--	-------	----	----	------

Pre-clerkship course remediation policy – Year 2:

A student who has completed all the assessments and activities of a course and has not achieved a passing score (see above), will be required to demonstrate competence through an assessment which is consistent with the original course objectives. Remediation activities, including final testing, may involve other students. For an M2 course:

- Students remediate by taking an open-ended, short-answer (essay) format exam developed by the course directors.
- Remediation occurs in the first 2-3 weeks of Step 1 dedicated study block. Course remediation may be integrated with the student's use of UWorld blocks as part of the study plan.
- A student who scores <70% on the remediation assessment or does not adequately engage in the remediation process (as monitored by the course directors) will receive a grade of Fail for the course and be referred to the SEPC.
- If recommended by the course directors and approved by the SEPC, a student who has failed the remediation exam of an M2 course will remediate by retaking the full content of the course during a customized 3 week period and taking another customized NBME exam equivalent to the original course exam in scope and difficulty.

Course Evaluation

Students will have the opportunity to provide constructive feedback through evaluation forms. Evaluations will include both content and facilitation/teaching. Feedback is encouraged at all times on all components of the course and will assist the course directors in providing a timely continuous quality improvement.

Policies

Americans with Disabilities Act

Florida State University (FSU) values diversity and inclusion; we are committed to a climate of mutual respect and full participation. Our goal is to create learning environments that are usable, equitable, inclusive, and welcoming. FSU is committed to providing reasonable accommodations for all persons with disabilities in a manner that is consistent with academic standards of the course while empowering the student to meet integral requirements of the course. Candidates for the M.D. degree must be able to fully and promptly perform the essential functions in each of the following categories: Observation, Communication, Motor, Intellectual, and Behavioral/Social. However, it is recognized that degrees of ability vary widely between individuals. Individuals are encouraged to discuss their disabilities with the College of Medicine's [Director of Student Counseling Services](#) and the FSU Office of Accessibility Services to determine whether they might be eligible to receive accommodations needed in order to train and function effectively as a physician.

[The Office of Student Counseling Services](#)

Medical Science Research Building, 2301

Phone: (850) 645-6475

To receive academic accommodations, a student:

- 1) must register with and provide documentation to the Office of Accessibility Services (OAS);
- 2) must provide a letter from OAS to the instructor indicating the need for accommodation and what type; and
- 3) should communicate with the instructor, as needed, to discuss recommended accommodations. A request for a meeting may be initiated by the student or the instructor.

Please note that instructors are not allowed to provide classroom accommodations to a student until appropriate verification from the Office of Accessibility Services has been provided.

This syllabus and other class materials are available in alternative format upon request. For more information about services available to FSU students with disabilities, contact the:

[Office of Accessibility Services](#)

874 Traditions Way

108 Student Services Building

Florida State University

Tallahassee, FL 32306-4167

Voice: (850) 644-9566 TDD: (850) 644-8504

oas@fsu.edu

<https://dsst.fsu.edu/oas>

Academic Honor Code

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "...be honest and truthful and...[to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at <http://fda.fsu.edu/Academics/Academic-Honor-Policy>)

Attendance Policy

University Attendance Policy:

Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

The College of Medicine has detailed attendance policies as they relate to each cohort and events that conflict with course schedules. See [FSUCOM Student Handbook](#) for details of attendance policy, notice of absences and remediation.

Unexcused absence from a scheduled examination or quiz may result in a score of zero (0 %) being assigned for that assessment. Unexcused absence from an activity for which attendance is required (for example, Small Group session) may be considered as an issue of Professionalism. Any unexcused absence may require completion of the Performance Improvement Plan (see Grading section, above).

Clinical Learning Center (CLC) Specific Absence Policy

CLC scheduled activities

Students with a legitimate reason to miss a scheduled session in the CLC must request an approved absence through the [secure apps link](#) Student Request for Absence from Educational Activities. Students with approved absences will be allowed to reschedule or participate in a make-up session. **Unapproved absences may not be rescheduled or made up.** Repeated unapproved absences may result in a failing grade for the course and a [Report of Concern for Unprofessional Behavior](#).

If you know you will be absent from a scheduled CLC session, please complete the absence approval request at least two weeks in advance. For absences that are approved at least two weeks in advance, a change in CLC schedule assignment will be arranged.

One method for addressing a planned and approved absence is to identify a classmate willing to exchange scheduled sessions with you. In this situation, both students (the student with the approved absence and the willing classmate) should send a request via email to the [CLC Team](#) at least two weeks in advance. Students will be notified re: approval of these requests. Please note: Sending a request is NOT equivalent to receiving approval.

Unplanned but excusable absences from CLC sessions are absences due to circumstances *beyond the student's control*. Examples include student illness and/or family death. When such a situation occurs, please contact the [CLC Team](#) **as soon as possible**, to inform her that you will not be present. Then, submit an absence request through Student Academics. Student Affairs will classify the absence as excused or unexcused.

If the absence qualifies as an “excused” absence, the student must contact the [CLC Team](#) to develop a plan to make up the missed session. These sessions may require the presence of an SP and / or CLC faculty member. Any excused absence will not impact the student's grade.

Unexcused absences generally involve circumstances *within the student's control*. Examples of unexcused absences include the student who forgets about a scheduled CLC session, the student who skips the session to study, and/or any absence where an able student fails to contact Student Affairs and the [CLC Team](#) to inform them that the student will not be present for the session.

If the absence is unexcused, the clinical skills director will discuss the situation with the student. Any further unexcused absences will result in the notification of Student Affairs, a **Report of Concern for Unprofessional Behavior**, and referral of the student to the Student Evaluation and Promotions Committee. Students with unexcused absence(s) will still be responsible for the missed material in future OSCE's and written examinations.

Objective Structured Clinical Examination (OSCE)

If a student knows he/she will not be able to participate in the formative OSCE, he/she should complete and submit the appropriate forms to Student Affairs, and, if within 24 hours of the time he/she is scheduled for the OSCE, contact the [CLC Team](#). If the absence is excused by Student Affairs, the student will receive an “I” (incomplete) grade and be required to complete a make-up OSCE at a designated time after the course has ended.

Any excused absence—whether planned or unplanned—will not impact the student's grade.

Any absence that does not qualify as an excused absence per Student Affairs is an unexcused absence. These generally are due to circumstances within the student's control. Examples of unexcused absences include the student who forgets about an OSCE session, the student who skips an OSCE to study for an exam and/or any absence where an able student fails to follow the procedures above if they are not able to participate in the OSCE. An unexcused absence from the formative OSCE will result in a **Report of Concern for Unprofessional Behavior**.

Preceptorship

Planned preceptorship absences require students to complete the proper forms and obtain the required permissions prior to the absence. **The student must submit a Request for Absence from Educational Activities through [Secure Apps](#), including the date of the rescheduled session. In addition, the student must inform the [Preceptor Team](#) of the session to be missed and the rescheduled date.**

Schedule changes or session remediation for planned preceptorship absences are negotiated in advance. It is the student's responsibility to arrange for a make-up session within one week of the missed session. The student will not incur a grading penalty for an approved absence, providing the session is completed by a schedule change or via remediation session.

Unplanned, but excused, preceptorship absences: In addition to requesting approval of an unplanned absence through [Secure Apps](#), students are expected to contact the [Preceptor Team](#) and the **preceptor** as soon as possible, with the goal of alerting the preceptor in advance that the student will not be coming. This must be completed as soon as possible to avoid impacting successful completion of the preceptorship component of the course.

Impact of excused absence on the student's grade: Absence with a preceptor must be rescheduled as quickly as possible and notification of the rescheduled date completed via the intranet survey. The student will not incur a grading penalty for an excused absence, provided it is rescheduled or remediated.

Unexcused preceptorship absences: In addition to absences not approved by Student Affairs, an absence will be considered to be unexcused if an able student fails to contact the preceptor directly and in advance of the expected time of arrival to inform him/her that the student will not be at the preceptor's site that day.

Impact of unexcused absence on the student's grade: The student may not be allowed to reschedule the missed session and could receive a grade of fail for the course

Professional Attire

Professional attire consists of clothes consistent with community norms for physicians. Length and fit of all attire is to be in accordance with that acceptable for physicians in a professional healthcare environment; oversized, undersized, tight-fitting, seductive, and/or revealing clothing is not acceptable.

Unacceptable attire includes, but is not limited to, the following: jeans of any style or color, denim material or "denim look" material, sheer or see-through fabrics, strapless, low-necked or exposed chest clothing, midriff-baring clothes, backless clothing, spaghetti straps, cut-offs, tank tops, halter tops, crop tops, tube tops, sun dresses, crop pants, shorts, pedal pushers, hip hugger pants, stirrup pants, any item constructed mainly of spandex, sweat suits (sweat pants/sweat shirts), warm-up suits, overalls, hats, and any clothing that advertises.

Examples of professional attire in Tallahassee are: slacks or skirt and a collared shirt or blouse or sweater; conservative length dress (dress or skirt edge should rise no higher than 2" above the top of the knee-cap (patella) during all clinical care and training maneuvers including sit down patient-clinician conversations; dress or skirt should not be tight fitting).

Ties may be either required or forbidden in some clinical situations.

Footwear may include dress or casual closed toe shoes (no sports shoes, no sandals, no open-toe footwear). Heels more than 3" in height are never appropriate in clinical settings.

Consult your supervisor to clarify expectations for student attire in any ambiguous or new situations.

Professional appearance: Long hair must be pulled back and secured. Facial hair must be neatly groomed. If possible, all tattoos should be covered by clothing. No visible body piercing except a single piercing in each ear. No large earrings or loose jewelry. Fingernails must be trimmed. If nail polish is worn, it should not be a distracting color. No strong perfume or other scented products. In compliance with OSHA regulations, closed-toed shoes are required in all clinical settings—including the CLC as well as the anatomy lab.

The established "norms" of certain clinical settings may modify these standards for professional attire, but any variations in professional attire must be approved by the student's supervisor. Consult your supervisor to clarify expectations for student attire in any ambiguous or new situations.

For curricular activities where guests or patients are not present: Unacceptable attire includes, but is not limited to, the following: sheer or see-through fabrics, strapless, low-necked or exposed chest clothing, midriff-baring clothes, backless clothing, spaghetti straps, cut-offs, tank tops, halter tops, crop tops, tube tops, or extremely short shorts.

FSU COM Education Program Objectives

1	PATIENT CARE: Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
1.1	Perform all medical, diagnostic, and surgical procedures considered essential for the area of practice
1.2	Gather essential and accurate information about patients and their conditions through history-taking, physical examination, and the use of laboratory data, imaging and other tests
1.3	Organize and prioritize responsibilities to provide care that is safe, effective, and efficient
1.4	Interpret laboratory data, imaging studies, and other tests required for the area of practice
1.5	Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
1.6	Develop and carry out patient management plans
1.7	Counsel and educate patients and their families to empower them to participate in their care, showing consideration for their perspective throughout treatment
1.8	Provide appropriate referral of patients including ensuring continuity of care throughout transitions between providers or settings, and following up on patient progress and outcomes
1.9	Provide health care services to patients, families, and communities aimed at preventing health problems or maintaining health
1.10	Provide appropriate role modeling
2	KNOWLEDGE FOR PRACTICE: Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care
2.1	Demonstrate an investigatory and analytic approach to clinical situations
2.2	Apply established and emerging bio-physical scientific principles fundamental to health care for patients and populations
2.3	Apply established and emerging principles of clinical sciences to diagnostic and therapeutic decision-making, clinical problem-solving, and other aspects of evidence-based health care
2.4	Apply principles of epidemiological sciences to the identification of health problems, risk factors, treatment strategies, resources, and disease prevention/health promotion efforts for patients and populations
2.5	Apply principles of social-behavioral sciences to provision of patient care, including assessment of the impact of psychosocial-cultural influences on health, disease, care-seeking, care-compliance, barriers to and attitudes toward care
2.6	Contribute to the creation, dissemination, application, and translation of new health care knowledge and practices
3	PRACTICE-BASED LEARNING AND IMPROVEMENT: Demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning
3.1	Identify strengths, deficiencies, and limits in one's knowledge and expertise
3.2	Set learning and improvement goals
3.3	Identify and perform learning activities that address one's gaps in knowledge, skills or attitudes
3.4	Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement
3.5	Incorporate feedback into daily practice
3.6	Locate, appraise, and assimilate evidence from scientific studies related to patients' health problems
3.7	Use information technology to optimize learning
3.8	Participate in the education of patients, families, students, trainees, peers and other health professionals
3.9	Use information technology to obtain and utilize information about individual patients, populations of patients being served or communities from which patients are drawn to improve care
3.10	Continually identify, analyze, and implement new knowledge, guidelines, standards, technologies, products, or services that have been demonstrated to improve outcomes
4	Interpersonal and Communication Skills: Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals
4.1	Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds
4.2	Communicate effectively with colleagues within one's profession or specialty, other health professionals, and health related agencies
4.3	Work effectively with others as a member or leader of a health care team or other professional group
4.4	Act in a consultative role to other health professionals
4.5	Maintain comprehensive, timely, and legible medical records
4.6	Demonstrate sensitivity, honesty, and compassion in difficult conversations, including those about issues

	such as death, end-of-life, adverse events, bad news, disclosure of errors, and other sensitive topics.
4.7	Demonstrate insight and understanding about emotions and human responses to emotions that allow one to develop and manage interpersonal interactions
5	PROFESSIONALISM: Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles
5.1	Demonstrate compassion, integrity, and respect for others
5.2	Demonstrate responsiveness to patient needs that supersedes self-interest
5.3	Demonstrate respect for patient privacy and autonomy
5.4	Demonstrate accountability to patients, society and the profession
5.5	Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation
5.6	Demonstrate a commitment to ethical principles pertaining to provision or withholding of care, confidentiality, informed consent, and business practices, including compliance with relevant laws, policies, and regulations
6	SYSTEMS-BASED PRACTICE: Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care
6.1	Work effectively in various health care delivery settings and systems relevant to their clinical specialty
6.2	Coordinate patient care within the health care system relevant to their clinical specialty
6.3	Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care
6.4	Advocate for quality patient care and optimal patient care systems
6.5	Participate in identifying system errors and implementing potential systems solutions
6.6	Work in interprofessional teams to enhance patient safety and improve patient care quality
7	INTERPROFESSIONAL COLLABORATION: Demonstrate the ability to engage in an interprofessional team in a manner that optimizes safe, effective patient- and population-centered care
7.1	Work in cooperation with other professionals to establish and maintain a climate of respect, dignity, diversity, ethical integrity, and trust in order to enhance team functioning and serve the needs of patients, families, and populations
7.2	Utilize and enhance one's own expertise by understanding and engaging the unique and diverse knowledge, skills, and abilities of other professionals to enhance team performance and maximize the quality of patient care
7.3	Exchange relevant information effectively with patients, families, communities, and other health professionals in a respectful, responsive, and responsible manner, considering varied perspectives and ensuring common understanding of, agreement with, and adherence to care decisions for optimal outcomes
7.4	Participate in and engage other members of interprofessional patient care teams in the establishment, development, leadership, and continuous enhancement of the team in order to provide care that is safe, timely, efficient, effective, and equitable
8	PERSONAL AND PROFESSIONAL DEVELOPMENT: Demonstrate the qualities required to sustain lifelong personal and professional growth
8.1	Develop the ability to use self-awareness of knowledge, skills and emotional limitations to engage in appropriate help-seeking behaviors
8.2	Demonstrate healthy coping mechanisms to respond to stress
8.3	Manage conflict between personal and professional responsibilities
8.4	Practice flexibility and maturity in adjusting to change with the capacity to alter behavior
8.5	Demonstrate trustworthiness that makes colleagues feel secure when one is responsible for the care of patients
8.6	Provide leadership skills that enhance team functioning, the learning environment, and/or the health care delivery system
8.7	Demonstrate self-confidence that puts patients, families, and members of the health care team at ease
8.8	Recognize that ambiguity is part of clinical health care and respond by utilizing appropriate resources in dealing with uncertainty
9	FSU COM MISSION: Demonstrate responsiveness to community needs – especially elder, rural, minority and underserved populations
9.1	Describe the social determinants of health, and identify how they create opportunities for and barriers to wellness for underserved populations.
9.2	Identify community resources and the ways physicians can partner with them to improve individual and population health and address social determinants of health.
9.3	Discuss the process and components of community health assessment.
9.4	Illustrate how community health assessment is used to identify the health needs and issues of a given population and inform decision making to improve population health status.