

# Duke University School of Medicine

## 4<sup>th</sup> Year Electives Book - Doctor of Medicine Program



The early morning sun shines on the Duke University Health System Campus: from left, Duke Clinic, Duke Cancer Center, and Duke Medical Pavilion.

Cover photo credit: Jared Lazarus

*Academic Year 2025-2026*

**56<sup>th</sup> Edition**

**MS4 Courses and Contact Listing**

web: <http://medschool.duke.edu/education/Office-of-the-registrar>

Email: [medreg@dm.duke.edu](mailto:medreg@dm.duke.edu)

Course Information/DukeHub: <https://dukehub.duke.edu/>

phone: 919-684-2304 fax: 919-684-4322

# Fourth Year Calendar

## Summer Term 2025

### March

- 5-11 Wednesday, 8:30 a.m. – Tuesday, 1:00 p.m.  
Registration for rising MS4, summer
- 13 Thursday, 8:30 a.m., Drop/Add begins for summer 43, 44

### April

- 2 Wednesday, 8:30 a.m. Registration for Rising MS4, Fall opens
- 8 Tuesday, 1:00 p.m. registration closes
- 9 Wednesday, 8:30 a.m. – Drop/Add for Fall opens.

### May

- 5 Monday, Begin classes in sections 41, 81
- 26 Monday, Memorial Day – student holiday
- 30 Friday, End classes in section 41

### June

- 2 Monday, Begin classes in section 42
- 6 Fri., 1:00 p.m. – Drop/Add Ends for summer, sections 82, 43, 44 (MS4)
- 19 Thursday, Juneteenth, student holiday
- 27 Friday, End classes in sections 81, 42
- 30 Monday, Begin classes in sections 82, 43

### July

- 4 Friday, Independence Day, student holiday
- 25 Friday, end classes section 43
- 28 Monday, Begin classes in section 44

### August

- 8 Friday, 1:00pm, Drop/Add Fall MS4 sections 41, 42, 81 ends
- 8 Friday, SoM Annual Medical Student Research Symposium – **MANDATORY ATTENDANCE**
- 22 Friday, End classes in sections 82, 44

## Fall Term 2025

### August

- 25 Monday, MS4 Begin section 41, section 81, Capstone

### September

- 1 Monday, Labor Day, student holiday
- 19 Friday, MS4 End section 41
- 22 Monday, MS4 Begin section 42
- 25 Thursday, MS4, **GRADES FOR 41 ARE DUE**
- 26 Friday, Drop/add, fall, Sections 82, 43, 44 (MS4) ends

### October

- 17 Friday, MS4 End section 42, 81
- 20 Monday, MS4 Begin 43, 82
- 29 Wednesday, 8:30am – spring registration opens

### November

- 4 Tuesday, 1:00 p.m. MS3 registration for spring closes.
- 10 Monday., 8:30 a.m. MS4 Drop/Add for spring opens
- 14 Friday, MS4 End section 43
- 17 Monday, MS4 Begin section 44
- 26 Wednesday, noon, Begin Thanksgiving holiday
- 30 Sunday, Thanksgiving holiday ends

### December

- 1 Classes resume, sections 44; 82
- 12 Friday, MS4 End sections 44, 82
- 13 Saturday, Winter Break begins
- 19 Friday, 1:00 pm, MS4 on-line Drop/Add for spring, sections 81, 41 and 42 Ends

## Spring Term 2026

### January

- 1 Thursday, New Year's Day, student holiday
- 5 Monday, MS4 Begin sections 41, 81, 16
- 19 Monday, Martin Luther King, Jr., student holiday
- 30 Friday, End section 41

### February

- 2 Monday, Begin section 42
- 6 Friday, Drop/Add period for spring, sections 82, 43, 44 closes
- 27 Friday, End sections 42 and 81

### March

- 2 Monday, Begin **required CAPSTONE LIVE-MANDATORY ATTENDANCE**
- 2 Monday, Begin sections 43, 82
- 20 Friday, MS4 MATCH DAY
- 27 Required **CAPSTONE LIVE** group session ends
- 27 Friday, End section 43
- 30 Monday, Begin section 44

### April

- 24 Friday, MS4 End sections 44, 82, and 16

### May

- 4 Monday, Noon; **ALL MS4 Grades Due** (to clear students for Graduation)
- 8-10 Friday through Sunday, Graduation Activities

## Fourth Year Academic Calendar Key

### Section Numbers as Course Schedule Designators

Section numbers are used to designate the number of weeks a course is held and the time period during which it is offered within the semester. It should be noted that courses must be taken during the officially scheduled time periods. **Faculty cannot make special arrangements with Duke students to conduct courses outside of the approved Medical School calendar.** For example, a course offered only for sections 81 and 82 cannot be taken by the student during the time period coinciding with sections 42 and 43.

<u>Section</u>	<u>Place Within Term</u>	<u>Section</u>	<u>Place Within Term</u>
16	Entire 16 weeks of term	41	First four weeks
81	First eight weeks	42	Second four weeks
82	Second eight weeks	43	Third four weeks
		44	Fourth four weeks

## Approved School of Medicine Holidays for Medical Students

*(subject to change)*

Labor Day	All	Martin Luther King, Jr. Birthday	All
Thanksgiving Day	All	Memorial Day	All
Christmas Day ( <i>falls during Winter Break</i> )	All	Juneteenth	All
New Year's Day	All	Independence Day	All

### Attendance Requirements for Medical Students when Holidays are observed on days other than the actual holiday

Students in the School of Medicine are to observe approved holidays as outlined on the School of Medicine Academic Calendar. Holidays that occur on a Saturday may officially be observed on the preceding Friday. Official School of Medicine holidays occurring on Sundays will be observed on the following Monday. Second and fourth year medical students that are completing clinical rotations and scheduled for the weekend or evening shifts (or call) prior to the scheduled and approved holiday, must complete their scheduled shift. For example, a holiday observed on the Monday after the actual holiday, a course instructor and/or department may schedule the student to be on the wards until the end of their shift.

# Links to Important Information

**Doctor of Medicine Program:** <https://medschool.duke.edu/education/health-professions-education-programs/doctor-medicine-md-program>

**Doctor of Medicine Policies:** <https://medicine.bulletins.duke.edu/allprograms/dr/md#policies1>

- Policies: Assessment & Evaluation: <https://medicine.bulletins.duke.edu/allprograms/dr/md#policies-assessment-and-evaluation1>
- Policies: Enrollment & Registration: <https://medicine.bulletins.duke.edu/allprograms/dr/md#policies-enrollment-and-registration>
- Policies: Advancement and Promotions: <https://medicine.bulletins.duke.edu/allprograms/dr/md#policies-advancement-and-promotions-in-the-doctor-of-medicine-program>
- Policies: Student Wellness & the Learning Environment: <https://medicine.bulletins.duke.edu/allprograms/dr/md#policies-student-wellness-and-the-learning-environment>

**Academic Calendar:** <https://medschool.duke.edu/sites/default/files/2025-06/2025-2026%20Academic%20Calendar%20with%20MS2%20Course%20Update%20Approved%2006042025.pdf>

**Academic Calendar Key:** <https://medicine.bulletins.duke.edu/allprograms/dr/md#calendar1>

**Bulletin/Electives Book Addendum Items Resource page:** <https://medschool.duke.edu/education/health-professions-education-programs/student-services/office-registrar/student-services>

**Courses Taken at the Durham Veterans Administrative Medical Center:**

<https://medicine.bulletins.duke.edu/allprograms/dr/md#policies-enrollment-and-registration>

**Credit Conformity:** <https://medicine.bulletins.duke.edu/allprograms/dr/md#policies-enrollment-and-registration>

**DukeHub:** <https://dukehub.duke.edu/>

**Financial Information:** <https://medicine.bulletins.duke.edu/allprograms/dr/md#financial-information>

**Financial Aid when Studying Away:** <https://medicine.bulletins.duke.edu/allprograms/dr/md#financial-information>

**Fourth Year Requirements:** <https://medicine.bulletins.duke.edu/allprograms/dr/md#requirements1>

**MD Degree Requirements:** <https://medicine.bulletins.duke.edu/allprograms/dr/md#requirements1>

**Reciprocal Agreements with Neighboring Medical Schools:** <https://medicine.bulletins.duke.edu/som-programs/dr/md#policies>

**Requesting Academic Transcripts:** <https://medicine.bulletins.duke.edu/som-policies/policies>

**School of Medicine Holidays:** <https://medicine.bulletins.duke.edu/allprograms/dr/md#calendar1>

**Study Away Policy:** <https://medicine.bulletins.duke.edu/allprograms/dr/md#policies-enrollment-and-registration>





Duke University Campus Fall Colors

## Fourth Year Curriculum Requirements

### Clinical Science Credit Requirements for the Fourth Year

During the fourth year 28 clinical science credits are required. Students who were eligible to satisfy the Third Year Experience (Continuity, Interdis 305C) during Year 3, but did not, will be required to complete 32 credits in their fourth year. Please refer to the Third Year Experience, (Continuity, INTERDIS 305C) course description under the Fourth Year Course Requirements section. The normal basic science/clinical science sequence may be relaxed only in extraordinary circumstances, if it is in the best academic interests of the student as determined by the advisory dean. Students that matriculated to Duke School of Medicine prior to 2010 must complete at least 32 clinical credits during the fourth year. Students must be enrolled in at least 8 MS4 credits per term during the fourth year.

### Completion of Third Year Requirements for Promotion to the Fourth Year

The student will not be officially promoted to the fourth year until all third year requirements have been met without prior approval of the Promotions Committee, and the student's advisory dean. Additional information can be found at <https://medschool.duke.edu/education/health-professions-education-programs/doctor-medicine-md-program/curriculum/third-year>.

### Fourth Year Course Requirements

Fourth year students that did **NOT** satisfy the Third Year Clinical Experience (Continuity) requirement for Year Three, are required to take an approved 3 or 4 credit outpatient-clinic, chosen from the list below. Students that must successfully complete an approved three or four-week, 3-4 course credit course from the approved list of electives. The credits earned (by exempted students) for these courses will fulfill Interdisciplinary 305C and the 28-course credit requirement for the fourth year at the same time.

If a student was NOT exempt from the third-year Clinical Experience (Continuity) course requirement (INTERDIS 305C) but did not complete it, they are required to complete an approved outpatient course during their fourth year

but must add an additional 3 or 4 course credits to the required 28 course credits. Students will be required to complete a total of 31 fourth-year course credits in order to be cleared for graduation. Fourth year students must be enrolled in a minimum of eight credits per term. (Fourth year students are not eligible to take 200 level second year selective courses).

### Eligible 4-credit courses that satisfy the Clinical Skills Continuity requirement are:

•	ANESTH	446C	Acute & Chronic Pain Management
•	COMMFAM	435C	Health Promotion & Disease Prevention
•	DERMATOL	450C	Clinical Dermatology
•	MEDICINE	415C	Clinical Management of Diabetes
•	MEDICINE	423C	Rheumatology
•	MEDICINE	428C	Metabolism & Endocrinology
•	MEDICINE	431C	Adult Allergy & Clinical Immunology
•	MEDICINE	434C	Outpatient Hematology/Oncology (Duke or VA)
•	MEDICINE	442C	Clinical Arrhythmia (outpatient option)
•	MEDICINE	446C	Nephrology
•	MEDICINE	449C	Geriatric Medicine
•	NEUROSUR	404C	Neuro-Oncology
•	PEDS	402C	Pediatric Gastroenterology (4 cr. only)
•	PEDS	403C	Med/Peds Ambulatory Rotation (4 cr. only)
•	PEDS	413C	Pediatric Pulmonary and Sleep Medicine (4 cr. only)
•	PEDS	421C	Peds Infectious Diseases (4 cr. only)
•	Peds	427C	Pediatric Hematology/Oncology
•	PEDS	429C	Pediatric Rheumatology (4 cr. only)
•	PEDS	430C	Healthy Lifestyles Program: A Clinical Family-Based Approach to Pediatric Obesity
•	PEDS	431C	Clinical Pediatric Cardiology
•	PEDS	433C	Allergy and Clinical Immunology
•	PEDS	436C	Pediatric Neurology
•	PSYCHTRY	443C	Addiction Psychiatry
•	RADONC	415C	Radiation Oncology
•	PSYCHTRY	401C	Sub-Internship in Psychiatry
•	PSYCHTRY	407C	Sub-Internship in Internal Medicine/Psychiatry
•	SURGERY	401C	Advanced Surgical Clerkship
•	SURGERY	403C	Sub-Internship Plastic Surgery Integrated Program
•	SURGERY	441C	Sub-Internship in Surgical Intensive Care
•	UROLOGY	401C	Sub-Internship in Urologic Surgery

**\*MEDICINE 406C** is also approved to satisfy Acute Care Course or Sub-I requirement but not currently offered during 2025-2026

### Fourth Year Non-Clinical Credits for Non-Direct Patient Care

Students are allowed to earn a total of four non-direct patient care course credits that may count toward the 28 required credits for fourth year graduation requirements. These are usually lecture-based or discussion-group based courses that must be approved by the Curriculum Committee prior to the start of the term in which the student enrolls and must be approved School of Medicine course credits. Students may not receive credit

retroactively. These courses include approved courses that are offered in the third year that count toward fourth year credit. Credits for the Capstone Course are not part of this policy.

Additional courses may be added at a later date.

**Fourth Year Courses that are considered Non-Direct Patient Care. (Up to 4 non-direct patient care credits may count toward MS4 graduation credits).**

- ANESTH 445C Physiology & Medicine of Extreme Environments
- COMMFAM 448C *Introduction to Informatics*
- DERMATOL 402C *Dermatology for the Non-Dermatologist*
- IINTERDIS 402C *Introduction to Healthcare Markets and Policy for Practitioners*
- INTERDIS 403C *Narrative Medicine for Medical Learners*
- IINTERDIS 406C *Physician Leadership: From Daily Challenges to Global Crisis*
- INTERDIS 422C *Exploring Medicine: Cross-Cultural Challenges to Medicine in the 21<sup>st</sup> Century*
- MEDICINE 424C *Fluids and Electrolytes*
- MEDICINE 439C *Grief and Bereavement 101*
- MEDICINE 447C *Practitioners and Patients: The History of Clinical Medicine*
- MEDICINE 452C *Clinical Medical Ethics: What Would a Good Physician Do?*
- MEDICINE 453C *Medicine, Humanities and the Arts*
- NEURO 405C *The Neurobiology of Aging*
- OPTHAL 420C *Medical Ophthalmology*





*Duke University School of Medicine – Mary Trent Biddle Semans Building*



# On-line Web Registration and Drop/Add Procedures

- **Online Registration Documentation:** <https://medschool.duke.edu/education/health-professions-education-programs/student-services/office-registrar/student-services> (under "Resources and Instructions")
- **Online Registration Video Tutorial:** <https://duke.mediasite.com/Mediasite/Play/548a110f92404ab78450863eba80869f1d> (under "Resources and Instructions")

**DukeHub:** <https://dukehub.duke.edu/>

*(If you encounter any problems logging in, please contact the OIT Help Desk at 919-684-2200.)*

- Students must complete the required verification process in DukeHub twice per year. Failure to do so will result in the University Registrar placing a registration hold on your student account and you will be blocked from registration. The SoM Registrar's Office cannot remove or override the Hold.

**Verification of Data Help Guide:**

<https://registrar.duke.edu/help-guides/student-verification-data/>

- **Verify that there are no holds on your bursar account.** The Registrar's Office cannot remove holds placed by another office.
- Some courses require a permission number for enrollment. To obtain a permission number, please contact the course director or their designee, as listed in the course description in DukeHub.
- On-line registration and /drop/add dates and times will be posted on the registrar's website and students will be notified via email. The dates are also on the SoM MD program academic calendar.

## Registration/Shopping Cart process:

- Log into DukeHub <https://dukehub.duke.edu/> > enter your Username > enter your password
- Refer to the "addendums" section of the SoM Registrar's Office webpage (under "4<sup>th</sup> Year MD Students") to view course/schedule changes. It is not uncommon for the Registrar's Office to receive changes (or new course approvals) after the publication of the Electives book.

## Dropping Courses in DukeHub:

- Go to the dashboard
- Expand side tool bar (click on the three lines in top right corner, "pancake")
- Navigate to Enrollment Section
- Click View/Drop Courses
- Make sure correct Term is displayed
- Check the box next to each course that you want to drop
- Click drop button
- Confirm selection to be dropped

## Important Notes:

- Several courses are approved as variable credit. Students must select the number of credits/units they plan to enroll in. Otherwise, the system default will be applied.
- **Placing items in your shopping cart does not register you or guarantee a space in a course**
- Courses that have reached maximum enrollment limits are indicated as "closed"
- MED4 Students must enroll in a minimum of 8 credits each term. The exception is summer term, when they are enrolled as a MED3 student in Thesis 301B during the summer term of their third year. They are considered MS3 during summer of first third year.
- Students may not exceed 5 credits per 4-week term and 10 credits per 8-week term.

- Students may not enroll in two courses during the same period of time if there are schedule conflicts. Exception would be two, two-credit courses in a four-week section or similar situation.  
The Med School schedule is broken down in the following sections– four-week consecutive sessions (41, 42, 43, 44); two eight-week consecutive sessions (81, 82); or one 16-week session (16).  
Students must complete the course in the term/section in which they are enrolled. Courses may not be split into multiple terms/sections.
- Acute Care Course and Acute Care Curriculum course **must be taken simultaneously** unless student is in the PCLT track or prior approval is obtained from the Acute Care Curriculum course director.
- Courses can only be taken for the number of credits as approved by the Curriculum Committee
- Students considered MS4 during the summer term (returning from LOA, dual degree, CRS/ORS status) must enroll in at least 8 credits and must enroll in Academic Enrichment for the terms they are not enrolled in during the summer. This is not necessary for fall and spring due to Capstone enrollment.
- The School of Medicine does not use waitlists
- Students that plan to take an additional year of research (CRS or OPTRS) must complete the required ORS or CRS forms. Upon approval of the completed and approved forms, the SoM Registrar's Office will enroll the student in the appropriate term status.
- Failure to register by the specified deadline will have tuition and financial aid ramifications, i.e.,- no initial registration = no tuition bill = no financial aid = no refund. A professionalism form may be submitted for students that fail to meet the registration deadline.
- Please refer to the Study Away policy for information about the process for Study Away approval and enrollment. An approved Study Away Application is required in order for the SoM Registrar's Office to process your enrollment and for students to receive credit for the away rotation.  
The application must be approved PRIOR to the start of the rotation that is away from Duke.

*Do not hesitate to contact [medreg@dm.duke.edu](mailto:medreg@dm.duke.edu) or 919-684-2304, if you have any questions.*

**IMPORTANT:** Requests to Change Schedule after the Online Registration and Drop/Add Periods Close

Students that wish to make schedule changes after the online registration and drop/add periods close must complete the appropriate electronic Drop/Add form. A link to the electronic form can be found on the SoM Registrar's website, <https://medschool.duke.edu/education/health-professions-education-programs/student-services/office-registrar/student-services>.

**Schedule changes should not be made during the two-week period prior to the start of the classes.**

## Calendar for On-line Registration and Drop/Add Periods

The following dates have been assigned for registration and drop/add periods for the 2025-2026 academic year. Schedule changes after the online registration or Drop/Add periods must be done via an electronic Drop/Add request form. The dates below are subject to change.

### ***Summer 2025***

**On-line Registration:** March 5<sup>th</sup> – March 11<sup>th</sup>, 2025

First Day of Classes: May 5, 2025

Late Registration/Drop/Add: Changes to sections 81/41/42 require completion of electronic Drop/Add request form.

On-line Drop/Add period for sections 82, 43, and 44: *March 13<sup>th</sup> – June 5<sup>th</sup>, 2025.*

### ***Fall 2025***

**On-line Registration:** April 2<sup>nd</sup> – *April 8<sup>th</sup>, 2025*

First Day of Classes: August 25, 2025

Late Registration/Drop/Add: Sections 81/41/42, April 9<sup>th</sup> – August 8<sup>th</sup>, 2025.

On-line Drop/Add period for sections 82, 43, and 44: April 9<sup>th</sup> – September 26<sup>th</sup>, 2025.

### ***Spring 2026***

**On-line Registration:** October 29<sup>th</sup> – November 4<sup>th</sup>, 2025

First Day of Classes: January 5, 2026

Late Registration/Drop/Add: Sections 81, 41, 42: November 10<sup>th</sup> – December 19<sup>th</sup>, 2025

On-line Drop/Add period, sections 82, 43, and 44: November 10<sup>th</sup> – February 6<sup>th</sup>, 2026.



Duke University Chapel on a snowy, winter day



# GENERAL INFORMATION

## Transcripts of Academic Record

**Note:** Transcripts are processed daily. If you need a transcript reflecting final grades, please submit your request after you verified all of your final grades have been posted in your DukeHub account. If you need a transcript reflecting your posted degree, you need to wait until after the semester has ended and the graduation ceremony is complete to submit the request. You should be able to view your Academic Record in DukeHub and confirm if the degree has been awarded.

Duke University has authorized Parchment, Inc. to provide transcript ordering.

This site clearly guides you through the ordering process, including delivery options and fees. Multiple transcripts may be ordered in a single session by adding them to the cart. Order updates will be emailed and you can check your order status or history online. Transcripts will not be processed if an account is flagged for outstanding financial obligations to the University. FedEx charges can be paid via MasterCard, Discover, or Visa. The card will only be charged after the order has been completed.

<https://registrar.duke.edu/student-records-resources/transcripts-and-verifications>

**Current Students:** Current students must use the Parchment ordering system to order Transcripts via DukeHub. Those students who have graduated in the past Year should also use DukeHub to order transcripts.

**Duke Alumni and Former Students:** Order transcripts via a Parchment account.

Refer to the SoM Registrar's website for more information about delivery options, transcript fees, etc.

**Transcript Requests for ERAS:** Transcript requests for transcripts that need to be uploaded to ERAS must be requested online via DukeHub (Parchment link). Students should request that the transcript be sent electronically via a secure email, to [medOSA@duke.edu](mailto:medOSA@duke.edu). The transcripts will be uploaded to ERAS by a member of the SoM Student Affairs staff.

**ERAS Tokens:** Students must contact the Duke SoM Office of Student Affairs Office, [medOSA@duke.edu](mailto:medOSA@duke.edu) to obtain an ERAS Token.

Refer to the website above for more information about delivery options, transcript fees, etc.

# Elective Courses of Instruction

## Departments

*(note: Course director names are listed first in the list of faculty in the course descriptions)*

Anesthesiology  
Community & Family Medicine  
Dermatology  
Emergency Medicine  
Free Time  
Interdisciplinary  
Medicine  
Neurology  
Neurosurgery  
Obstetrics and Gynecology  
Ophthalmology  
Orthopaedics  
Otolaryngology  
Pathology  
Pediatrics  
Psychiatry  
Radiation Oncology  
Radiology  
Study Away  
Surgery  
Urology

Schedule of Courses listings for 2025-2026 are after the course descriptions

Summer Schedule, 2025  
Fall Schedule, 2026  
Spring Schedule, 2026

## Anesthesiology

### Sub-Internships

**ANESTH-401C. Cardiothoracic Intensive Care Sub-Internship.** The cardiothoracic intensive care sub-internship will allow fourth year medical students to be exposed to and participate in the care of the post-operative and critically ill cardiac and thoracic surgery patients. This patient population has the highest rate of invasive monitoring, echocardiographic and hemodynamic assessment, and advanced circulatory support including utilization of inotropes, vasopressors, and mechanical circulatory support devices (ECMO, LVAD, RVAD, IABP). A working knowledge of these concepts will be critical to a future career in

Anesthesiology, Critical Care Medicine, or Surgery. This sub-internship level course will allow students to participate in patient care 6 days a week. This will be an in-depth experience in cardiac critical care medicine. Students will be evaluated on their knowledge, skills, and ability to facilitate patient care in this environment. Students will be expected to take a high degree of ownership of their patients, communication between the critical care, surgery, and anesthesia teams will be emphasized. This sub-internship course will not fulfill acute care curriculum requirement. For more information, contact Course Director Dr. Michael Cutrone: michael.cutrone@duke.edu; Dr. Bryan Chow bryan.chow@duke.edu. Credit: 5. Maximum combined enrollment for Anesth 401C and Anesth 402C cannot exceed a total of more than 4 students in any 4-week section. Enrollment: Max-2 Min-1. *Michael Cutrone, MD ; Bryan Chow, MD*

**ANESTH-441C. Subinternship in SICU.** Students engaging in the Surgical Intensive Care Unit (SICU) sub-internship will gain hands-on experience and broad-based knowledge in managing critically ill surgical and trauma patients. Students will take ownership of a panel of patients under the supervision of Anesthesia and Trauma/Surgical Critical Care attendings and housestaff and actively participate in daily rounds as part of the SICU team. Didactics will include multiple weekly scheduled and informal lectures. Students take one week of four on night call and work on a one-on-one basis with SICU house staff in the supervised management of critically ill patients. Time may be spent in the SICU at Duke University Medical Center (trauma, vascular surgery, liver-kidney-pancreas transplantation, general surgery) and/or the SICU at the Durham VA Medical Center (cardiothoracic and vascular surgery, general surgery). Instruction on the rotation will include particular emphasis on procedures and techniques necessary for Critical Care, including hemodynamic assessment and monitoring, cardiovascular resuscitation and use of vasoactive drugs, ventilator management such as ARDS, prevention and management of nosocomial infections, and ethical decision making in the ICU. Students are formally evaluated by the SICU house staff and the attending physician. C-L: SURGERY 441C. Credit: 5. Enrollment: max 2. *Course Director: J. Taylor Herbert, MD/PhD (james.herbert@duke.edu: Faculty: Adjoa Boateng Evans, MD; Amy R Alger, MD; Sandy An, MD, PhD; Ioana Antonescu, MD; Yuriy Bronshteyn, MD; Kelli Brooks, MD; Michelle Brownstein, MD; Adjoa Boateng Evans, MD; Desiree Coutinho, MD; Joe Fernandez-Moure, MD; Patrick Georgoff, MD; Daniel Gilstrap, MD; Zac Ginsberg, MD, MPP; Krista Haines, DO; Nazish Hashmi, MBBS; Vijay Krishnamoorthy, MD; Russell-John Krom, MD, PhD; John Lemm, MD; Nitin Mehdiratta, MD; Sean Montgomery, MD; Virginia Parker, MD; Jamie Privratsky, MD, PhD; Omar Al-Qudsi, MD; Karthik Raghunathan, MD; Vanessa Schroder, MD; Mara Serbanescu, MD; Miriam Treggiari, MD, PhD; Cory Vatsaas, MD; Paul Wischmeyer, MD*

## Clinical Science Electives

**ANESTH-402C. Cardiothoracic Intensive Care Elective.** The cardiothoracic intensive care elective will allow fourth year medical students to be exposed to and participate in the care of the post-operative and critically ill cardiac and thoracic surgery patient. This patient population has the highest rate of invasive monitoring, echocardiographic and hemodynamic assessment, and advanced circulatory support including utilization of inotropes, vasopressors, and mechanical circulatory support devices (ECMO, LVAD, RVAD, IABP). A working knowledge of these concepts will be critical to a future career in Anesthesiology, Critical Care Medicine, or Surgery. This elective level course will allow students to participate in patient care 5 days a week. This will be an in-depth experience in cardiac critical care medicine. Students will be evaluated on their knowledge, skills, and ability to facilitate patient care in this environment. This elective will fulfill acute care curriculum requirement. For more information, contact Course Director Dr. Michael



Cutrone: michael.cutrone@duke.edu; Dr. Bryan Chow bryan.chow@duke.edu. Credit: 4. Maximum combined enrollment for Anesth 401C and Anesth 402C cannot exceed a total of more than 4 students in any 4-week section. Enrollment: Max-2; Min-1. *Michael Cutrone, MD; Bryan Chow, MD*

**ANESTH-430C. Diving and Hyperbaric Medicine.** Students participate actively in assigned patient care and clinical projects. Clinical work provides intensive exposure to the physiology and medicine of extreme environments such as hyperbaric and hypobaric conditions. Students will work directly with the weekly service attending, fellows, interns/residents, nursing and technical staff, providing experience in team-based, multidisciplinary, patient-centered clinical care. Students will have desk and computer space in the Hyperbaric Center team workspace to foster education and collaboration. Consultative services are provided on an inpatient, outpatient and emergency basis from many different services including medicine, surgery, oncology and emergency medicine. Students will learn about the specific indications for hyperbaric oxygen therapy for clinical care, and in developing translational projects. Students are guided in producing concrete clinical presentations and reports related to the field. For more information, please contact Dr. Derrick (bruce.derrick@duke.edu). Secondary contact: Tonya Manning (tonya.manning@duke.edu) 684-6726. Students should plan to meet for rounds on the first day of the rotation promptly at 7:30 a.m. Location: Hyperbaric Center Library, 0588 White Zone, Basement, CR II Building. Credit: 4. Enrollment Max 2. *Bruce Derrick, MD, and staff*

**ANESTH-440C. Clinical Anesthesiology.** The student will participate in the pre-, intra-, and post-operative anesthetic management of patients while assigned to an individual resident or attending anesthesiologist. The student will spend time in the general operating rooms, the cardio-thoracic operating rooms, and in various subspecialty areas including labor and delivery, pediatric operating rooms, neurosurgical operating rooms, regional anesthesiology service, and acute pain management. Learning opportunities will include pre-operative patient evaluation, anesthetic technique selection, airway management, pharmacology, physiology, and anatomy. The student will complete various procedures such as airway management, vascular access, ultrasound, and patient monitoring. These areas will be reinforced by problem-based learning discussions, Grand Rounds, and other conferences. In the summer and fall, priority in registration is given to students considering careers in Anesthesiology. Students MUST attend the first day of the section, and are strongly advised not to miss any of the first week. More than 4 absences are not permitted. Schedules for the class will be emailed out prior to the start of the course. (Not offered during summer section 42). Enrollment Max: 4. Credit: 4. *Abigail Melnick, MD (abigail.melnick@duke.edu); Grace McCarthy, MD, and Staff*

**ANESTH-445C. Physiology & Medicine of Extreme Environments.** Advanced topics in the physiology and medicine of: altered ambient pressure, immersion, gravity, temperature, breathing gas composition. Environments considered include: diving and hyperbaric medicine; exercise physiology; hot/cold terrestrial and water operations; microgravity and high-g acceleration; high altitude; space. Basic mechanisms and medical management of associated diseases are examined including: decompression sickness, altitude sickness, hypothermia and hyperthermia, hypoxia, carbon dioxide and carbon monoxide poisoning, oxygen toxicity. Practical applications: pressure vessel design and operation, life support equipment, cardiorespiratory physiology measurements at low and high pressure, optional simulated chamber dive and/or flight (optional). Optional supplemental reading: Human Physiology in Extreme Environments by Hanns-Christian Gunga and The Biology of Human Survival Life and Death in Extreme

Environments by Claude A Piantadosi. Prerequisites: Human anatomy and physiology. Attendance, either on-line via zoom or in person is MANDATORY unless otherwise approved by the course director in order to receive credit. Excused absences need to be made up by viewing the recorded lecture and completion of quiz. Examinations are open notes / open book quiz for each module. The course will meet weekly on Thursday evenings from 5:00pm until 7:30pm beginning in January for 8 weeks. Most lectures will be via Zoom. Practical experience/simulated dive at the Hyperbaric Center Library (room 0584), located in the Duke South, Basement Level, White Zone. Permission required for enrollment. For more information, contact Dr. Bruce Derrick, email [bruce.derrick@duke.edu](mailto:bruce.derrick@duke.edu). Secondary contact: Tonya Manning, email [tonya.manning@duke.edu](mailto:tonya.manning@duke.edu). Credit: 1, Non-Direct Patient Care credit. Enrollment: max 20, min. 10. *Bruce Derrick, MD, and Richard Moon, MD*

**ANESTH-446C. Acute and Chronic Pain Management.** Students will participate in both inpatient and outpatient pain management. Each student is assigned daily to an individual fellow or attending physician who supervises the student's active involvement. This involvement emphasizes a multidisciplinary approach appropriate for the individual patient. Topics reviewed include pharmacotherapy including opioid management, interventional procedures such as epidural and peripheral nerve catheter placement, nerve blocks, neurolytic procedures, as well as implantable devices. The benefits of physical and psychological therapy are stressed. Students will observe and/or participate in various interventional procedures. In addition to this clinical work, students attend weekly pain conference and grand rounds. The course is offered each elective period throughout the year. More than two absences must be made up, and if more than five absences are anticipated, the elective should be re-scheduled. Students with questions may contact Dr. Lance Roy ([lance.roy@duke.edu](mailto:lance.roy@duke.edu)) or Luanne Latta ([luanne.latta@duke.edu](mailto:luanne.latta@duke.edu)). Please contact Ms. Latta the week before the rotation for information about where to arrive on the first day. If your rotation assignment is at the Durham VA Medical Center, you will need to complete the required VA paperwork at least 30 days prior to the start of the rotation. For questions about the VA paperwork, please contact Erik Sandstrom, ([erik.sandstrom@va.gov](mailto:erik.sandstrom@va.gov)). Credit: 4. Enrollment: max 2, min 1. *Lance Roy, MD and Arun Ganesh, MD*

## Community and Family Medicine

### Sub-Internship

**COMMFAM-401C. Sub-Internship in Family Medicine.** Sub internship in Family Medicine. This course provides senior medical students with an intense patient and population-oriented clinical rotation with responsibilities and autonomy similar to that of an intern. This clerkship will provide a unique opportunity to participate in the department's effort to test new models of care in the delivery of team-based chronic disease management in the ambulatory and community setting. Students will see patients supervised by senior faculty at Duke Family Medicine Center and have an opportunity to see patients with the Duke family medicine residents in clinic and the long-term care setting. Each clerk will participate in a PDSA project in conjunction with the Population Health team. At least 50% of the rotation will be direct clinical care in the Duke Family Medicine Center. Students also have the opportunity to rotate on the Family Medicine Inpatient Service and Maternal and Child Health Service. These opportunities will allow students to work with the Duke family medicine residents to see patients in the inpatient setting. The remaining will occur with the Population Health Resident, independent projects, home visits, or long-term care facility. Clinical instruction and supervision on each patient encounter are provided by senior level house staff and faculty members of the Department of Community and Family Medicine. Students are advised to contact the department as early as possible for course approval (at least eight weeks in advance). No drops are permitted within 60 days of the first day of the rotation. Priority will be given to students with an interest in a career in primary care. For more information, please contact the Coordinator of Medical Student Programs, Gretchen Oakley (gretchen.oakley@duke.edu), or 919-681-3066. Permission is required. Credit: 5. Enrollment: max 2 per session. *Emma Par, MD; and Nancy Weigle, MD*

### Clinical Science Electives

**COMMFAM-410C. Travel Medicine at Duke Student Health.** Health education, immunizations, and medications pertinent to the traveler compose a distinct area of medical knowledge that has not otherwise been addressed in the curriculum. The medical student taking this course will review the major infectious illnesses of concern for each travel area. They will be responsible for the medical knowledge base and patient education needs about the mode of transmission and typical presentation of these illnesses, available behavioral intervention prevention methods, available vaccine prevention, options of chemical prophylaxis, and treatment if prevention is not successful. Students that took this course as a 2-week selective cannot take this course as a two-week, fourth year elective. Permission is required. Enrollment max: 1. Credit: 2. Contact: The Coordinator of Medical Student Programs at 919-681-3066 for permission. Please Note: 8:00am will be the start time unless otherwise instructed by Dr. Trost and you will need to meet at the Student Health Center, 305 Towerview Drive. *Melanie Trost, MD*

**COMMFAM-423C. Occupational and Environmental Medicine.** This elective is designed to enhance the student's skills in several important areas related to occupational medicine: occupational injury and illness prevention, epidemiology, health management for employee populations including COVID response for employee exposures, industrial toxicology, worksite wellness, and prevention programs. During this four-week rotation, students will complete readings related to these areas, observe



surveillance exams and prospective health planning visits, participate in lectures and seminars, learn to conduct computerized database searches concerning industrial toxicology, and (as available) visit industrial sites. Students will also complete at least one project involving one of the topics above. Upon completion of the rotation, students can expect to have practical and useful skills applicable to occupational medicine and work site health programs. Credit: 4. Two-months advance notice and permission from instructor is required. Permission is required for enrollment. Enrollment: max 1 student per month. All interested students should contact Gretchen Oakley, Coordinator of Medical Student Programs, at 681-3066. *Satish Subramaniam, MD and Carol Epling MD*

**COMMFAM-433C. Community Health.** This elective introduces students to the concepts and practice of community-engaged population health improvement, with the aim of improving knowledge and skills to design, implement and/evaluation these types of initiatives. Community-engaged population-based health care is becoming increasingly important in addressing the health needs of the United States. This elective will help students understand how Duke Health serves communities through collaborative, innovative, interdisciplinary clinical services, educational programs, advocacy initiatives and applied research. By allowing students to participate in actual community/population health improvement initiatives that address diverse social drivers or health, role modeling and experiential learning are used to supplement and apply what is learned in the required text-based materials of the course. Because the specific course activities depend upon the student's particular interests and the community health initiatives ongoing at the time of the elective, each student's course activities and health improvement project will be individually designed. Participation in this course requires instructor permission. Students must contact Dr. Anh Tran, Program Director, at least six weeks prior to the start of the course via email at anh.tran@duke.edu. At that time, Dr. Tran and the student, along with community programming faculty and staff, will plan the specific activities that will be undertaken by that student, and establish the requirements for the student's successful completion of the course. For more specific information about the course, students may contact Adriana Green (adriana.green@duke.edu), Training Coordinator in the Division of Community Health, at 919-681-7007. Details on course meeting location, days and time will be communicated prior to the first day of class. Credit: 4; Enrollment max: 2. *Anh Tran, PhD, MPH*

**COMMFAM-435C. Health Promotion and Disease Prevention.** This elective is an intensive clinical experience in health promotion and disease prevention. Students see patients in the Duke Family Medicine Center, Duke Affiliated Programs, and Duke Community Health Programs. They will participate in a variety of activities designed to help them provide excellent health maintenance care. Specific content areas addressed include risk assessment, counseling skills in nutrition, safe sex practices, and smoking and alcohol cessation, as well as screening tests and immunizations. Students will be introduced to the practical implementation of preventative care in the clinical and community setting. Prerequisite: Successful completion of Family Medicine Clerkship (COMMFAM 205C). All interested students should contact the Coordinator of Medical Student Programs, Gretchen Oakley, at 919-681-3066. Permission is required. Credit: 4. Enrollment: max 1 per session. 2nd student accepted when clinic space allows. *Emma Par, MD and Nancy Weigle, MD*

**COMMFAM-448C. Introduction to Informatics.** This elective provides students with an opportunity to explore the integration of medicine and information technologies in an experiential manner by working on an ongoing or self-initiated medical IT project. In doing so, students will gain an understanding of the

field of clinical informatics and the role it plays in the national effort to improve quality of care and eliminate medical errors. Additionally, topics students will explore include: Electronic medical systems (e.g. EHR, PHR, CPOE, CDS); Role of health IT in patient safety; Health information standardization (e.g. HL7 FHIR); Databases; Social Determinants of Health; Use of AI in Healthcare; Data Elements; and Terminologies. For more information about the course, students should contact the Duke Center for Health Informatics, Dr. Ed Hammond via email at [william.hammond@duke.edu](mailto:william.hammond@duke.edu), or by phone, 919-668-0189. Offered during spring section 42 only. Permission is required for enrollment. Credit: 4, Non-Direct Patient Care credit. Enrollment: max: 8. *Ed Hammond, PhD*

## Dermatology

### Clinical Science Electives

**DERMATOL-401C. Dermatology Inpatient Consults.** Dermatology Inpatient Consults offers an option for fourth year students who are interested in a brief introduction to dermatology. Students will participate in the evaluation and management of hospitalized patients and will have the opportunity to work directly with the dermatology chief resident and consult attending. Please note students are given a 4-week period to complete the clinical requirements for this is a 2-credit course. Students select 10 weekdays to round with the consult team. This course is ideally taken as a 2-week block, but non-consecutive days within the 4-week course are permissible. Students will be contacted prior to the start date. However, please reach out to Daren Simkin, [daren.simkin@duke.edu](mailto:daren.simkin@duke.edu), Secondary contact: Jessica Braddock, ([jessica.braddock@duke.edu](mailto:jessica.braddock@duke.edu)). Credit: 2. Enrollment: max 1. *Daren Simkin, MD; Sabrina Shearer, MD; Sarah Myers, MD*

**DERMATOL-402C. Dermatology for the Non-Dermatologist.** This course focuses on common dermatologic conditions that every graduating medical student should be able to recognize. Through a series of asynchronous lectures, interactive modules, and virtual lectures, students will gain confidence in identifying and managing common skin conditions. If you have questions, please reach out to Dr. Daren Simkin ([daren.simkin@duke.edu](mailto:daren.simkin@duke.edu)) or to Jessica Braddock, ([jessica.braddock@duke.edu](mailto:jessica.braddock@duke.edu)), Duke Dermatology Education Coordinator. Maximum Enrollment: 5. Credit: 1 non-direct patient care. Offered during spring 81 only. Virtual Orientation at 6PM on first Monday. Enrolled students will be emailed a link for orientation. *Daren Simkin, MD; Lawrence Etter, MD, and Michelle Pavlis, MD*

**DERMATOL-450C. Clinical Dermatology.** The elective in clinical dermatology is designed to prepare students to perform an accurate skin examination, formulate a differential diagnosis, and choose appropriate therapeutic interventions. This course is valuable to any student interested in improving their ability and confidence in the cutaneous exam. Students spend approximately two weeks working in the outpatient dermatology clinics, one week on the inpatient consult service at Duke, and one week at the Durham VA Medical Center. The outpatient clinical experience includes general dermatology clinics as well as a variety of specialty clinics such as pediatric dermatology, transplant dermatology, and procedural dermatology. Patient care is supplemented with modules designed to provide the student with a foundation in dermatologic principles, and students are encouraged to attend weekly departmental teaching conferences. Student evaluations are based on the development of clinical skills as assessed by faculty and residents. NOTE Duke students enrolled in DERMATOL 450C MUST HAVE VA COMPUTER ACCESS. Students are responsible for contacting Erik Sandstrom at [erik.sandstrom@va.gov](mailto:erik.sandstrom@va.gov) no less than 60 days from the first day of the section in which they are enrolled. Dr. Daren Simkin is the course director and may be reached at [daren.simkin@duke.edu](mailto:daren.simkin@duke.edu). Secondary contact: Jessica Braddock, ([jessica.braddock@duke.edu](mailto:jessica.braddock@duke.edu)). Permission of the instructor is required for all summer sections and fall 41. Credit: 4. Enrollment: max. 3, except where otherwise indicated. Sole Enrollment. Students may not enroll in any other daytime courses while enrolled in this course. *Daren Simkin, MD; Erin Lesesky MD, Sabrina Shearer MD, Megan Jamison MD, Rabina Walsh, MD as well as other faculty*

## Emergency Medicine

### Sub-Internship

**EMERGMED-401C. Emergency Medicine Subinternship.** This sub-internship is designed for students with a career interest in emergency medicine. Students will hone their approach to the emergency medical patient, including essential diagnostic and therapeutic measures. The experience will encourage the development of skills important to the practice of emergency medicine including differential diagnosis, managing multiple patients, communicating with consultants, and making appropriate dispositions. Efforts are made to coordinate the majority of a student's shifts with a core group of faculty to provide mentorship. Students will attend weekly medical student lectures, Thursday morning resident conferences, and deliver a final case presentation. For more information, please contact Dr. Erin Leiman via email, [erin.leiman@duke.edu](mailto:erin.leiman@duke.edu). Secondary Contact: Erin Browning ([erin.browning@duke.edu](mailto:erin.browning@duke.edu)). Prerequisites: Students must have already completed a prior emergency medicine rotation. Permission of the instructor is required for summer for all offered summer and fall sections. Please try to contact the course director at least several weeks in advance of enrollment to help guarantee availability. Prior to the first session, there will be a virtual orientation. Credit: 5. max: variable. Offered in summer 43,44 and in fall 41 only. *Erin Leiman, MD*

### Clinical Science Electives

**EMERGMED-405C. Emergency Medicine.** The American College of Emergency Physicians defines emergency medicine as 'the medical specialty with the principal mission of evaluating, managing, treating and preventing unexpected illness and injury.' Course Goals: 1) Students will see patients with the full range of chief complaints that present to the Duke Hospital Emergency Department. 2) Students will gain experience in making initial evaluations as well as diagnostic and treatment plans with an emphasis on detecting and treating immediate life-threatening conditions. 3) Students' ability to rapidly obtain critical facets of a history and physical examination will improve. 4) Students will mature as clinical problem-solvers by seeing several patients per day with undifferentiated chief complaints. How Goals Are Achieved: 1) Students will work with attendings and residents during approximately 13 eight-hour shifts per month. A mixture of day, evening, and overnight shifts will be assigned that include both weekdays and weekends. 2) When available, medical student lectures will be held each week. 3) Students will attend resident conferences on Thursday mornings, 8am to 1pm. Methods of Evaluation: Attendings and residents will give feedback to students verbally and through shift evaluation cards. For more information, please contact Dr. Erin Leiman by email, [erin.leiman@duke.edu](mailto:erin.leiman@duke.edu). Secondary Contact: Erin Browning ([erin.browning@duke.edu](mailto:erin.browning@duke.edu)). Prerequisites: Permission of the instructor is required for summer sections 43/44 and fall 41. Prior to the first session, there will be a virtual orientation. Credit: 4. Enrollment: max varies by term. *Erin Leiman, MD*

**EMERGMED-407C. Direct Observation and IPE Student Clinic Leadership Elective I.** Senior students provide leadership to the direct observation and IPE student clinic. Students will help define goals for the clinic, barriers to achieving these goals, and solutions to these barriers. Main roles will include leading the clinical team (responsibility for direct clinical operations, such as opening the clinic each night, selection



of clinic patients, teaching and providing feedback to other learners in clinic) and engaging in quality improvement that impacts the learners (i.e. developing formal teaching modules/videos/simulations) and that impacts patients (patient access to health care, patient flow, patient satisfaction, patient outcomes and or learner). This elective will give students a direct role in shaping a clinic for patient care. Students will gain insight into important aspects of systems-based practice: from laws governing care to patients with possible emergent/urgent medical conditions, to health care finance and reform, and healthcare reimbursement. The elective will run through the entire semester and the clinic sessions are not expected to be consecutive. For one credit the students will be expected to: • 7 IPE sessions • Patient follow up activity/academic research endeavor: 2 hours, to be scheduled with Drs. Leiman/Waite. • One Multimedia Educational Project with presentation to fellow students and faculty at end of rotation. • For 2 credits the student will be expected to: • 12 IPE sessions • Patient follow up activity/academic research endeavor: 4 hours, to be scheduled with Drs. Leiman/Waite. • One Multimedia Educational Project with presentation to fellow students and faculty at end of rotation. • One significant QI project to be done longitudinally through rotation and presented at conclusion of rotation. Expectation is that this will need to be semester long in order to complete a PDSA cycle. For more information, please contact Dr. Waite at [Kathleen.waite@duke.edu](mailto:Kathleen.waite@duke.edu) or Dr. Leiman at [erin.leiman@duke.edu](mailto:erin.leiman@duke.edu). Credit: 1-2; Enrollment Max: 2.  
*Kathleen Waite, MD and Erin Leiman, MD*

**EMERGMED-408C. Direct Observation and IPE Student Clinic Leadership Elective II.** Senior students provide leadership to the direct observation and IPE student clinic. Students will help define goals for the clinic, barriers to achieving these goals, and solutions to these barriers. Main roles will include leading the clinical team (responsibility for direct clinical operations, such as opening the clinic each night, selection of clinic patients, teaching and providing feedback to other learners in clinic) and engaging in quality improvement that impacts the learners (i.e. developing formal teaching modules/videos/simulations) and that impacts patients (patient access to health care, patient flow, patient satisfaction, patient outcomes and or learner). This elective will give students a direct role in shaping a clinic for patient care. Students will gain insight into important aspects of systems-based practice: from laws governing care to patients with possible emergent/urgent medical conditions, to health care finance and reform, and healthcare reimbursement. The elective will run through the entire semester and the clinic sessions are not expected to be consecutive. For 3 credits the student will be expected to: • 17 IPE sessions • Patient follow up activity/academic research endeavor: 6 hours, to be scheduled with Drs. Leiman/Waite. • One Multimedia Educational Project with presentation to fellow students and faculty at end of rotation. • One significant QI project to be done longitudinally through rotation and presented at conclusion of rotation. Expectation is that this will need to be semester long in order to complete a PDSA cycle. For 4 credits the student will be expected to: • 22 IPE sessions • Patient follow up activity/academic research endeavor: 8 hours, to be scheduled with Drs. Leiman/Waite. • One Multimedia Educational Project with presentation to fellow students and faculty at end of rotation. • One significant QI project to be done longitudinally through rotation and presented at conclusion of rotation. Expectation is that this will need to be semester long in order to complete a PDSA cycle. For more information, please contact Dr. Waite at [Kathleen.waite@duke.edu](mailto:Kathleen.waite@duke.edu) or Dr. Leiman at [erin.leiman@duke.edu](mailto:erin.leiman@duke.edu). Credit: 3-4; Enrollment Max: 1.  
*Kathleen Waite, MD and Erin Leiman, MD*

## Interdisciplinary

### Required Course

**INTERDIS-450C. Capstone.** – This mandatory course for all fourth-year medical students will provide important information and tools to prepare medical students for their first year of residency. Topics covered include the following: providing compassionate and effective patient care, learning practical intern tips, further developing medical knowledge about established and evolving biomedical, clinical, and cognate sciences, honing interpersonal communication skills with patients/families/other health professionals, professionalism relative to responsibilities, adherence to ethical principles, sensitivity to a diverse patient population, and understanding systems-based practices. For more information, students should contact Dr. Jamie Fox (james.fox@duke.edu) or Dr. Julian Hertz (julian.hertz@duke.edu). This is a longitudinal course. Students must enroll in the course for the Fall term and select '0' credits. They also will need to enroll for the Spring term and select 4 credits. The final grade and credits will be awarded in the Spring term. If you have additional questions, please contact Dr. Fox (james.fox@duke.edu). Credit: 4. Enrollment max. 130. *James (Jamie) Fox, MD and Julian Hertz, MD*

### Clinical Science Electives

**INTERDIS-401C. Acute Care Curriculum.** Critical Care is not limited by location and focuses on the care of patients with acute life-threatening illnesses. Every practitioner needs the ability and fundamental knowledge to quickly recognize and initiate appropriate, timely management which can prevent further patient deterioration and end-organ damage. Multidisciplinary care depends on respect and communication for the best outcomes. The cost of health care continues to grow and much of it is spent in the intensive care setting, often in the last months of life. The use of technology must be tempered with sound judgment and quality versus quantity must be addressed. The course should be taken simultaneously with the four-week, four-credit course that will satisfy the acute care course requirement as the course builds on the clinical environment and vice versa. The course includes in-person learning every Friday from 12-4pm. The 4th week of Summer 44, class will be Thursday 8am-12pm, to accommodate the School of Medicine Research Day. Attendance is MANDATORY for all weeks. Excused absences are at the discretion of the Course Director and for activities related to professional growth only (interviews, presenting at conference). Only one absence will be excused per student. Students requiring >1 absence will need to drop the course and retake at a later date. Offered summer 41, 42, 43 and 44 (minimum of 5 students/no drops); fall 41, 42, and 43; spring 41 and 42. Primary Contact: Course Director Dr. Sharon McCartney @ Sharon.McCartney@duke.edu. Course coordinator: Tekisha Tedder, tekisha.tedder@duke.edu. Credit/No Credit. Zero credits. Enrollment max: 24; min: 5. *Sharon McCartney, MD; Sandy An, MD and Mitchell Black, MD*

**INTERDIS-402C. Introduction to Healthcare Markets and Policy for Health Professionals.** The purpose of this elective is to provide students with a working understanding of the business and policies that drive the U.S. healthcare system. The course structure is designed to be engaging with interactive readings and case studies, small group discussion, and visiting faculty lecturers from the Duke-Margolis Institute for Health Policy, Duke University's Fuqua School of Business, Duke Law School, and community

and governmental organizations. The 90-minute sessions will take place on weekday evenings in the Duke South Amphitheater about every 2-3 weeks from August to April (total 10 sessions). Pre-reads/views are assigned for each session, and an individual readiness assessment will be performed based on the assigned pre-reads/views. Learners will write a health policy brief from a list of selected topics as a final project. For more information, please contact Don Bradley ([don.bradley@duke.edu](mailto:don.bradley@duke.edu)). Credit: 1, Non-Direct Patient Care Credit. Credit is awarded in the spring at the conclusion of the longitudinal course. Enrollment max: 115; min. 10. Note: credit will be awarded in the spring term. *Don Bradley, MD, MHS-CL*

**INTERDIS-403C. Narrative Medicine for Medical Learners.** This elective course is a fourth-year clinical elective where students will discuss selected works of literature that address the human condition in a way that is meaningful to physicians-in-training. The course is open to third- and fourth-year medical students. The aim is to incorporate literature into the medical training experience, give students the opportunity to practice reflective writing, and the space to explore the humanistic roots of medicine. In this course we will examine the intersection between the domains of narrative and medicine through the study of diverse representations of medical issues. Among the questions we will ask are: how does narrative give us greater insight into illness, medical treatment, doctor-patient relationships, and other aspects of health and medicine? How do illness and other experiences within the realm of medicine influence ways of telling stories? How do doctors' perspectives and patients' perspectives differ, and what, if anything, should be done to close those differences? Attendance to all sessions is mandatory. However, with advanced approval from the course director, a student may miss one session, but the student must submit a written reflection of the readings for the missed session, as outlined by the course director, in order to receive credit for the course. This course will be offered during the first eight weeks of the spring term. The course will meet once a week for eight weeks, on Wednesday evenings, starting in January, from 6:00p - 8:00p. Open to MS3 students (with mentor approval) and to MS4 students. For questions, please contact Dr. Quaranta via email, [brian.quaranta@duke.edu](mailto:brian.quaranta@duke.edu). Credit: 1, Non-Direct Patient Care credit. Enrollment Max.:12; Min. 8. *Brian Quaranta, MD*

**INTERDIS-406C. Physician Leadership: From Daily Challenges to Global Crises.** This course will be a seminar-type offering, with guest lectures, readings and video content providing the basis for discussions on the leadership challenges physicians face at all levels during times of crisis as well as during their daily efforts. The Educational Framework for the Course is below. Course schedule: - 8-week course; meets once a week (Monday, 5:15 pm – 7: 15 pm), 120 min per session: Each session will be broken down in to 20 min intro/guest lecture presentation, followed by small group sessions of 5-6 students, sharing from groups, and wrap up. Short written reflective requirement from each class session and a book review. Enrollment Max.: 25; Min.: 6. Credit: 1. *Dean Taylor, MD and Joe Doty, PhD. Faculty: Chan Park, MD*

**INTERDIS-407C. Duke Design Health Fellows Program. (For students in the Duke Design Health Fellows Program).** The Duke University Design Health Fellows Program is an interdisciplinary, patient-focused program that discovers pressing needs in healthcare and assembles teams from across engineering, business, medicine and other disciplines to create solutions. The program provides an immersive learning experience to undergraduate, graduate and postgraduate fellows who actively identify, validate, prioritize and solve problems that have an impact on human health. At its foundation, the program seeks to educate students in innovation through immersion and project-based learning. It also aspires to serve as a source of identified needs and intellectual property that feeds into other design

and entrepreneurship activities at Duke and beyond. Maximum Enrollment: 10; Credit: 1-4. *Eric S. Richardson, PhD*

**INTERDIS-408C. Bone and Soft Tissue Multidisciplinary Experience.** This 2-week course will provide a deep dive into musculoskeletal (MSK) disorders, focusing mostly on the diagnosis of bone and soft tissue neoplasms, their presentation and clinical management. This collaborative and integrated course will expose students to orthopedic pathology, surgery, and radiology subspecialties. Students will participate in cross-disciplinary conferences and tumor boards, a multidisciplinary clinic, imaging interpretations, and diagnostic and intraoperative consultation within surgical pathology. In addition to this in-depth exposure to MSK disorders, this rotation aims to provide students a better understanding of the intersection of these highly interactive healthcare teams. Enrollment Max. 1; Credit: 2. *Diana Cardona, MD; Robert French, MD; Brian Brigman, MD; and Rex Bentley, MD*

**INTERDIS-409C. Duke Design Health Research Scholars. (For students in the Duke Design Health Research Scholars program).** The Duke Design Health Research Scholars program allows medical students to work on independent study projects centered around designing engineering solutions for pressing needs in healthcare. Students will work under the guidance of engineering faculty and meet in teams with other students from multiple disciplines including engineering, business, and medicine. Intended as an independent study course separate from the Design Health Fellows program (INTERDIS 407C), this program provides real world experience in engineering research and development. At its foundation, the program seeks to educate medical students in engineering, entrepreneurship, and innovation through immersion and project-based learning. Maximum Enrollment: 10; Credit: 1. Course Director(s): *Eric S. Richardson, PhD; Paul J Fearis, MA ; Joseph A Knight, PhD, MBA*

**INTERDIS-410C. Academic Enrichment Fourth Year.** This course is for fourth year (MS4) students with no scheduled classes, but will be preparing for board exams, residency interviews, approved workshops/presentations, additional clinic time, and other academic opportunities are required to enroll in Academic Enrichment for all periods of Non-Enrollment. No Grade. No Credit.

**INTERDIS-422C. Exploring Medicine: Cross-Cultural Challenges to Medicine in the 21st Century.** The purpose of this course is to promote understanding the cultural background of the people of Latin America (particularly Honduras) and how that impacts the delivery of medical care. The course content is designed to facilitate understanding how art, history, literature, music, geography, ethics, religion and social drivers of health influence the practice of medicine in the Latin American Culture. The Classes will be given by multidisciplinary faculty from Duke, the University of Colorado, and local experts. Medical Spanish instruction is included in each class to facilitate understanding the culture and facilitate encounters with Spanish speaking patients in our own environments as well as in Honduras. The course will be held as a 2-hour seminar for 12 weeks (begins in early January) with the trip to Honduras as an optional laboratory experience. There will be 20 hours of instruction. For more information, please contact Rosa Solorzano, ([rosa.solorzano@dm.duke.edu](mailto:rosa.solorzano@dm.duke.edu)). Students meet for the first day of classes in the School of Nursing Amphitheater the first Tuesday of the Spring Semester at 6:00 p.m. This selective was approved, effective spring 2013, for third- and fourth-year medical students. Third year students must obtain mentor approval. Non-direct patient care elective. Credit: 1 Enrollment - up to 15 students. *Rosa Solorzano, MD*



## Medicine

### Sub-Internships

**MEDICINE-401C. Internal Medicine Sub-Internship.** Course Goals: To provide an internal medicine inpatient care experience at the intern level. (2) How Goals Are Achieved: Students are assigned to an inpatient service at Duke University Hospital, Duke Regional Hospital or the Durham VA. These services include the general medicine services at all three hospitals, where internal medicine residents and attendings supervise the students; students may also rotate in the medical intensive care unit, in the cardiac intensive care unit, or on the cardiology service at Duke Hospital. The student functions as an intern on that service with the exception that orders must be countersigned by a resident or attending. Overnight duty consisting of night float responsibilities may be included over the course of the four-week schedule. The supervising resident or attending determines the number of patients assigned with anticipated increases over the four weeks. (3) Methods of Evaluation: Students are evaluated by their residents, fellows, and attendings. The evaluation form is made available to each student at the beginning of the rotation. Prerequisites: permission of instructor is required in order to add the course and permission is required in order to drop the course. In order to drop the course, students must provide at least 14 days advanced notice and permission of instructor is required. Failure to do so will result in a grade of Incomplete ('I') or a Withdrawal ('W') may be assigned. Please contact Marianne Drexler at [mmd19@duke.edu](mailto:mmd19@duke.edu) for more information. Course is not available for visiting medical students. Credit: 5. Enrollment: max: varies by term. *Jenny Van Kirk, MD, John Roberts, MD and staff*

**MEDICINE-402C. Medical Sub-Internship in Hematology-Oncology.** (1) Course Goals: This is an intensive experience in the care of inpatients with serious hematologic and oncologic disorders. The student learns to interpret peripheral blood films, how to use and interpret other specialized laboratory tests (e.g., bone marrow aspirate/biopsy, serum electrophoresis, coagulation studies, tumor markers, leukemia cell markers), and how to approach the evaluation and treatment of hematologic and solid tissue malignancies and their complications. (2) How Goals Are Achieved: Under supervision of a Hematology/Oncology fellow and a division staff member, the student is given considerable responsibility in the care of inpatients on one of the Hematology/Oncology or Experimental Therapeutics wards in Duke Hospital. They receive instruction and guidance in performing diagnostic and therapeutic procedures and gain experience in the use of chemotherapeutic drug regimens. Specific issues such as quality of life, care of the aging patient with malignancy, and decisions regarding DNR status are addressed by the patient-care team. In addition, students receive a series of core lectures, receive training in chemotherapy, and attend the ongoing clinical, research and didactic divisional conferences. (3) Methods of Evaluation: Students are evaluated by their preceptors on the basis of their ability to obtain a history, perform a physical examination, evaluate hematologic and other laboratory data, and propose assessments and plans of action. For more information, please contact Nyasia Lloyd at 684-2287 or via email at [nyasia.lloyd@duke.edu](mailto:nyasia.lloyd@duke.edu). Credit: 5. Enrollment: max 1. *Cristiana Costa Chase, MD and Medical Oncology staff*

**MEDICINE-404C. Cardiac Intensive Care Unit Sub-Internship.** (1) Course Goals: Primary - To provide an in-depth experience in the evaluation and care of inpatients with various cardiovascular problems. Secondary -To refine student understanding of the cardiovascular history, physical examination and non-

invasive and invasive laboratory testing in evaluating and managing patients with known or suspected acute cardiovascular disease, including acute coronary syndromes, life threatening arrhythmias, acute heart failure, and shock. (2) How Goals Are Achieved: Students are assigned to the Duke CICU and, in concert with the house staff, cardiology fellows, and senior staff attendings, work up and manage patients admitted to the CICU. (3) Methods of Evaluation: Students are evaluated by all resident, fellow, and senior staff with whom they work. The evaluation form is available at the beginning of the elective. Depending on circumstances, students may also be evaluated by written and practical examinations at the beginning and/or end of the elective. For more information, please contact Dawne Smith at 668-1524 or via email at [dawne.t.smith@duke.edu](mailto:dawne.t.smith@duke.edu). Prerequisite: Successful completion of an accredited internal medicine clerkship. Credit: 5. Enrollment: max 2. *Robert Harrison, MD and cardiology staff*

**MEDICINE-405C. Intensive Care Medicine Sub-Internship (Duke).** Course Goals: (1) Primary - To introduce the student to a pathophysiologic approach to critically ill adults. Secondary - To provide an opportunity for students to perform selected procedures. (2) How Goals Are Achieved: Students function as sub-interns in a very active intensive care unit. Students perform patient evaluations, procedures, and develop diagnostic treatment plans under the direct supervision of the junior assistant resident, critical care fellow, and attending physician. Add Typical shifts are 6am to 6pm, six days a week with one weekend day off. Physiology and biochemistry-based approach to critical care medicine is stressed. Emphasis is placed on bedside teaching with easy access to attending physicians and critical care fellows for the discussion of specific patient-oriented questions. Preferences for the month of rotation are honored, if possible. Questions should be directed to Dr. Young, [katherine.a.young@duke.edu](mailto:katherine.a.young@duke.edu). (3) Methods of Evaluation: Each student's performance is assessed by the course director through direct observation of the student in the clinical and didactic environments. Input from the residents, fellows, and other attending physicians is obtained, and provides the primary basis for grade assignment. IMPORTANT: Students may need to take care of COVID patients and need to be vaccinated for COVID in order to take the rotation. For more information, please contact Donna Permar at 681-5919 or via email at [donna.permar@duke.edu](mailto:donna.permar@duke.edu). Permission of the Instructor is Required for Enrollment. Please contact Dr. Young for permission ([katherine.a.young@duke.edu](mailto:katherine.a.young@duke.edu)) Credit: 5. Enrollment: max 4. *Katie Young, MD and critical care staff*

**MEDICINE-407C. Sub-Internship in Internal Medicine/Psychiatry.** This course is an intensive clinical experience in the diagnosis and treatment of acute co-morbid medical and psychiatric disorders requiring inpatient hospitalization. Students participating in this four-week elective based in Duke Hospital are expected to function at intern-level, assuming care of a small census of complex patients. The Medicine/Psychiatry faculty on the GenMed 12 service provides direct supervision. The goal of the elective is to refine and then clinically apply basic knowledge from the fields of Internal Medicine and Psychiatry. Participation at selected case conferences and didactic sessions is expected. Students are invited to attend the intern lecture series during Psychiatry Academic Half-day and educational offerings in Internal Medicine, including Intern Report. For more information, please contact Dr. Kristen Shirey via email, [kristen.shirey@duke.edu](mailto:kristen.shirey@duke.edu); secondary contact: Cathy Lefebvre, [cathy.lefebvre@duke.edu](mailto:cathy.lefebvre@duke.edu). Preference is given to students considering a career in combined Medicine-Psychiatry. Prerequisite: permission of instructor and successful completion of PSYCHTRY-205C and MEDICINE-205C. C-L PSYCHTRY 407C. Credit: 5. Enrollment: max 1. *Kristen Shirey, MD*

## Clinical Science Electives

**MEDICINE-412C. Hospital Medicine.** The student on the Hospital Medicine elective will help manage acutely ill patients as a member of the Hospital Medicine Service. Three major learning areas may be emphasized. 1) Procedures including thoracentesis, paracentesis, and lumbar puncture through participation and direct observation. 2) Management of inpatients on the Hospital Medicine service. 3) Overnight patient care including patient admissions, cross cover emergencies, and transitions of care. This course is a two-week course. When contacting the course director with interest, please indicate if you prefer the first or second two weeks of the four-week block. Prerequisite: Permission of course director is required. Contact [talía.bernal@duke.edu](mailto:talía.bernal@duke.edu) for permission to enroll. Enrollment Max.: 2. Credit: 2. *Talia Bernal, MD*

**MEDICINE-414C. Introduction to Outpatient Primary Care Internal Medicine.** The rotation is best suited for students interested in pursuing a career in primary care or internal medicine due to the faster pace of clinic. Course Goals: At the end of the experience, students should be able to 1) Diagnose and manage a number of common internal medicine and primary care problems including a wide variety of diseases that are generally seen only in the ambulatory setting 2) Be familiar with current USPSTF guidelines for preventive services and cancer screening, 3) Competently and efficiently take a problem-focused history, perform a directed physical exam and perform some office-based procedures. How Goals Are Achieved: The student will work with faculty preceptors within Duke Primary Care, Duke Outpatient Clinic, and other community-based offices spending one or more days per week seeing patients with a preceptor. The student will see patients at multiple different sites with multiple preceptors. Clinical sites are located both at Duke and in the surrounding communities. A diverse mix of patients and conditions are seen in the outpatient setting. Patients present for preventive services, as well as, management of chronic diseases such as diabetes, hypertension, heart disease, osteoporosis, and common mental health conditions. In addition, patients are seen for acute illnesses such as pneumonia, pharyngitis, sinusitis and urinary tract infections on a same day basis. Patients routinely present with symptoms that have not been previously evaluated or diagnosed, allowing students to truly sharpen their clinical skills. The student evaluates selected patients first then presents and discusses the case with the attending. The student must outline in writing five goals that he or she wishes to accomplish during this rotation. The student's goals should be emailed to Dr. Waite at least three weeks before the rotation begins. Methods of Evaluation: The faculty preceptor who works directly with the student does the student evaluation. Grades are based on the student's interactions with patients, his or her clinical thinking regarding diagnosis and management of their problems, and documented records. Professionalism, fund of knowledge, and commitment to learning are highly weighted. Prerequisites: Students must be enrolled in their fourth year of medical school at Duke and must have completed first, second, and third year requirements as demonstrated by advancement by the Promotions Committee to fourth year student status. Students must have access to the Duke Maestro Care computer system to effectively function in clinic. Students must contact Dr. Kathleen Waite via email ([waite001@mc.duke.edu](mailto:waite001@mc.duke.edu)) to determine time and location for initial meeting. They must also contact Dr. Waite in advance of the course start date to create goals and schedule. Dr. Waite can also be reached by phone at 919-619-2642. Credit: 1 (10 clinic sessions, 4 hours each session over a four-week block) or 2 (20 clinic sessions, 4 hours over a four-week block). Due to scheduling issues it is not possible to complete this elective in a 1- or 2-week period of time. Please note

that this is a 1 or 2 credits only. Enrollment: max 1 student for 2 credits. *Kathleen Waite, MD; Ranee Chatterjee, MD; Chris Fink MD, Denise Pong MD, Kevin Shah, MD; and other outpatient faculty*

**MEDICINE-415C. Clinical Management of Obesity.** The unique blend of clinical and research programs related to obesity at Duke provides an opportunity for students to learn how to evaluate and manage obesity in many ways. This elective involves attendance in outpatient clinics or residential programs related to obesity or obesity-related co-morbidities including multidisciplinary outpatient programs (Lifestyle and Weight Management Center, Pediatric Healthy Lifestyles), residential programs (Structure House), Metabolic and Weight Loss Surgery, Adult and Pediatric Endocrinology, Cardiometabolic Clinic, Keto Medicine Clinic, Metabolic Dysfunction-Associated Fatty Liver Disease Clinic, and Sleep Disorders Center. Students will have the opportunity to observe and take part in clinical care as well as observe ongoing studies and attend lectures at various clinical and research conferences. In consultation with the course director, an independent project related to obesity will be completed. For more information, please contact Dr. Yancy at 919-491-8527 or via email at [will.yancy@duke.edu](mailto:will.yancy@duke.edu). Credit: 4. Enrollment: 1. Faculty: *William Yancy, MD; Sarah Armstrong, MD; Amreen Dinani, MD; Dana Portenier, MD; Andrew Spector, MD; Eric Westman, MD*

**MEDICINE-416C. Effective Clinical Teaching.** The course aims to make students more effective clinical teachers in preparation for their role as teachers during residency. Strategies include classroom discussion of adult learning theory, facilitating small-group learning, teaching at the bedside, teaching using clinical cases, and giving effective feedback. Weekly participation in role plays of teaching scenarios is required. The final project is an 8 to 10-minute video-recorded 'chalk talk' on the topic of one's choice. Students self-reflect on the talk and obtain feedback from their classmates and instructor to develop a teaching improvement plan. Attendance at course sessions is mandatory. Permission of instructor is required. The classes meet Mondays from 5:00p - 7:00p. Students should contact Dr. Taylor Broome at [taylor.broome@duke.edu](mailto:taylor.broome@duke.edu) to obtain a permission number. Credit: 1. Enrollment: max 10, min 4. *Taylor Broome, MD*

**MEDICINE-423C. Rheumatology.** (1) Course Goals: For students to learn the basics of the evaluation and management of patients with inflammatory and non-inflammatory arthritis, autoimmune and immunological disorders. Diseases seen include the various forms of arthritis and other inflammatory diseases such as lupus and other connective tissue diseases, vasculitis, scleroderma, and myositis. Students will also learn to interpret specialized laboratory studies relating to the evaluation of patients with rheumatic and immunological disorders. Students are exposed to joint aspiration and injection, synovial fluid analysis, musculoskeletal radiology, and histopathological analysis. (2) How Goals Are Achieved: Two weeks of the rotation are spent in the Duke Rheumatology faculty clinics located in Duke South Clinics and in our South Durham or Brier Creek (Raleigh) locations. Two weeks are spent as part of the rounding team on the Duke Hospital inpatient rheumatology consultation service. The inpatient consultation team includes an attending physician, a fellow, a student and possibly 1 resident. Students are expected to perform at least three new inpatient consultations each week. Rounds focus on oral presentation of patients including detailed review of history, physical examination findings, pertinent laboratory, x-ray and pathological findings. Students attend divisional conferences including weekly Rheumatology and Immunology Grand Rounds, Rheumatology Fellows Core Curriculum Conference, Journal Club, and Rheumatology/Radiology Conference. Students are expected to watch two introductory



videos, one on the approach to the rheumatology patient and one on the rheumatologic musculoskeletal examination. Justification for a grade of honors includes the following: Evidence through direct observation of house officer-level clinical skills in rheumatology; evidence of timely completion of learning modules, demonstrated by 1) active participation in and preparation for weekly meetings and 2) completion of the log of learning points and questions; 3) attendance at conferences listed above; 4) evidence of additional reading through case presentations to faculty members; 5) faculty evaluations; 6) demonstration of exemplary interest and effort during the rotation. Students are assigned primary house officer level responsibilities on the Consultation Service and the Outpatient Clinics at Duke South/South/Durham/Brier Creek. (3) Methods of Evaluation: Students are evaluated by the primary faculty and fellows with whom they work. Evaluations are based on students' performance on rounds and in the clinics, including history and physical examination skills and conference attendance. For more information, please contact Dr. Maheswaranathan ([mithunan.maheswaranathan@duke.edu](mailto:mithunan.maheswaranathan@duke.edu)). Students may also contact Nyasia Lloyd ([nyasia.lloyd@duke.edu](mailto:nyasia.lloyd@duke.edu)). Credit: 4. Enrollment: max 1. *Mithu Maheswaranathan, MD; David Caldwell, MD; Philip Chu, MD; Megan Clowse, MD; Atul Kapila, MD; David Leverenz, MD; Jennifer Rogers, MD; Ankoor Shah, MD; William St. Clair, MD; Terri Tarrant, MD; Rebecca Sadun, MD; Kai Sun, MD; Sophia Weinmann, MD.* Sole Enrollment

**MEDICINE-424C. Fluids and Electrolytes.** The Fluids and Electrolytes Course will consist of eight sessions on both the physiology of fluid, electrolyte, and acid-base homeostasis and on the pathophysiology of fluid, electrolyte, and acid-base disorders. Emphasis will be placed on the clinical application of these concepts: from the rational administration of intravenous fluid, to the interpretation of arterial blood gases, to the diagnosis of primary hyperaldosteronism. This course will be of value to just about any student who plans to take care of patients. Students must verify that there is no time conflict with other courses offered during the same time period. Enrollment is open to all eligible students, no permission from course faculty is required to enroll. The course is offered during the Spring section 81 only (roughly early January to end of February). We understand many students are traveling for interviews during this section. In 2024, we will host the course as a hybrid virtual and in-person course. All sessions will be live-streamed and recorded. All sessions are mandatory aside from any excused absences. We will require you to attend in-person for AT LEAST 4 of the 8 sessions. The rest you can attend virtually. This hybrid format permits a larger class size. Also, many students are traveling during the course and this format can accommodate your travels more easily. You will need a working computer/tablet/smartphone and internet access to participate in the course. We do allow one unexcused absence. Excused absences will need to be cleared by the Course director. Classes will be held on Wednesday evenings from 5:30p - 7:30p. Credit: 1. Minimum Enrollment: min: 8; Maximum Enrollment: 40. To enroll after the course has filled, you will need special permission from the Course Director, Dr. John Roberts ([john.roberts@duke.edu](mailto:john.roberts@duke.edu)). John Roberts, MD Rasha Raslan, MD.

**MEDICINE-425C. Clinical Hematology.** (1) Course Goals: Primary - To teach the clinical and laboratory approach to patients with a hemorrhagic or thrombotic disorders. The student learns to evaluate clinical coagulation disorders and become familiar with coagulation laboratory testing and interpretation. Secondary - To expose the student to recent advances in the area of coagulation research. (2) How Goals Are Achieved: The student spends four weeks on the Hematology Consult Service under the direction of hematology division faculty. The student is expected to work up in-patients with coagulation problems referred to the Coagulation Service as well as participate in a half day a week Coagulation Outpatient

Clinic. Patients generally present with complex diagnostic as well as therapeutic problems. The rotation includes Coagulation lab rounds during which the student learns to interpret lab tests and review abnormal results. The student is expected to read standard texts regarding their patients' problems, as well as relevant reviews provided by the attending physician. The student may also interact with the Anticoagulation Management Service to gain a better understanding of various approaches to outpatient management of anticoagulant therapy. Students electing to do an eight-week rotation have a more extensive laboratory and clinic research experience. (3) Methods of Evaluation: The student's performance is evaluated by the hematology attending with input from the fellow and/or medicine resident on the service. The evaluation is based on observation of the student's ability to do careful histories and physical examinations, to appropriately assess the problem and develop a logical diagnostic and therapeutic plan, and to demonstrate an increase in knowledge regarding laboratory tests and their application to clinic problems. For more information, please call Nyasia Lloyd at 681-4510, or by email at [nyasia.lloyd@duke.edu](mailto:nyasia.lloyd@duke.edu). Credit: 4. Enrollment: max 1. *Thomas Ortel, MD; and hematology staff*

**MEDICINE-427C. Hospice and Palliative Medicine.** Hospice and Palliative Medicine is a specialty that is focused on the treatment of patients living with serious illness. Comprehensive care, including physical (primarily symptom management), psychological, and spiritual care, is provided by an interdisciplinary team to patients and families to help alleviate suffering and promote quality of life. Rotation Information: This 2-week (Monday-Friday), 2-credit elective provides students the opportunity to observe and work alongside palliative care practitioners in inpatient settings including the palliative care consult services at Duke University Hospital and Duke Regional Hospital, as well as inpatient hospice exposure through Duke Home Care & Hospice. The importance of interdisciplinary teamwork will be emphasized. A schedule will be sent to you by email prior to the first day. Attendance/Absence Policy: Please note that because this is a 10-day rotation, students are required to be present with the team a minimum of 8 days (80% of the course) in order to make the most of the rotation and to ensure that our clinicians are able to appropriately assess and grade the learning experience. If students need to miss more than 2 days of the rotation they will need to drop the course at least 10 days prior to the start date to allow time for other learners to have an opportunity to enroll. All absences must be approved by the course director (Dr. Neha Kayastha) before the start of your rotation. Registration: We are unable to reserve spots for this rotation, therefore, we no longer require permission numbers. Once registration opens, you may register for the course without a special permission number. Once you are registered for the course, please email [jennifer.bowen@duke.edu](mailto:jennifer.bowen@duke.edu) to request your preferred 2 weeks during the 4-week block (either the first 2 weeks or the second 2 weeks of the block). Jennifer will confirm the 2 weeks that are assigned to you via email (the preferred 2 weeks goes to the person who requests it first). Add/Drop: Please email the course director, Dr. Neha Kayastha and the educational admin Jennifer Bowen via email at [neha.kayastha@duke.edu](mailto:neha.kayastha@duke.edu) and [jennifer.bowen@duke.edu](mailto:jennifer.bowen@duke.edu) if/when you add or drop the course. For more information, contact the course director Dr. Neha Kayastha and the educational admin Jennifer Bowen via email at [neha.kayastha@duke.edu](mailto:neha.kayastha@duke.edu) and [jennifer.bowen@duke.edu](mailto:jennifer.bowen@duke.edu). Credit: 2 Enrollment max: 2. *Neha Kayastha, MD; and other faculty providers, Alisha Benner, MD; Ashley Allen, MD; David Casarett, MD; Farr Curlin, MD; David Fisher, MD; Jonathan Fischer, MD; Sarah Gall, MD; Kimberly Johnson, MD; Chris Jones, MD; Karen Jooste, MD; Megan Jordan, MD; Neha Kayastha, MD; Amy Lee, MD; Delani Mann, MD ; Kristin Meade, MD; Wil Santivasi, MD; APP's: Jennifer Gentry, DNP; Samantha Slowinski, NP; Paula McKinzie, NP; Leigh Howard, NP; Lindsey Jackson, NP; Ashley Toscano, LCSW; Eileen Williams, LCSW; as well as rounding chaplains at all three clinical sites.*

**MEDICINE-428C. Metabolism and Endocrinology.** 1) Course Goals: Primary - The student has an in-depth experience in the evaluation and management of patients with endocrine disorders. Secondary - The student learns basic principles of hormone physiology and applies these concepts in clinical settings. (2) How Goals Are Achieved: Each student is introduced to patient problems by working with the Endocrine faculty. The student is exposed to clinical endocrine disorders by seeing patients in endocrine outpatient clinics (Diabetes/ General Endocrine, and Durham VA Medical Center General Endocrine Clinics), as well as experiencing the inpatient Diabetes Management/General Endocrine Consult Service. The student has the opportunity to review general literature on common endocrinologic conditions and endocrinologic emergencies, as well as learning basic assessment skills of the patient with diabetes, thyroid disease, and other common endocrinologic presentations. Division conferences include Grand Rounds, Case Conference, and Inpatient Consult Rounds with opportunities to integrate basic concepts with clinical applications. (3) Methods of Evaluation: A written critique is provided by the student's preceptors with comments from other members of the division as appropriate. For more information, including where to report on the first day of classes, please contact via email Dr. Beatrice Hong, [beatrice.hong@duke.edu](mailto:beatrice.hong@duke.edu). Secondary contact: Dr. Spratt ([susan.spratt@duke.edu](mailto:susan.spratt@duke.edu)). Credit: 4. Enrollment: max 2. *Beatrice Hong, MD and endocrinology staff*

**MEDICINE-431C. Adult Allergy and Clinical Immunology.** Enrollment Requisite: Students must contact Dr. Lugar prior to enrolling in the course. The adult allergy and clinical immunology elective consist of direct patient care, didactic sessions, independent readings and hands-on training of various clinical and laboratory test modalities that are used in clinical practice. This elective will provide exposure to patients with various allergic and immunologic disorders including allergic rhinitis, sinusitis, asthma, hypersensitivity pneumonitis, allergic conjunctivitis, diseases associated with autoimmunity, immunodeficiencies and allergic skin diseases. Additionally, the student will obtain hands-on practice with allergy skin testing as well as conducting other immunology labs. The schedule and content can be individualized on the basis of the student's needs and goals. Students must contact the course instructor, Dr. Patricia Lugar, [patricia.lugar@duke.edu](mailto:patricia.lugar@duke.edu), to arrange meeting location. Secondary contact: Jason Bullock at 919-613-5707. Credit: 4. Enrollment max: 1. *Patricia Lugar, MD*

**MEDICINE-432C. Introduction to Duke Medical Intensive Care Unit.** Course Goals Introduce students to the principles of the diagnosis and care of critical illness. This course is identical to MEDICINE 405C but is the 2-week elective rather than 4-week elective. By the end of the course students should be able to recognize the pathophysiologic processes underlying shock and respiratory failure, should be able to recognize basic principles of mechanical ventilation and have explored death and dying issues as they apply in the ICU. How Goals Are Achieved Students perform patient evaluations and procedures as well as diagnostic and treatment planning under the direct supervision of a junior medical resident, pulmonary fellow, and critical care attending. Educational material is available on the Duke MICU website ([sites.duke.edu/micu](http://sites.duke.edu/micu)) but patient-oriented, evidence-based, bedside training is the primary teaching method. Evaluation The attending physician, critical care fellows and residents primarily assess each student's performance. Input from junior medical residents working with each student is also obtained, as is the input of the course director. For questions or to obtain a permission number to enroll, please contact Dr. Young via email, [katherine.a.young@duke.edu](mailto:katherine.a.young@duke.edu). Requisite: Students that take this course are not eligible to enroll in MEDICINE 405C. This course does not satisfy the Acute Care Course requirement.

The course will be graded 'Credit/No Credit'. Permission of the instructor is required for enrollment. Course Credit: 2; Maximum Enrollment: 2 per section. *Katie Young, MD;*

**MEDICINE-434C. Outpatient Hematology-Oncology (Duke or Durham VA).** (1) Course Goals: To give the student experience in the diagnosis, long-term treatment, and supportive care of patients with hematologic and oncologic disorders in the outpatient setting. The use and interpretation of peripheral blood films and other specialized laboratory tests (e.g., bone marrow aspirate/biopsy, serum electrophoresis, coagulation studies, tumor markers, leukemia cell markers), as well as an approach to the evaluation and treatment of common hematologic problems (anemias, bleeding and clotting disorders, hematologic and solid tissue malignancies) are included. Issues such as quality of life and care of the geriatric oncology patient are addressed. (2) How Goals Are Achieved: The student is assigned several preceptors in the Hematology/Oncology clinic for five full days per week during a four-week block. If desired, preceptors who concentrate mainly on hematology or oncology may be arranged. (3) Methods of Evaluation: Students are evaluated by their preceptors on the basis of their ability to obtain a history, perform a physical examination, evaluate hematologic and other laboratory data, and propose assessments and plans of action. NOTE: Students cannot drop the course 2 weeks prior to the course start date. For more information, please call Nyasia Lloyd at 684-2287 or via email, [nyasia.lloyd@duke.edu](mailto:nyasia.lloyd@duke.edu). Credit: 4. Enrollment: max 1. *Matthew Labriola, MD, and Hematology, Medical Oncology and Cell Therapy staff*

**MEDICINE-435C. Gastroenterology.** (1) Course Goals: Primary - To provide an experience from which the student can develop a fundamental approach to the diagnosis and management of digestive diseases. (2). Goals Are Achieved: Through participation in the care of patients under the guidance of the fellows and faculty on the GI Consult Services (Duke Hospital), Liver Service (Duke), Biliary Service (Duke), VA Hospital GI consults and Outpatient GI Clinics. (3) Methods of Evaluation: Evaluations are completed by the course director, attendings, and fellows working with the student and include assessment of clinical skills, fund of medical knowledge, and the ability to apply this knowledge to the care of patients. Course meets at 8:00 am, Monday through Friday. No holiday or weekend coverage for students. Prior to the start of rotations, students will receive an email detailing their specific schedule, assigned supervising fellow and meeting location. For more information, please contact Anna Baker at 681-8852 or via email at [anna.r.baker@duke.edu](mailto:anna.r.baker@duke.edu). Credit: 4. Enrollment: max 2. *Talisha Ramchal, MD and GI department staff.*

**MEDICINE-437C. Rheumatology 2-Week Elective.** This is a 2-week elective for 4th year medical students who are looking to demystify the field of rheumatology. This rotation will be especially helpful for future internal medicine, family medicine, dermatology and orthopedic residents. Students will rotate on either the Rheumatology Inpatient Consult service or our ambulatory Outpatient Clinic rotation depending on interest and space/course availability. Students will take part in the division's didactic and educational activities, such as Journal Club and learning from our Divisional Grand Rounds. Other novel educational modalities such as instructional videos, podcasts and infographics will also be used. By the end of the rotation, students will learn (a) how to distinguish symptoms from autoimmune diseases from other causes (b) how to perform a detailed physical exam with emphasis on musculoskeletal exam (c) how to order and interpret common autoimmune labs (d) basics of how rheumatologists use immunosuppression to manage autoimmune disease. Students that take the 2nd year, two credit Rheumatology selective are not eligible to enroll in this course. Students must have taken Medicine 205C

in order to be eligible. Credit: 2; Maximum Enrollment: 1. The course is graded 'Credit/No Credit'. Permission of the instructor is required for enrollment. *Mithu Maheswaranathan, MD; David Caldwell, MD; Philip Chu, MD; Megan Clowse, MD; Atul Kapila, MD; David Leverenz, MD; Jennifer Rogers, MD; Ankoor Shah, MD; William St. Clair, MD; Terri Tarrant, MD; Rebecca Sadun, MD; Kai Sun, MD; Sophia Weinmann, MD*

**MEDICINE-438C. Hematology and Oncology Consults (Durham VA).** (1) Course Goals: Students learn how to interpret peripheral blood films, how to use and interpret other specialized laboratory tests (e.g., bone marrow aspirate/biopsy, serum electrophoresis, coagulation studies, tumor markers, leukemia cell markers), and how to approach the evaluation and treatment of common hematology and oncology problems (anemias, bleeding and clotting disorders, hematologic and solid tissue malignancies). (2) How Goals Are Achieved: Students receive a series of core lectures, gain familiarity with chemotherapy regimens and administration, and attend the ongoing clinical, research, and didactic divisional conferences. Clinical duties include the performance of inpatient consults under the supervision of a fellow and staff member. This course may be taken for four weeks. (3) Methods of Evaluation: The students are expected to perform and present initial evaluations of consult cases including peripheral blood film on daily rounds, and to perform limited literature searches and evaluations of chosen clinical topics. For more information, please contact Nyasia Lloyd at 684-2287 or via email at [nyasia.lloyd@duke.edu](mailto:nyasia.lloyd@duke.edu). Credit: 4. Enrollment: max 2. *Matthew Labriola, MD and hematology/oncology staff*

**MEDICINE-439C. Grief and Bereavement 101.** This course will address the need for physicians to be able to understand personal and professional grief in order to help their patients, their patients' families, and themselves. We will review the typical symptoms experienced when people suffer the loss of a friend, partner, or family member. We will emphasize the cognitive, emotional and physical effects of bereavement. We will review the typical symptoms associate with 'prolonged grief disorder', a new DSM-5-TR diagnosis. Prolonged Grief Disorder will be contrasted with the symptoms of Major Depression Disorder and PTSD. Students will consider what impact grief has on their patient care as a resident and beyond. Course meets weekly for 8 weeks; Thursday evenings. Time: 5:00pm - 7:00pm. Credit: 1 Non-Direct Patient Care Credit. Maximum Enrollment: 14; Minimum 4. *Anthony N. Galanos, MD*

**MEDICINE-440C. Clinical Infectious Diseases.** The objectives of this course are learning principles in Infectious Diseases and Antibiotic Stewardship and will be specifically achieved through the consult service cases and teaching by the Infectious Disease Fellows and Attendings. The students will be able to work-up and present cases to Fellows and Faculty and attend multiple conferences that occur each week (Journal Clubs, Grand Rounds and Case Conferences). The basic principles of Infection Management and Antibiotic Stewardship will be taught by Fellow and/or Attending Physician and this education should provide a platform to utilize during house officer training and care in most medical and surgical specialties. The teaching methods will be: case presentations, rounding daily on the Infectious Diseases Service, Didactic teaching sessions on core topic areas in Infectious Diseases, attending Clinical Microbiology Rounds, and attending Infectious Diseases Conferences. This course strives to allow the student to appreciate the clinical 'thought processes and principles around diagnosis and management of Infectious Diseases'. Grading criteria are subjective and the direct responsibility of the individual attending physician on the service. There are no objective tests to support the grade. The student is encouraged to be involved



and attempt to learn as much as possible. This enthusiasm for learning is the expectation of Fellows and Faculty for the student. The feedback for students may be gathered by direct interaction with the attending physician. NOTE: This elective may require students to complete some rotations at the VA Medical Center. Please note that you must complete the required VA paperwork no later than 30 days from the 1st day of your scheduled class in order to participate. Paperwork should be obtained from the course director or their designated staff. Permission of the Instructor is required for enrollment. Meeting Location 1st day: Workroom 6W70 in DMP. For more information and/or to obtain a permission number, please contact Haley Sullivan, haley.riddle@duke.edu. Credit: 4. Enrollment max. 4. *Micah McClain, MD/PhD*

**MEDICINE-442C. Clinical Arrhythmia Service.** Clinical Arrhythmia Service. (1) Course Goals: Primary - To provide students with an in-depth exposure to the diagnosis and management of cardiac arrhythmias, electrophysiologic studies, ablation of arrhythmias, cardiac pacemakers, and implantable defibrillators; to help students to understand the electrophysiologic events that result in arrhythmias and ECG changes. Special emphasis will be placed on ECG interpretation. This course is not designed to be a substitute for the general cardiology elective (MEDICINE 404C and 445C). Secondary - To familiarize the student with certain basic techniques of arrhythmia diagnosis; (2) How Goals Are Achieved: The student spends four weeks working on the Clinical Arrhythmia Service. The student makes rounds on the inpatient Clinical Electrophysiology Service on patients with arrhythmias. The student is encouraged to attend electrophysiologic studies and assist in the analysis of data from these studies. Attendance at electrophysiologic surgical procedures is also encouraged. The student is responsible for the work-up of patients admitted to the Arrhythmia Service as well as inpatient consultations, and plays an important role in the follow-up of these patients while they are in the hospital. The student may elect to see outpatients during Arrhythmia Clinics that meet on Monday, Tuesday, Wednesday, and Thursday in the PDC (Duke Clinic). The student assists in the evaluation of patients for permanent pacemaker and defibrillator implantation. Students are responsible for reviewing the literature on subjects related to the patients that they have seen on the clinical service. Didactic conferences are given on Monday and Wednesday mornings; (3) Methods of Evaluation: Students are evaluated on their clinical skills in taking histories, performing physical examinations, interpretation of the ECG as well as in their assessment and presentation of the patient's problem to the attending physicians. They are encouraged to present at least one patient each day. They are also assessed on their ability to read and understand the relevant literature and their ability to assume a responsible role in the care of patients on the Clinical Arrhythmia Service. Students should meet at Conference Room 7451A Duke North Hospital at 7:30 a.m. and page Dr. Grant (970-6656) if he is not there shortly after 7:30 a.m. STUDENTS MUST CHECK IN WITH DR. GRANT OR HE WILL NOT BE ABLE TO COMPLETE THE GRADE EVALUATION FOR THE COURSE. For more information, please email Dr. Grant at grant007@mc.duke.edu. Secondary Contact: Mitzi Scarlett, 919-681-3518. Credit: 4. Enrollment: max 1. *Augustus O Grant Enrollment: max 1. Augustus Grant, M.B., CH.B., PhD; Tristram Bahnson, MD; and Sana Al-Khatib, MD/MHS*

**MEDICINE-444C. Clinical Heart Failure and Cardiac Transplantation.** This course is designed to allow the student to gain a broad experience in the fields of heart failure and cardiac transplantation. The student will participate in both inpatient rounds and outpatient clinics. There will also be an opportunity to participate in the surgical management of heart failure including the use of mechanical circulatory support devices, high-risk palliative cardiac surgical procedures and cardiac transplantation. The learning

objectives of the course are supplemented by multidisciplinary rounds, cardiac transplant listing conference and cardiac pathology rounds. For more information, please contact Dr. Agarwal at richa.agarwal@duke.edu, or by phone, 919-684-3854. Secondary Contact: Patti Gentry, patti.gentry@duke.edu, or 919-684-3854. Credit: 4. Enrollment: max 2. *Richa Agarwal, MD and other Heart Failure Faculty*

**MEDICINE-445C. Consultative Cardiology.** (1) Course Goals: Primary - To refine and further develop the skills necessary for eliciting an accurate, complete CV history and for performing an accurate, complete CV physical examination: To refine student understanding of normal and pathologic cardiovascular physiology while functioning in the role of a consultant for inpatients and outpatients with various cardiovascular problems; Secondary - to develop the skills necessary to quickly and accurately interpret ECGs (both 12-lead ECGs and rhythm strips). (2) How Goals Are Achieved: Students are assigned to the consult service at either the Durham VA Center or Duke, where, in concert with the resident, fellow and senior staff attending, they evaluate the operative risk for cardiac and non-cardiac surgery as well as make decisions concerning the evaluation and treatment of patients with a wide variety of heart diseases. Students participate in reading ECGs and a core curriculum experience including individually assigned times to work with HARVEY, the cardiology patient simulator, and various computer assisted instruction programs. (3) Methods of Evaluation: Students are evaluated by the resident, fellow, and senior staff with whom they work. The evaluation form is made available at the beginning of the elective. Depending on circumstances, students may also be evaluated by written and practical examinations at the beginning and/or end of the elective. NOTE: Students enrolled in this course may be required to complete their rotation at the DVAMC. The required paperwork for the DVAMC must be completed at least 30 days prior to the first day of classes for the section/term the student is enrolled. Contact the department to obtain required paperwork. For more information, please contact Dawne Smith, 668-1524 or via email at dawne.t.smith@duke.edu. Prerequisite: none. Credit: 4. Enrollment: max. 5, (unless otherwise noted). *Nishant Shah, MD; and cardiology staff*

**MEDICINE-446C. Nephrology.** (1) Course Goals: Primary: To provide clinical experience in the diagnosis and treatment of patients with kidney diseases, fluid and electrolyte disorders, and hypertension. Secondary: To integrate physiology, immunology, pathology, and biochemistry into the evaluation and management of patients with renal disease. (2) How Goals Are Achieved: The students are integrated into the patient care team consisting of attending physician, nephrology fellows, and medical residents. They will participate in both inpatient and outpatient care of patients with a wide range of kidney diseases, fluid and electrolyte problems, and difficult to manage hypertension. Students will round on three major nephrology services: the Acute ICU Service which cares balanced exposure to all facets of nephrology including patients in the intensive care units at Duke, the Transplant Service which focuses on patients with kidney or combined kidney-pancreas transplants, and the Acute Floor Service which provides care to patient with acute kidney injury, acid base and electrolyte disturbances. The student participates in work rounds with the residents and fellows each day, daily rounds with the attending physician, and weekly nephrology conferences. These conferences include Journal Club where the latest clinical and basic science literature is reviewed, the weekly Nephrology Didactic Lecture Series focusing on pathophysiological principles of clinical nephrology, and Grand Rounds encompassing Pathology Conference, Clinical Case Conference, and seminars by fellows, faculty and/or visiting professors. This combination of broad-based clinical experience, coupled with formal didactics, provides the student with

a comprehensive educational opportunity. (3) Methods of Evaluation: Written evaluation from faculty preceptor. For more information, please contact Dr. Shweta Punj via email at [shweta.punj@duke.edu](mailto:shweta.punj@duke.edu) or by phone at 681-2298. Students should meet on the first day at Duke Hospital, Dialysis Unit, 7th floor near 7900. Unit phone: 681-7800. Please meet promptly at 8:00 a.m. Acute Fellow page: 970-7746. Credit: 4. Enrollment: max 4. *Shweta Punj, MD, and nephrology staff*

**MEDICINE-447C. Practitioners and Patients: The History of Clinical Medicine.** How has the physician-patient relationship changed over time, and what are its possibilities for the future? This class will consider these questions using a variety of sources from 20th century American medicine including medical memoirs, patient narratives, short stories, and other media. We will identify the critical historical processes (scientific, social, and cultural) that account for the structure of medical practice today, as well as examine the ethical tensions and controversies that have resulted. Priority given to MS3 students and Armstrong Humanities Scholars; class may be taken individually or as part of longitudinal MS3 medical humanities sequence. Location to report on the first day: Conference Room, Trent Center for Bioethics, Humanities, and History of Medicine, Room 108 Seeley G Mudd Building (Medical Center Library). Classes will meet on Wednesday evenings 5:15 to 7:15. Permission of instructor is required for enrollment - students must obtain permission number from the course director. Third Year students must also obtain email approval from their mentor. The email approval from the mentor should be sent to [thirdyear@dm.duke.edu](mailto:thirdyear@dm.duke.edu) and the course director ([jeffrey.baker@duke.edu](mailto:jeffrey.baker@duke.edu)). Enrollment Max.: 14; Enrollment Min.: 8. Credit: 1, Non-Direct Patient Care credit. Offered during fall section 82. *Jeffrey P. Baker, MD/PhD*

**MEDICINE-449C. Geriatric Medicine.** 1) Course Goals: Primary - To enable the student to become familiar with the principles of caring for the geriatric patient. Secondary - To familiarize the student with the physiology and diseases of aging. (2) How Goals Are Achieved: This elective is offered by the interdisciplinary faculty of the Division of Geriatric Medicine. The student works with faculty, fellows, advanced practice providers and house staff in a number of settings involved in the care of the geriatric patient. These include the Geriatric Evaluation and Treatment Clinic (Duke), Geriatrics Consultation Service (Duke University Hospital and Duke Regional Hospital), The Forest at Duke Clinic, Community Living Center (Durham VA Medical Center) and other subspecialty clinics. Principles to be stressed are biology and pathophysiology of aging, multiple clinical problems in the elderly, interdisciplinary team approach to evaluation, planning and treatment, goals of maximal functional achievement and independence for the elderly. Specific clinical problems that students encounter include dementia, delirium, polypharmacy, gait instability and falls, urinary incontinence, pressure sores, and chronic pain. The student participates actively in the work-up and management of patients inpatient extended care and outpatient settings. Familiarity with the growing literature in geriatric medicine is encouraged. The student participates in seminars, lectures and team meetings at the appropriate sites. (3) Methods of Evaluation: Evaluation is by consensus of instructors and fellows at the various training sites. It is based on discussions and presentations throughout the course period. If students are registering for the course within 15 days of starting the rotation, they must contact Dr. Serena Wong at [serena.wong@duke.edu](mailto:serena.wong@duke.edu) to notify them of their late registration and request permission to enroll. Permission will be based upon availability of clinical experiences for the team identified. No students will be accepted for registration after 4PM on the Wednesday before a Monday rotation start. As noted above, students registering within 15 days of the rotation start are expected to contact Dr. Wong immediately to notify them and request permission.

Prerequisite: Successful completion of first and second year of medical school. NOTE: Students taking this course may be required to complete rotations at the Durham VA Medical Center. Please contact the department to obtain the required paperwork. Paperwork must be completed 30 days prior to the first day of the section in which the student is enrolled. Students that have not completed the paperwork will not be allowed to work at the Durham VA Medical Center. Primary contact: Dr. Serena Wong (serena.wong@duke.edu) Credit: 4. Enrollment: max 2. *Serena Wong, DO and other staff.*

**MEDICINE-452C. Clinical Medical Ethics: What Would a Good Physician Do?** What is medicine for? What standards and norms reasonably guide physicians' actions? This course will consider rival answers to these questions, and then follow clinical ethical cases to grapple with questions about: the clinician-patient relationship, the limits of medicine, the meaning of autonomy, the place of conscience and judgment in the physician's work, the difference between an intended effect and a side effect, proportionality, sexuality and reproduction, the beginning of life, disability, and end-of-life care. Open to MS3 and MS4 students. The class may be taken individually or as part of longitudinal MS3 medical humanities sequence. Third year students must obtain approval of their research mentor in order to take the course. Email approvals should be sent to [thirdyear@dm.duke.edu](mailto:thirdyear@dm.duke.edu) and the course director. Meeting Location: Conference Room, Trent Center for Bioethics, Humanities, and History of Medicine, Room 108 Seeley G Mudd Building (Medical Center Library). To be held Monday evenings, 5:15pm, -7:15pm. Credit: 1. Enrollment Max.: 16; Enrollment Minimum: 8. *Joshua Briscoe, MD (joshua.briscoe@duke.gov); Farr A. Curlin (farr.curlin@duke.edu), MD; and Marjorie Miller (marjorie.miller@duke.edu)*

**MEDICINE-453C. Medicine, Humanities and the Arts.** How do the humanities and the arts help us understand the human experience of illness, suffering, and dying? How does skilled storytelling improve our ability to guide families facing complicated decisions and uncertainty? Can literature improve our ability to care for patients from different cultures and backgrounds? Drawing on a wide range of disciplines in the humanities, this course will emphasize concrete ways in which the humanities and the arts can teach us to be better doctors. Class may be taken individually or as part of longitudinal MS3 medical humanities sequence. Pre-requisite: Permission of the Instructor is required - Instructor must provide permission number. Third year students must also obtain email approval from their mentors in order enroll. The email approval should be sent to the [thirdyear@dm.duke.edu](mailto:thirdyear@dm.duke.edu) and to the course director. Enrollment Max.: 16; Minimum Enrollment: 8. Credit: 1. Offered spring 82; The class will meet in-person, in the Trent Center Conference Room, 108A Seeley G. Mudd Medical Center Library Building; Thursday Evenings, 5:15pm - 7:15pm. *Sneha Mantri, MD*

**MEDICINE-454C. Humanities for Health Justice.** In this elective, students will learn to apply the skills learned in medical humanities and ethics to the modern reality of patient care. The course will be a hybrid of seminar discussions and clinical/interprofessional preceptorship in the inpatient or outpatient setting. Students will create two final papers: one self-reflective essay examining professional identity and goals for residency, and other a scholarly research project, creative work, or advocacy project. Permission of instructor is required. Maximum Enrollment: 20; Minimum Enrollment: 8 Credit: 4. Course Director(s): *Sneha Mantri MD, MS; Jeff Baker MD, PhD; Farr Curlin MD; JD Ike MD MSCE; Christopher Kelsey MD; Jennifer Lawson MD MA; Nicole Larrier MD; Warren Kinghorn MD; Neil Prose MD; Brian Quaranta, MD MA; Patrick Smith PhD; Harris Solomon PhD*

## Neurology

### Sub-Internship

**NEURO-401C. Neurology Sub-Internship.** (1) Course Goals: To provide a neurological patient care experience at the intern level. Students have the opportunity to apply neurological examination skills learned in the second year to direct patient care situations. Students are exposed to a variety of neurological problems, procedures, and therapies. This course is recommended for the student interested in neurology, psychiatry, internal medicine, neurosurgery, neuropathology or ophthalmology. (2) How Goals Are Achieved: Students are assigned to a Duke Hospital inpatient neurology service for two or four weeks with an option to be assigned to the Neuroscience Intensive Care Unit for two weeks. Students attend Neuroscience Grand Rounds, Neurology Subspecialty Conferences and participate in all ward or NICU activities. Full time participation is expected. (3) Methods of Evaluation: Resident and staff physicians provide a written evaluation. For more information, please contact Chris Berry via email at [christine.berry@duke.edu](mailto:christine.berry@duke.edu) or by phone, 613-0314. Prerequisite: Neuro 205C or 402C. Permission is required. Credit: 5. Enrollment: max 2. *Jordan Mayberry, MD and Neurology faculty.*

### Clinical Science Electives

**NEURO-402C. Neurology Clerkship.** This course is restricted to those students who did not take a Neurology clerkship (Neuro 205C or 206C) in their second year. It provides the student with a firm understanding of the neurological examination, formulation of clinical neurological problems, and practice with written and oral communications in a hospital setting. The student has the opportunity to apply the neuroanatomy, neurophysiology, neurochemistry, and neuropathology learned in the first year to the evaluation and care of his or her patients. The patients are drawn from the neurology services at Duke Hospital or the Durham VA Medical Center. The students elicit a history and perform a physical examination. The student records the findings in the hospital charts and presents the findings at regular staff rounds. The student then participates with a clinical team of faculty and house officers in the hospital evaluation of the patients. The student is encouraged to participate in all diagnostic procedures such as lumbar puncture. The student has the opportunity to follow patients through neuro-radiological and neuro-surgical procedures forming part of evaluation and treatment. The specific expectations for the student are: (a) to perform and record a competent neurological and history examination on each admitted patient; (b) to be competent in the hospital management of neurological patients including diagnostic evaluations such as hematological and urine evaluations, lumbar puncture and appropriate electrical studies; (c) to assume responsibility as the primary care person for his or her patients; (d) to participate in daily work rounds with an assigned team of house officers and faculty; (e) to be sufficiently knowledgeable to participate in patient care decisions; (f) to attend faculty attending rounds and to present patients to faculty within 24 hours after admission; and (g) to participate in neurology service rounds and conferences during the course. A written evaluation is provided to the students by faculty and house staff. For more information, please call Christine Berry at 613-0314 or via email at [christine.berry@duke.edu](mailto:christine.berry@duke.edu). VA student credentialing is required prior to registration. Permission is required. Credit: 4. Enrollment: max 1. *Karissa Gable, MD and neurology faculty*



**NEURO-403C. Clinical Neurology Subspecialties.** (1) Course Goals: To provide the student clinical exposure to a specific subspecialty in neurology. (2) How Goals Are Achieved: The student focuses on one or more specific subspecialty in neurology and attends clinics for approximately 4 days per week. During that time the student participates in the clinical evaluation of patients with a member of the neurology faculty. Clinical experience in epilepsy and sleep disorders, headache/pain, memory disorders, movement disorders, and neuromuscular disorders are available. Appropriate reading material is utilized to complement the clinical experience. Neuro 205C, 206C, or 402C are prerequisites for this course. (3) Method of Evaluation: Standard written evaluation form by faculty supervisor. Approval by the course director is required in order to ensure access to the desired neurologic subspecialty. For more information, please contact Christine Berry, 613-0314 or via email, [christine.berry@duke.edu](mailto:christine.berry@duke.edu). VA student credentialing is required prior to registration. Permission is required. Credit: 1-2. Enrollment: max:1 (if participating in different subspecialties). *Karissa Gable, MD and neurology faculty*

**NEURO-404C. Consultative Neurology.** (1) Course Goals: To introduce senior medical students to the diagnostic and treatment issues encountered on the consultative neurology service. (2) How Goals Are Achieved: The student becomes part of the inpatient neurology consultation team either at Duke Hospital or the Durham VA Medical Center. This team consists of rotating neurology faculty as well as a neurology and/or medicine house officer. Consultations are performed by the student under the guidance of the house staff and then are presented to the attending on rounds. The student is responsible for performing a neurologic history and physical as well as assisting in the interpretation of all-important laboratory data. The student continues to follow the patient's course as required. The student also attends rounds when other patients are presented by the house officers. Appropriate reading material is utilized to compliment the clinical experience. Attendance at Neurology Grand Rounds and various Neurologic Subspecialty Conferences is required. (3) Method of Evaluation: Standard written evaluation by faculty supervisor with house staff input. VA student credentialing is required prior to registration. Permission is required. Credit: 4. Enrollment: max 1. For more information, please contact Christine Berry, 613-0314 or via email, [christine.berry@duke.edu](mailto:christine.berry@duke.edu). *Karissa Gable, MD and neurology faculty*

**NEURO-405C. The Neurobiology of Aging.** The proportion of older adults in the population is rapidly increasing in all parts of the world. Advances in medicine and public health, rising standards of living, and improvements in education and nutrition have lengthened the human lifespan. This elective will survey the biochemical, physiological, and behavioral changes associated with normal aging versus changes associated with pathologic conditions such as Alzheimer's disease. Course is available for MS4 students. The course will meet once a week, for two hours each week. For more information regarding the number of sessions, where to meet, etc., please contact Dr. Simon Davis ([simon.davis@duke.edu](mailto:simon.davis@duke.edu)). Students that successfully complete the course receive one Non-Direct Patient care credit (the maximum number of non-direct patient care credits that count toward MS4 graduation credits is 4). Permission of the instructor (permission number) is required for enrollment. Max students is 40; The course director will provide the permission numbers. *Simon W. Davis, PhD; Laurie Sanders, PhD; Alexandra Badea, PhD; Michael Lutz, PhD; Andrew Liu, MD/MS; Robert O'Brien, MD/PhD; and Roberto Cabeza, PhD*

## Neurosurgery

### Sub-Internship

**NEUROSUR-401C. Sub-Internship in Neurological Surgery.** This course is designed for those students with a career interest in neurological surgery. Duties include the work-up and care of inpatients, evaluation of clinic patients, assistance in the operating room, daily rounds, and approximately every 4th-night call. Students will be expected to assume intern-level responsibilities. Students round with the neurosurgical team in the mornings then participate in the OR, or attend one of the neurosurgery clinics after rounds. Students attend the Wednesday academic day neurosurgical conferences covering topics within neurosurgery, neurology, neuropathology and neuroradiology, as well as twice monthly Brain School conferences. For more information, please contact Sherolyn Patterson at 684-3053 or contact her via email, [sherolyn.patterson@duke.edu](mailto:sherolyn.patterson@duke.edu). First Day of Classes: Students are to meet the residents in the neurosurgery work room at 5:45 AM in 8th floor conference room 8A90 of Duke Central Tower (DCT). Credit: 5. Enrollment max: 5. *Steven Cook, MD; Gerald Grant, MD (Chairman), Muhammad Abd-El-Barr, MD, PhD; Deb Bhowmick, MD; Allan Friedman, MD; John Barr, MD; Alexa Bramall, MD, PhD; Patrick Codd, MD; Andrew Cutler, MD; Peter Fecci, MD, PhD; Herbert Fuchs, MD, PhD; Rory Goodwin, MD, PhD; Oren Gottfried, MD; David Hasan, MD; Stephen Harward, MD, PhD; Erik Hauck, MD; Jordan Komisarow, MD; Nandan Lad, MD, PhD; Anoop Patel, MD; John Sampson, MD, PhD; Christopher Shaffrey, MD; Brandon Smith, MD; Derek Southwell, MD, PhD; Khoi Than, MD; Dennis Turner, MD; Matthew Vestal, MD; and Ali Zomorodi, MD*

### Clinical Science Electives

**NEUROSUR-402C. Intermediate Clinical Neurosurgery.** This elective is intended as an intermediate experience that focuses on the clinical presentation of common neurosurgical disorders, radiographic evaluation, and therapeutic options including the indications and contraindications for surgical intervention. The student sees patients each morning with the neurosurgical team and chooses one or two patients to evaluate in more detail. The student attends one of the neurosurgery clinics or participates in the OR each morning after rounds, and attends the Wednesday academic day neurosurgical conferences. Most students attend Monday - Friday for half days beginning at 5:45 am. For more information, please contact Sherolyn Patterson at 684-3053 or via email, [sherolyn.patterson@duke.edu](mailto:sherolyn.patterson@duke.edu). First Day of Classes: Students are to meet the residents in the neurosurgery work room at 5:45 am, 8th floor conference room 8A90 of Duke Central Tower (DCT). Credit: 2. Enrollment max: 4. *Course Director: Steven Cook, MD; Gerald Grant, MD (Chairman), Muhammad Abd-El-Barr, MD, PhD; Deb Bhowmick, MD; Allan Friedman, MD; John Barr, MD; Alexa Bramall, MD, PhD; Patrick Codd, MD; Andrew Cutler, MD; Peter Fecci, MD, PhD; Herbert Fuchs, MD, PhD; Rory Goodwin, MD, PhD; Oren Gottfried, MD; David Hasan, MD; Stephen Harward, MD, PhD; Erik Hauck, MD; Jordan Komisarow, MD; Nandan Lad, MD, PhD; Anoop Patel, MD; John Sampson, MD, PhD; Christopher Shaffrey, MD; Brandon Smith, MD; Derek Southwell, MD, PhD; Khoi Than, MD; Dennis Turner, MD; Matthew Vestal, MD; and Ali Zomorodi, MD*

**NEUROSUR-404C. Neuro-Oncology.** This 4-week advanced rotation will allow medical students to experience Medical Neuro-Oncology. Students will rotate in the Brain Tumor Center (BTC) Clinic, located

in Cancer Center Clinic 3-1, with medical neuro-oncology faculty and interact with neuropathology faculty at the neuropathology consensus conference. Students will develop a clinical foundation in the care of brain tumor patients and will have the chance to care for patients with primary and metastatic brain malignancies during all times of the illness trajectory (at diagnosis, during treatment, stable disease, at tumor progression, and transitioning to palliative care). Attendance at weekly adult and pediatric neuro-oncology tumor board, weekly neuropathology consensus conference, monthly integrative neuro-oncology conference, and monthly research educational meeting is encouraged for all students in this rotation. For more information, please contact Mustafa Khasraw via email, [mustafa.khasraw@duke.edu](mailto:mustafa.khasraw@duke.edu) and Jung Young Kim [jungyoung.kim@duke.edu](mailto:jungyoung.kim@duke.edu) at least one week before you start your rotation. Credit: 4 credits. Enrollment max.: 1 student. Course Director: *Mustafa Khasraw, MD*; Secondary Director: *Giselle Lopez, MD/PhD*; Other faculty: *Carey Anders, MD, David Ashley MD, Annick Desjardins MD, Allan Friedman MD, Henry Friedman MD, Margaret Johnson MD, Daniel Landi MD, Kristen Batch MD, Madison Shoaf, MD, Justin Low, MD, and David Vanmeter, MD. Students will also interact with the Preston Robert Tisch Brain Tumor Center staff, Neuropathology faculty, and Neuro-Oncology Fellows*

# Obstetrics and Gynecology

## Sub-Internships

**OBGYN-405C. Gynecologic Cancer Sub-Internship.** This course presents a clinical experience in the management of patients with a gynecologic malignancy. This will include operating room, inpatient unit and clinic experiences. The student assumes the role of a sub-intern. Outpatient, inpatient, and operative exposure to these patients is extensive. The student should report to the 6300 work room at 6:00am on their first day. Credit: 5 Enrollment: max 1. *Emma Rossi, MD; Andrew Berchuck, MD; Laura Havrilesky, MD; Haley Moss MD, Angeles Alvarez Secord, MD; Emma Rossi MD; Georgia Smith; and gynecologic oncology fellows*

**OBGYN-407C. Urogynecology and Reconstructive Pelvic Surgery Sub-Internship.** For students preparing for obstetrics and gynecology, general practice, surgery, and urology. Emphasis is placed on the outpatient assessment and inpatient or ambulatory operative management of patients with acute and chronic Urogynecologic disorders including pelvic floor dysfunction, pelvic organ prolapse, urinary and fecal incontinence, and others. Students have the opportunity to work closely with faculty members in the Division of Urogynecology. Time for independent study is planned. The student is expected to utilize this time to review and present a specific clinical problem with frequent guidance and input from a member of the Urogynecology Division with similar interests. Contact: [Alison.weidner@duke.edu](mailto:Alison.weidner@duke.edu). Enrollment Max. 1; Credit: 5. Prior to the first day, the student should contact Gail McFarland, Duke Urogynecology, 5324 McFarland Drive, Suite 310, Duke Medicine Patterson Place, Durham, NC 27707; Phone: 919-401-1006. Students will be provided with orientation information and connected with the supervising resident physician prior to first day of the rotation. Faculty: *Alison Weidner, MD/MMCi; Cindy Amundsen, MD; Matthew Barber, MD/MHS; Amie Kawasaki, MD; Cassandra Kisby MD; J. Eric Jelovsek, MD/MMEd/MSDS; Nazema Siddiqui, MD/MHSc; Anthony Visco, MD; and urogynecology fellows.*

**OBGYN-409C. Benign Gynecology Subinternship.** For students preparing for obstetrics and gynecology, general practice, and surgery. Emphasis is placed on the surgical management and inpatient care patients with acute and chronic gynecologic disorders including abnormal uterine bleeding, dysmenorrhea, myomas, endometriosis, and others as well as the outpatient evaluation of these disorders. Students will work closely with faculty members in the Division of Community and Population health. Participation in the preoperative, surgical, and post-operative management of GYN patients is another critical aspect of the rotation (including emergent gynecologic care). The student will also have their own continuity GYN clinic once a week, where they will have assigned patients to see, evaluate and formulate plans for (with supervision). Students will also take call with the GYN team, during which they will cover inpatient services, emergency room and consult pager as well as participate in urgent / emergent GYN cases. Students will round with the team daily on the inpatient GYN service as well. Contact: [Nicole.kerner@duke.edu](mailto:Nicole.kerner@duke.edu). Credit: 5. Enrollment: max 1. *Nicole Kerner, MD; Beverly Gray, MD; Liz Deans, MD; Jill Hagey, MD; Mark Lachiewicz, MD; Lisa Muasher, MD; Newton Pleasant, Jr., MD; Jonas Swartz, MD; Vanisha Wilson, MD; and Megan J. Huchko, MD/MPH.*

**OBGYN-447C. Maternal-Fetal Medicine Sub-Internship.** This course is for students preparing for general practice of medicine, pediatrics, or obstetrics and gynecology. This course studies the relationship

of clinical factors during pregnancy, labor, and delivery. Emphasis is placed on abnormal conditions of pregnancy as related to the infant. Current problems in the maternal-fetal relationship are outlined. The student functions on an intern level and takes part in activities of the house staff and faculty in the inpatient and outpatient arenas. Opportunities for experience in prenatal ultrasound, diagnosis and genetic counseling available. Meet on the 5th floor of Duke Hospital, L&D workroom at 7:00AM on the rotation's first day (rounds begin at 7:10AM). Permission is required in order to enroll. Please contact Sarah Wright, [sarah.e.wright@duke.edu](mailto:sarah.e.wright@duke.edu). For more information, please contact Dr. Anne Honart at [anne.honart@duke.edu](mailto:anne.honart@duke.edu). Secondary Contact: Sarah Wright ([sarah.e.wright@duke.edu](mailto:sarah.e.wright@duke.edu)). Credit: 5. Enrollment: max 2. *Anne West Honart, MD and Brenna Hughes, MD*

## Clinical Science Electives

**OBGYN-404C. Preparation for ObGyn Residency.** This two-credit course is designed to build on the foundation laid in the Capstone Course to further prepare students specifically for OB/GYN residency, though it is open to other students as well. Emphasis is placed on knowledge/skills necessary to succeed as PGY-1. Coursework includes high yield patient management didactics, review of common obstetric and gynecologic surgeries and procedures, critical appraisal of the literature / journal club, basic surgical skills (gowning, gloving, prepping, draping, suturing, knot tying), simulation of obstetric emergencies, practice pages, and Resident-as-teacher sessions, as well as time to work directly with faculty and residents. The course will be graded Credit/No Credit. Credit 2. Enrollment max 20; Enrollment Min: 2. Students should meet at 248 Baker House on the first day. For questions about the time to meet, and/or the class dates in April, please contact Dr. Sarah Dotters-Katz ([sarah.dotters-katz@duke.edu](mailto:sarah.dotters-katz@duke.edu)). *Sarah Dotters-Katz, MD, Jennifer Howell, MD, and associated departmental faculty.* \*\*Only offered Spring 44

**OBGYN-408C. Minimally Invasive Gynecologic Surgery.** For students preparing for obstetrics and gynecology, general practice, and surgery. Emphasis is placed on the outpatient assessment and inpatient or ambulatory management of patients with acute and chronic gynecologic disorders including menorrhagia, dysmenorrhea, myomas, endometriosis, and others. Students have the opportunity to work closely with faculty members in the Division of Minimally Invasive Gynecology (MIGS). Participation in the preoperative, surgical, and post-operative management of MIGS patients is another critical aspect of the rotation. Time for independent study is planned. The student is expected to utilize this time to review and present a specific clinical problem with frequent guidance and input from a member of the MIGS Division with similar interests. Credit: 4. Enrollment: max 1. *Arleen Song, MD; Amy Broach, MD; and Craig Sobolewski, MD.* Contact: [Arleen.song@duke.edu](mailto:Arleen.song@duke.edu)

**OBGYN-410C. Complex Family Planning Elective.** During this 2-week rotation, students will be part of the complex family planning team, providing patient care in the clinic and operating room settings. Patients seen in our clinic are seeking contraception, abortion, or miscarriage care. Many of the patients seen in our clinic have complex medical histories and require expert care. Students will gain experience counseling patients about contraceptive options and will learn about abortion care in the context of North Carolina's current laws. Permission number is required for enrollment. Contact Sarah Wright ([sarah.e.wright@duke.edu](mailto:sarah.e.wright@duke.edu)) to obtain a permission number. Student should report to CFP clinic - 4200 unit - Duke North on the first day. Students will be contacted with additional information as well. Graded Credit/No Credit. Credit: 2; Maximum Enrollment: 2. *Beverly Gray, MD, and Jonas Swartz, MD/MPH*

# Ophthalmology

## Clinical Science Electives

**OPHTHAL-420C. Medical Ophthalmology.** This lecture series emphasizes common ophthalmic conditions. The ophthalmic signs and symptoms of ocular and systemic diseases are presented in a lecture series. No clinic or operating room exposure or hands on experience. Oriented for those students interested primarily in family medicine, pediatrics, internal medicine, or ophthalmology. This clinical science course can be audited. Activities include lectures, self-assessments and live discussion sessions. This course is offered during sections Spring 81; students are expected to view all pre-recorded lectures and attend at least 6 of the live discussion sessions, over the 8-week period. For more information, students may contact Dr. Rosdahl, [jullia.rosdahl@duke.edu](mailto:jullia.rosdahl@duke.edu) Credit: 1 non-direct patient care credit. Enrollment: min 8, max 20. *Jullia Rosdahl, MD/PhD*

**OPHTHAL-422C. General Ophthalmology.** A clinical preceptorship in which the student participates and observes the regular house staff activities including night call, conferences, lectures, patient care, and treatment including surgery. The use of specialized ophthalmic apparatus is emphasized. Students should report to the 2nd floor lobby of the Duke Eye Center, Hudson Building @ 8:30am to see the Medical Student Coordinator. Credit: 4. Enrollment: max 4. *Jullia Rosdahl, MD/PhD*

**OPHTHAL-425C. Pediatric Ophthalmology.** A clinical preceptorship in which the student participates in the outpatient pediatric ophthalmology and strabismus clinic. The student will encounter the more common ocular disorders of childhood including ocular motility disturbances (strabismus), amblyopia, congenital cataracts, glaucoma, and congenital genetic and metabolic disorders. In addition, adult motility disorders such as those related to childhood strabismus, stroke, thyroid eye disease and cranial nerve palsies will be encountered. The diagnosis and treatment aspects are emphasized heavily and opportunities to observe surgery are provided. The course meets by arrangement and requires a minimum of 5 days per credit. For more information, please call Brittany Jones, 919-684-4584 or email, [Brittany Jones](mailto:Brittany Jones), [brittany.jones244@duke.edu](mailto:brittany.jones244@duke.edu). Credit: 1 or 2. Enrollment: max 2 (3 with special permission). Course director: *Sharon Freedman, MD; Other participating faculty: Edward Buckley, MD; Laura Enyedi, MD; Michelle Go, MD; and Grace Prakalapakorn, MD; Nathan Cheung, OD; Adriana Ferreira, OD; Vivian Wei White, OD*



## Orthopaedics

### Sub-Internship

**ORTHO-406C. Physical Medicine and Rehabilitation.** This elective will expose the students to the specialty of physical medicine and rehabilitation (PM&R). PM&R is the medical specialty that focuses on treating patients with physical disabilities, whether it be from stroke, sports injury, spinal cord injury, traumatic brain injury, or congenital/acquired musculoskeletal conditions. PM&R physicians are known as physiatrists. Physiatrists focus on a holistic approach to healthcare, focusing on how to improve a patient's function and manage their pain. Physiatrists often lead interdisciplinary rehabilitation teams and work closely with neurologists, psychiatrists, orthopedic/neurological surgeons. The students will have the opportunities of rotating with the physiatry attendings seeing patients and performing procedures in the areas of interventional spine, MSK, pediatric physiatry, prosthetics and orthotics, physical therapy/occupational therapy, chiropractic therapy, etc. For questions or permission, please contact Dr. H Michael Guo, (h.michael.Guo@duke.edu). Permission of the instructor is required for enrollment. Time and location for initial meeting: Monday, 8am - at the Arrington Procedure Room. Credit: 2; Maximum Enrollment: 2. *H. Michael Guo, MD/PhD; Ankit Patel MD, Mike O. Boyd, DO; Gloria Liu, MD; and Eugen Lewis, DC*

### Clinical Science Electives

**ORTHO-421C. Fractures/Musculoskeletal Trauma.** Students participate in the management of orthopedic trauma at a level 1 academic trauma center ( DUH). Principles of fractures and trauma management are emphasized. Requirements are attendance daily fracture rounds M-F, assistance in the Operating Room/Emergency Department M-F, and conference attendance. Students may assist with call if they would like to. Students planning to apply for orthopaedic residency are required to complete 429C prior to taking this elective. For more information and to obtain a permission number, please contact Wendy Thompson at wendy.thompson@duke.edu or 684-3170. Permission is required. Credit: 3. Enrollment: maximum 2 students per four-week section. *Malcolm DeBaun, MD; Christian Pean, MD; Rachel Reilly, MD and Duke Orthopaedic Staff*

**ORTHO-429C. Sub-Internship in Orthopaedic Surgery.** A full educational experience in orthopaedic surgery with duties and responsibilities similar to a first year resident. Students will have the opportunity to rotate through various orthopaedic subspecialties including trauma, joint arthroplasty, sports medicine, and foot and ankle. Inpatient care, outpatient examination, operating room experience, and emergency room call are expected. Individual or group discussions are conducted each day with attending staff/residents. Conference attendance and emergency room call are required. For more information and to obtain a permission number, please contact Wendy Thompson at wendy.thompson@duke.edu or 684-3170. NOTE: This course requires that students complete one week of rotations at the VA Medical Center. Students must complete the required paperwork no later than 30 days prior to the first day of the section in which they are enrolled. Failure to do so may result in the student not being eligible to participate in the elective or sub-internship experience. Permission is required. Credit: 5. Enrollment: max 4 for 4 weeks. Summer section 41, maximum of 2 students. Interested visiting Student Coordinator,

scott.campbell@duke.edu, to inquire about the process for applying. *Kendall Bradley, MD; Robert Fitch, MD and orthopaedic staff and house staff*

**ORTHO-430C. Orthopaedic Sports Medicine.** This elective is ideal for students interested in orthopaedic surgery, but also relevant to occupational medicine, and rehabilitation. Students participate in clinic and operating room. They learn about anatomy, pathology, physical exam, and treatment of a wide range of musculoskeletal presentations in patients from young to old, including athletes. Attendance at educational conferences is required. Students are also encouraged to participate in school physicals and game coverage to gain a full experience. For more information and to obtain a permission number, please contact Wendy Thompson at [wendy.thompson@duke.edu](mailto:wendy.thompson@duke.edu) or 684-3170. Permission required. Credit: 4; Enrollment max: 1. Prerequisite: Ortho 429C. *Brian Lau; Ned Amendola, MD; Oke Anakwenze, MD; Richard Mather, MD; Kendall Bradley, MD; Liz Scott and Alison P. Toth, MD*

**ORTHO-431C. Hand/Upper Extremity Surgery.** This elective is especially suitable for students interested in orthopaedic surgery, but also relevant to plastic surgery and emergency medicine. Trauma and microvascular are emphasized. Students participate in all aspects from outpatient visits to operative procedures and inpatient rounds. They also spend time in the Hand and Upper Extremity Anatomy Lab. Attendance at educational conferences is required. For more information and to obtain a permission number, please contact Wendy Thompson at [wendy.thompson@duke.edu](mailto:wendy.thompson@duke.edu) or 684-3170. Permission Required. Credit: 4. Prerequisite: Ortho 429C. Enrollment max: 1. *David Ruch, MD; Warren Hammert, MD; Neill Li, MD; Tyler Pidgeon, MD, Christopher Klifto, MD and Marc Richard, MD*

**ORTHO-432C. Musculoskeletal Oncology.** Students gain an understanding of benign and malignant musculoskeletal neoplasms in an interdisciplinary team approach. They learn relevant anatomy, histopathology, radiology, and clinical skills related to the evaluation and management of patients from children to adults. Students participate fully in the daily activities of the orthopaedic oncology service including outpatient visits, operative procedures, and inpatient rounds. Attendance at clinical and basic science conferences is required. For more information and to obtain a permission number, please contact Wendy Thompson at [wendy.thompson@duke.edu](mailto:wendy.thompson@duke.edu) or 684-3170. Prerequisite: Ortho 429C. Permission is required. Credit: 4. Enrollment max: 1. *Brian Brigman, MD and William Eward, DVM, MD ; Julia Visgauss, MD*

**ORTHO-433C. Pediatric Orthopaedics.** Students learn about a wide range of pediatric orthopaedic conditions from birth defects to sports injuries and fractures. Emphasis is placed on understanding the pediatric skeletal anatomy, acquisition of physical examination skills, and relating pathology to structure/function relationship in the pediatric patient. Students participate fully in all aspects of care including outpatient visits, operative procedures, and inpatient rounds. Attendance at educational conferences is required. For more information and to obtain a permission number, please contact Wendy Thompson at [wendy.thompson@duke.edu](mailto:wendy.thompson@duke.edu) or 684-3170. Prerequisite: Ortho 429C. Permission is Required. Credit: 4. Enrollment max: 1. *Robert Lark, MD; Benjamin Alman, MD, and Anthony Catanzano, Jr., MD*

medical students must contact the Visiting

## Otolaryngology

### Sub-Internship

**OTOLARYN-401C. Sub-Internship in Otolaryngology Head and Neck Surgery.** This course is a full educational experience in OHNS with duties and responsibilities similar to a first-year resident. Students will experience a comprehensive survey of clinical activities, including inpatient care, assisting in the operating room, seeing consults, and emergency room call. The student participates in ward rounds and in various conferences held by the department. At the end of the subinternship, the student will give a 20 to 30-minute presentation on the topic of his/her choice at our departmental Grand Rounds Conference (usually based on a patient the student has encountered during the subinternship). Secondary Contact: Sylvia Garrett (sylvia.garrett@duke.edu) or 919-681-7388). For more information on where to report or basic questions, please refer to the OHN consult pager, 970-1320. Credits: 5. Enrollment max: 2. *Janet Lee, MD*

### Clinical Science Electives

**OTOLARYN-403C. Clinical Otolaryngology.** This 4-week course provides the senior student with a comprehensive survey of clinical otolaryngology, from oncology to pediatrics to otology to laryngology. Duties include intern-level participation in both outpatient clinic activities and inpatient care, including assisting in the operating room. The student participates in daily ward rounds and in weekly conferences held by the department. Students are expected to schedule call each week and give a 15 to 20-minute grand rounds style presentation on their selected OHNS topic at the end of the rotation. Students should report at 6:30 a.m. on 6300 for the first day of classes. This course is intended for fourth year students NOT applying for Otolaryngology residency. Secondary contact: Sylvia Garrett, (sylvia.garrett@duke.edu or 919-681-7388). For more information on where to report or basic questions, please refer to the OHN consult pager, 970-1320. Credit: 4. Enrollment: max: 2. *Janet Lee, MD*

## Pathology

### Sub-internship

**PATHOL-401C. Pathology Sub-Internship.** The Pathology Sub-Internship prepares the student for residency. Four one-week rotations include anatomic pathology, clinical pathology, and autopsy are available in discussion with the Course Director. The student assumes primary responsibility for cases, including gross examination (with assistance from resident or pathologists' assistant {PA}), microscopic preview, ordering tests in Beaker, and sign-out with the pathologist. The student is paired with a resident the first two weeks; is independent the second two weeks; and is on-call with a resident for frozen sections (1x/week x2), one weekend of grossing (Saturday 7a.m. -12 noon, and AP/CP weekend call (Friday 5 p.m.- Monday 7 a.m.)). Pre-requisite: Permission of the Instructor is required. Please contact Dr. Jennifer Crimmins (jennifer.crimmins@duke.edu) for a permission number to enroll. Credit: 5; Maximum Enrollment: 2. Jennifer Crimmins, MD and Thomas J Cummings, MD. Other faculty: *Drs. Carolyn Glass and Anand Lagoo*

### Clinical Science Electives

**PATHOL-402C. Primer of Clinical Pathology.** This is a four-week elective rotation with 1-week in each of the following disciplines of clinical pathology: transfusion medicine, molecular pathology, microbiology, and hematology/hematopathology. Students pursuing a career in pathology or desiring a greater fund of knowledge in laboratory medicine for their clinical practice are well suited for this offering. Course Requisite: Permission of the instructor is required for enrollment. Maximum Enrollment: 1 (Note: if the course is full, please feel free to contact Dr. Bandarenko. It may be possible that up to 1 additional student may be enrolled by advanced arrangement with, and approval of the course director. Students must contact the course director at least two weeks prior to the start of class for the section that they want to enroll in, if they wish to make schedule changes. Credit: 4. Nicholas Bandarenko, MD; Eric Carlsen, MD, PhD; Maureane Hoffman, MD, PhD; Nancy Henshaw, MPH, PhD, D(ABMM), Grace Lee, MD; Jessica Poisson, MD; Jadee Neff, MD; and Christine Sulym BS, CG(ASCP)

**PATHOL-423C. Autopsy Pathology.** The course is intended to introduce students to the autopsy as an investigative tool. Anatomic-clinical correlation is emphasized. Students work directly with one or more members of the pathology department. They first view autopsies and then assist in the performance of autopsies under supervision. They work up these cases with particular attention to correlations with clinical and experimental medicine, help prepare the final autopsy reports, and work essentially at the level of a house officer. Students are expected to write up one full autopsy report for an autopsy they participated in as their final project. For more information, please contact: Meridith Hennessey, M.H.S., meridith.hennessey@duke.edu. Credit: 4. Enrollment: max 2. *Carolyn Glass, MD*

**PATHOL-448C. Practical Surgical and Cytopathology.** This course is intended as an introduction to the practice of diagnostic surgical pathology. Clinical and morphologic aspects of diseases are emphasized in rotations through the different specialty services (Gastrointestinal, Gynecologic, Hematopathology, Neuropathology, Dermatopathology, etc.) Students will participate (with residents and staff) in evaluating

surgical specimens, performing microscopic interpretations (with ancillary studies), and preparing the final report. The course can be tailored to individuals planning a career in pathology or those pursuing other specialties. Rotations through the Fine Needle Aspiration and Exfoliative Cytology services can be scheduled depending on the student's interest. Please contact Dr. Jeffrey Arnold at least two weeks prior to starting the rotation at [jeffrey.arnold@duke.edu](mailto:jeffrey.arnold@duke.edu). Secondary contact (staff assistant): Maranda Burwell ([maranda.oliver@duke.edu](mailto:maranda.oliver@duke.edu)). Students meet on the first day in the pathology department at 9:00 a.m. Credits: 4. Enrollment: max 2. *Jeffrey Arnold, MD, and staff*

## Pediatrics

### Sub-Internships

**PEDS-401C. Pediatric Sub-Internship.** This course is designed to provide the student with an intensive, in-depth exposure to the diagnosis and management of pediatric patients hospitalized at Duke University Hospital. Students are responsible for admissions, management throughout the hospitalization, and discharge planning. The student functions as an intern throughout the rotation; however, notes and orders must be co-signed by the supervising resident or attending physician on the team. Students are evaluated by their residents and attending physicians. This course cannot be taken in conjunction with any other course. Students must obtain the permission of Dr. Jennifer De Coste-Lopez ([jennifer.decostelopez@duke.edu](mailto:jennifer.decostelopez@duke.edu)) to register for or to drop this course. Prior to the start of the sub-internship, the assigned inpatient team will be provided to the student as well as details regarding sub-internship orientation activities. Credit: 5. Secondary Contact: Elizabeth Futrell ([elizabeth.futrell@duke.edu](mailto:elizabeth.futrell@duke.edu)). Enrollment: Max: 4. *Jennifer De Coste-Lopez, MD; Samrat Das, MD and faculty*

**PEDS-426C. Neonatology.** Students have patient care responsibilities as well as exposure to a broad range of clinical problems in the Duke Intensive Care Nursery. The course involves direct participation in patient care under the supervision of the faculty and house staff. Emphasis is placed on the understanding of the pathophysiologic approach to the assessment and management of the critically ill neonate, with special attention to ethical and psychosocial issues surrounding their care. This is a sole-enrollment course and, as such, cannot be taken in conjunction with any other course. The exception is INTERDIS 401C - Acute Care Curriculum. Prerequisite: PEDS and contact Dr. Susan Izatt at [susan.izatt@dm.duke.edu](mailto:susan.izatt@dm.duke.edu) or by phone at 919-681-6035. Secondary contact: Dr. Kamlesh Athavale, 681-6035. Students are to meet on the first day at the Neonatal Intensive Care Unit, Duke North, 5th floor. Meet promptly at 7:30 a.m. The course director will contact the student prior to the start date to clarify meeting location, attending service, and additional information. Credit: 5. Enrollment: max 1. *Susan Izatt, MD; Kamlesh Athavale, MD; Samia Aleem, MD; Eric Benner, MD/PhD; Trevor Burt, MD; C. Michael Cotten, MD; Jeffrey Ferranti, MD/MS; Keyaria Gray, MD; Rachel Greenberg, MD; Lakshmi Katakam, MD; Sharla Rent, MD; Simon Schneider, MD; Brian Smith, MD; David Tanaka, MD; Kirstin Weimer, MD/PhD; Kevin Williams, MBBS; and Noelle Younge, MD*

### Clinical Science Electives

**PEDS-402C. Pediatric Gastroenterology.** This course offers an excellent clinical and endoscopic exposure in the field of pediatric gastroenterology with significant opportunity for one to one interaction with the pediatric GI faculty. The students spend time both in the inpatient and outpatient settings part of this elective rotation. Interested students are given more exposure to the endoscopy procedures including upper endoscopy, colonoscopy, gastrostomy tube placement and liver biopsy. For more information, please call Dr. Venkat 9196658017 or Ms. Lesley Stanford at 919-668-4390 for questions. Please report to Children's Health Center, 3rd Floor, GI clinic at Duke University Hospital (2301 Erwin Road, Durham, NC 27710) at 9 AM on the start day of the rotation where you will be given orientation and clinic



schedule. Credit: 3-4. Enrollment max: 1. Note: Students that have previously taken the two-week selective, PEDS 228C, are not eligible to enroll in PEDS 402C. *Narayanan Venkatasubramani, MD/MRCPH/MBBS; Victoria Wells, MD*

**PEDS-408C. Child Advocacy Lab.** The lack of understanding and cooperation between the fields of medicine and law lead to missed opportunities to advocate for children's rights and improved health outcomes. The Child Advocacy Lab offers a unique opportunity to join a dynamic, collaborative learning environment where medical and law students engage in team discussion and projects related to child advocacy, lessons learned from working cooperatively with other disciplines as interprofessional team members will directly translate to enhanced career skills for interdisciplinary practice. Classes will meet on Wednesday evenings, 5:30p to 7:30p. During spring 2025, classes begin on TBD. Meeting location: TBD based on COVID safety procedures. Scott Snider, LCSW, will contact all enrolled medical students the week prior to class to communicate time and location for the initial meetings. Credit: 1 Non-Direct Patient Care. Maximum enrollment: 8; Minimum Enrollment: 2. Offered during the evenings, spring 41-42. Note: If the course enrollment is at maximum capacity and you are interested in enrolling, please reach out to Dr. Narayan. *Aditee Narayan, MD/MPH; Crystal Grant, JD/MSW; and Scott Snider, LCSW*

**PEDS-409C. Pediatric Palliative Care and Quality of Life.** Pediatric Palliative Care and Quality of Life- This course provides an introduction to pediatric palliative care for 4th year medical students. The course aims to help students to hone their skill in providing patient and family centered care, in particular communication (breaking bad news) and medical decision making through observation of family meetings. This course will also provide an opportunity to learn the fundamentals of symptom management such as pain, dyspnea, nausea and constipation. It enables students to identify psychosocial and spiritual distress as well as cultural beliefs that will affect health care decisions. This 2-week (Monday-Friday), 2-credit elective provides students the opportunity to observe and work alongside pediatric palliative care practitioners in an inpatient setting. The importance of interdisciplinary teamwork will be emphasized. Students meet on the first day of class in Duke South Blue Zone Palliative Care offices at 8:45am - please attending at 970-4357 to verify meeting location. This is a 10-day rotation and students are required to be present with the team a minimum of 8 days (80% of the course) in order to make the most of the rotation and to ensure that our clinicians are able to appropriately assess and grade the learning experience. If students need to miss more than 2 days of the rotation, they will need to drop the course at least 10 days prior to the start date to allow time for other learners to have the opportunity to enroll. All absences must be approved by the course director (Dr. Megan Jordan) prior to the start of the rotation. Permission of the instructor is required. Contact Jennifer Bowen via email, ([jennifer.bowen@duke.edu](mailto:jennifer.bowen@duke.edu)), to obtain a permission number. After you enroll in the course, you must email Jennifer Bowen to request you preferred 2 weeks during the 4-week section (either the first 2 weeks or the second 2 weeks of the section). Jennifer will confirm the 2 weeks that are assigned via email. (The preferred 2 weeks will be assigned to the person that requests it first). Email the course director and Jennifer Bowen if/when you add or drop the course. For more information, contact Dr. Megan Jordan ([megan.jordan@duke.edu](mailto:megan.jordan@duke.edu)) or Jennifer Bowen ([jennifer.bowen@duke.edu](mailto:jennifer.bowen@duke.edu)). The course is offered all sections and terms but for Summer term section 43 it will only be offered the last two weeks. Pre-requisite: Permission required for enrollment. Enrollment max: 2 students per four-week block; Credit 2. *Megan Jordan, MD; Other faculty: Ashley Allen, MD; Sarah Gall, MD; Karen Jooste, MD; Amy Yu-Lin Lee, MD; and Rose Sharpe, NP*

**PEDS-411C. Pediatric Emergency Medicine.** The 4th year elective in Pediatric Emergency Medicine is designed to enhance the medical student's learning by allowing the student to develop a proficient and rational approach to the sick pediatric patient. The student will become familiar with the rapid assessment of ill patients and the development of a knowledge base and technical skills allowing for the management of pediatric emergencies. Also, the student will learn how to prioritize patient care, to recognize patients requiring emergent interventions, and to decide which patients need admission or outpatient care. By the end of the rotation, the student will be capable of (1) obtaining an appropriate problem-oriented history and physical, (2) creating a differential diagnosis based on available information, and (3) developing an appropriate management plan. Students will be contacted by Dr. O'Brian via email 1-to-2 weeks prior to the start date of their rotation with orientation materials. Prompt reply to this email is expected as time-sensitive information will be included. Students are to report to the Pediatric Emergency Department at Duke University Medical Center no later than the time of his/her first scheduled shift. Students will be expected to work four 8-hour shifts per credit. Requests to drop the course must be approved at least FOUR weeks prior to the start of the scheduled rotation. Failure to do so may result in a failing grade for the course. Please contact Dr. Rachel O'Brian, (course director), for questions. NOTE: It is sometimes possible that the course director may be able to accommodate an additional student for any single term. If the course is shown as 'full' in DukeHub and you are interested, you are encouraged to contact Dr. O'Brian (rao15@duke.edu) to inquire. Variable Credit: 3-4 credits. Enrollment max: 2. *Rachel O'Brian, MD; W. Clay Bordley, MD, MPH; Kyle Cecil, MD; Corrie Chumpitazi, MD, MS; Beth D'Amico, MD; Jennifer Dunnick, MD, MPH; James Fox, MD; Mary Grady, MD; Emily Greenwald, MD; Mia Mallory, MD, MEd; Emily Sterrett, MD, MS-CTR; Neel Subramanian, MD; and Larissa Truschel, MD, MPH*

**PEDS-412C. Introduction to Pediatric Pulmonary and Sleep Medicine.** This course provides two weeks of experience in the evaluation, diagnosis, and management of patients with respiratory and sleep related problems. Students will work closely with the pediatric pulmonary team both in the clinic and on the inpatient service. Students will have the opportunity to provide the initial assessment and management plans for patients referred for pulmonary or sleep problems. Please contact Tarig Ali Dinar, (tarig.alidinar@duke.edu) if you have questions. Pre-requisite: Permission of instructor is required. Credit: 2; Enrollment max: 1. *Tarig Ali Dinar, MD; Nour Akil, MD; Jason Lang, MD; Mai El Mallah, MD; Shatha Yousef, MD; and faculty in the Division of Pulmonary and Sleep Medicine*

**PEDS-413C. Pediatric Pulmonary and Sleep Medicine.** This course provides three to four weeks of experience in the evaluation, diagnosis, management of patients with respiratory and sleep related problems. Students will work closely with the pediatric pulmonary team both in the clinic and the inpatient services. Students will have the opportunity to provide the initial assessment and management plans for patients referred for pulmonary or sleep problems. For more information or questions, please contact Tarig Ali Dinar, (tarig.alidinar@duke.edu). Pre-requisite: Permission of the instructor is required for enrollment. Credit: 3-4; Maximum Enrollment: 1. *Tarig Ali Dinar, MD; Nour Akil, MD; Jason Lang, MD; Mai ElMallah, MD; Shatha Yousef, MD; and faculty in the Division of Pulmonary and Sleep Medicine*

**PEDS-417C. Pediatric Subspecialty Elective.** This 3 or 4-week course providing medical students with exposure to three or four subspecialties in pediatrics. Students would spend 1 week each in Pediatric Endocrinology, Child Abuse, Rheumatology, and Genetics. No more than 1 week in each subspecialty will be possible in this course. Reflective summary will be required at the conclusion of the course. Course

Requisite: Permission of course director is required for enrollment. Please reach out to Robert Benjamin, course director if interested. His email is robert.benjamin@duke.edu. Students that take Peds 416C are not eligible to take Peds 417C. Three weeks/three subspecialties = 3 credits; Four weeks/four subspecialties = 4 credits. Maximum Enrollment: 2; Credit: 3-4. *Robert Benjamin, MD; Mary Buckley, MD; Marie McDonald, MD; Scott Snider, MD; and Sarah Villarroel, MD*

**PEDS-419C. LGBTQ Healthcare.** Three-week course integrating clinical experiences spanning a large breadth of healthcare differentially accessed by LGBTQ+ individuals, such as gender-affirming hormone therapy and ancillary therapeutic services, HIV care including PREP, gender-affirming surgical services, and LGBTQ+-affirming mental health. Clinical experiences will be combined with dedicated time for didactics and scholarly activity regarding multiple facets of LGBTQ+ healthcare. Pre-requisite: Permission of the instructor is required. Please contact Dr. Blew, kathryn.blew@duke.edu, to obtain the permission number. Dr. Blew will provide location information to the students at time of enrollment. Maximum Enrollment: 1; Credit: 3. *Dr. Kathryn Blew; Drs. Deanna Adkins, Carly Kelley, Daniela Delgado, Hayley Cunningham, and Leigh Spivey-Rita; Kristen Russell, LCSW*

**PEDS-420C. Introduction to Pediatric Infectious Diseases.** This two-week course provides an exposure to the evaluation, diagnosis, differential diagnosis, management, and follow-up of patients with infectious diseases or possible potential infectious diseases. Students will work closely with the pediatric infectious diseases team on the general infectious diseases service, especially the fellow and attendings on the inpatient service; our service is primarily inpatient based but students will also join us in clinic. They will have the opportunity to provide the initial assessment and management plans for patients referred to pediatric infectious diseases. Students that elect to take this two-credit option are not eligible to enroll in PEDS 421C for the 3-4 credit option. For more information, please contact Dr. Kathleen (Kammy) McGann (Kathleen.mcgann@duke.edu). Secondary contact: Dr. Mike Smith (michael.j.smith@duke.edu; office phone: 919-684-6335). Students will meet on the first day for orientation in Dr. McGann's Office – Room 373, Hanes House (please email Dr. McGann one week before to confirm the time/location of orientation and to obtain materials). Peds ID fellow pager: 970-7420. Permission is required. Credit: 2 Enrollment Max: 3 (including 420C and selective students). *Kammy McGann, MD and division faculty*

**PEDS-421C. Pediatric Infectious Diseases - Comprehensive.** This course provides three to four weeks of experience in the evaluation, diagnosis, differential diagnosis, management, and follow-up of patients with infectious diseases or possible infectious diseases. Students will work closely with the infectious diseases team on the general infectious diseases service, especially the fellow and attendings on both the inpatient service; our service is primarily inpatient based but students will also join us in clinic. They will have the opportunity to provide the initial assessment and management plans for patients referred to pediatric infectious diseases. There may be an opportunity to spend some time with the transplant-immunocompromised host infectious diseases team, also. Students that take this course are not eligible to enroll in PEDS 420C. For more information, please contact Dr. Kammy McGann (Kathleen.mcgann@duke.edu). Secondary contact: Dr. Mike Smith (michael.j.smith@duke.edu; office phone: 919-684-6335). Students will meet on the first day for orientation in Dr. McGann's Office – Room 373, Hanes House (please email Dr. McGann one week before to confirm the time/location of orientation and to obtain materials). Peds ID fellow pager: 970-7420. Permission is required. Credit: 3-4. Enrollment Max: 3 (including 420C and selective students). *Kammy McGann, MD and division faculty*

**PEDS-424C. Introduction to Pediatric Endocrinology and Diabetes.** Students participate in the Pediatric Endocrine, Diabetes, Lipid, Gender and Insulin Resistance/Obesity Clinics and assume active roles in the evaluation and management of in-patient consultations and of in-patients admitted to the Endocrine Service. Emphasis is placed upon the evaluation of several endocrine issues, including diagnosis and management of Type 1 and Type 2 Diabetes Mellitus, growth and sexual development, gender care, lipid disorders, thyroid disorders, pituitary disorders, and calcium and vitamin D disorders. Students will complete a diabetes power point handout and pediatric endocrine handout during their rotation, which will cover core topics. Students also participate in a monthly diabetes conference and in weekly divisional conferences. Students will make a presentation to the endocrine group at the end of the rotation. Students will receive a schedule with their locations and responsibilities along with handouts the Thursday prior to their next week of the elective. They should email Dr. Robert Benjamin, course director, to confirm participation in the elective the week prior to their rotation and to let him know if they have any conflicts during their rotation. His contact email is robert.benjamin@duke.edu. Credit: 1 to 2, with 1 credit for every week of the course. Graded Credit vs No Credit. Enrollment: max 1. *Robert Benjamin, MD; Deanna Adkins, MD; Kathryn Blew, MD; Michael Freemark, MD; Elizabeth Greene, MD; Pinar Gumus, MD; Olga Gupta, MD and Laura Page, MD*

**PEDS-425C. Endocrine Disorders in Children.** Students participate in the Pediatric Endocrine, Diabetes, Lipid, Gender and Insulin Resistance/Obesity Clinics and assume active roles in the evaluation and management of in-patient consultations and of in-patients admitted to the Endocrine Service. Emphasis is placed upon the evaluation of several endocrine issues, including diagnosis and management of Type 1 and Type 2 Diabetes Mellitus, growth and sexual development, gender care, lipid disorders, thyroid disorders, pituitary disorders, and calcium and vitamin D disorders. Students will complete a diabetes powerpoint handout and pediatric endocrine handout during their rotation, which will cover core topics. Students also participate in a monthly diabetes conference and in weekly divisional conferences. Students will make a presentation to the endocrine group at the end of the rotation. Students will receive a schedule with their locations and responsibilities along with handouts the Thursday prior to their next week of the elective. They should email Dr. Robert Benjamin, course director, to confirm participation in the elective the week prior to their rotation and to let him know if they have any conflicts during their rotation. His contact email is robert.benjamin@duke.edu. Credit: 3 to 4, with 1 credit for every week of the course. Students will receive a grade for their rotation. Enrollment: max 1. *Robert Benjamin, MD; Deanna Adkins, MD; Kathryn Blew, MD; Michael Freemark, MD; Elizabeth Greene, MD; Pinar Gumus, MD; Olga Gupta, MD and Laura Page, MD*

**PEDS-426C. Neonatology.** Students have patient care responsibilities as well as exposure to a broad range of clinical problems in the Duke Intensive Care Nursery. The course involves direct participation in patient care under the supervision of the faculty and house staff. Emphasis is placed on the understanding of the pathophysiologic approach to the assessment and management of the critically ill neonate, with special attention to ethical and psychosocial issues surrounding their care. This is a sole-enrollment course and, as such, cannot be taken in conjunction with any other course. The exception is INTERDIS 401C - Acute Care Curriculum. Prerequisite: PEDS and contact Dr. Susan Izatt at susan.izatt@dm.duke.edu or by phone at 919-681-6035. Secondary contact: Dr. Kamlesh Athavale, 681-6035. Students are to meet on the first day at the Neonatal Intensive Care Unit, Duke North, 5th floor. Meet promptly at 7:30 a.m. The course director will contact the student prior to the start date to clarify meeting location, attending service, and

additional information. Credit: 5. Enrollment: max 1. *Susan Izatt, MD; Kamlesh Athavale, MD; Samia Aleem, MD; Eric Benner, MD/PhD; Trevor Burt, MD; C. Michael Cotten, MD; Jeffrey Ferranti, MD/MS; Keyaria Gray, MD; Rachel Greenberg, MD; Lakshmi Katakam, MD; Sharla Rent, MD; Simon Schneider, MD; Brian Smith, MD; David Tanaka, MD; Kirstin Weimer, MD/PhD; Kevin Williams, MBBS; and Noelle Younge, MD*

**PEDS-427C. Pediatric Hematology/Oncology.** This course includes all aspects of clinical and laboratory hematology (with a focus on sickle cell disorders) as well as the diagnostic evaluation, care, and treatment of patients with malignant diseases (childhood leukemia, lymphoma, osteosarcoma, neuroblastoma, Wilm's tumor). Emphasis will be placed on fundamental concepts of pediatric hematology/oncology. Students will spend their time in the pediatric hematology-oncology and pediatric neuro-oncology outpatient clinics evaluating new patients and seeing established patients. Students will be expected to attend divisional teaching conferences. Location: Hanes House, room 382; Box number 102382. For more information, please contact Dr. Van Mater via email at david.vanmater@duke.edu. Prerequisite: Interested students must contact the course director. For questions, please contact Amanda Coates (Amanda.coates@duke.edu) Credit: 4. Enrollment: max 1. *David Van Mater, MD; Laurie Graves MD, Dan Landi MD; Corinne Linardic MD/PhD; Avani Mangoli, Jennifer Rothman MD; Nirmish Shah MD, Kristin Schroeder MD; Jessica Sun MD; David Van Mater, MD/PhD; and Lars Wagner, MD*

**PEDS-428C. Introduction to Pediatric Rheumatology.** This course provides a two-week introduction to the evaluation, diagnosis, management, and follow-up of patients with possible rheumatologic diseases. Students will work closely with the pediatric rheumatology team, especially the fellow and attendings, both in the clinic and inpatient service. They will have the opportunity to provide the initial assessment and management plans for patients referred to pediatric rheumatology. Enrollment Max.: 2; Credit: 2. Pre-requisite: Permission of Instructor is required for Enrollment. Two-credit course is graded Credit/No Credit. Students should meet at 8:00am the first morning. They must contact Dr. Mary Buckley for the location. The class meets M-F. For more information, please contact Dr. Buckley via email, mary.buckley@duke.edu. *Mary Buckley, MD and faculty in the Division of Pediatric Rheumatology*

**PEDS-429C. Pediatric Rheumatology - Comprehensive.** This course provides three to four weeks of experience in the evaluation, diagnosis, management, and follow-up of patients with possible rheumatologic diseases. Students will work closely with the pediatric rheumatology team, especially the fellow and attendings, both in the clinic and inpatient service. They will have the opportunity to provide the initial assessment and management plans for patients referred to pediatric rheumatology. Enrollment Max: 1; Credit: 3-4. Permission of the Instructor is required for enrollment. Students should meet at 8:00am on the first day and they must contact Dr. Mary Buckley in advance to confirm meeting location. The class meets M-F. For more information, students must contact Dr. Buckley, via email, mary.buckley@duke.edu. *Mary Buckley, MD; Rebecca Sadun MD; and all faculty in the Division of Pediatric Rheumatology*

**PEDS-430C. Healthy Lifestyles Program: A Clinical, Family-Based Approach to Pediatric Obesity.** Comprehensive outpatient treatment for childhood obesity. Through observed and direct interactions with families, children and adolescents in an outpatient clinical setting, students will learn the causes and complications of pediatric obesity, and the approach to treatment, including 1) motivational interviewing,

2) intensive health behavior and lifestyle treatment through a community-partnered program, Bull City Fit ([bullcityfit.org](http://bullcityfit.org)), 3) obesity medications (such as GLP-1s), and 4) metabolic/bariatric surgery. Healthy Lifestyles is a multidisciplinary clinic which allows students to interact with and observe pediatricians, nutritionists, physical therapists and mental health providers. Students are expected to attend clinic Monday through Friday, according to a calendar which will be provided by the course director at the start of the rotation. Students will be expected to participate actively in weekly noon team learning seminar (Thursdays) and to present a topic of the student's choice near the end of the rotation. Lastly, the course director will provide students with a reading list on pertinent topics to be completed by the end of the rotation. Report to Duke Children's Primary Care Clinic, 3116 North Duke Street, first level. Students will attend and participate in at least one session of a community fitness program for children, called Bull City Fit. Students will play games, sports, and/or participate in cooking classes with families. From this experience, students will gain an understanding of community engagement, health advocacy and program planning. For questions, email the course director, Dr. Sarah Armstrong ([sarah.c.armstrong@duke.edu](mailto:sarah.c.armstrong@duke.edu)). Credit: 4. Enrollment: max. 1. *Sarah Armstrong, MD; Martha Nelson, PA-C; Katherine Caro, PA-C; Stephanie Dolan, PNP; Olga Gupta, MD; McAllister Windom, MD; Jenny Favret, MS, RD, LDN; Kristen Fulcher, RD; Heidi Pongracz, MPH, PT; Lisa Honeycutt, LPC*

**PEDS-431C. Clinical Pediatric Cardiology.** This Medical Student rotation provides a learning experience in the clinical diagnosis and management of heart disease in children. The student will have the opportunity to see and participate in the management of children referred for cardiology evaluation or follow-up via clinic or consultation. There are also experiences available observing cardiovascular procedures in the Pediatric Cardiac Catheterization and Electrophysiology Laboratory, the Pediatric Echocardiography Laboratory, and the operating room. Cardiology clinics are located in Creekstone, Greensboro, in addition to the Children's Health Center, and assignments can be expected in many of these clinics to create a diverse experience. This is primarily an outpatient rotation, but there is the option of attending inpatient rounds in the Pediatric Cardiac Intensive Care Unit if desired. Experiences in subspecialty clinics such as Pediatric Heart Failure/Transplant and Inherited Arrhythmia clinic are generally available if interested. Please note that procedural experiences are all observational due to complexity (participation is generally a Fellow level experience). Scope: history, physical examination, and special diagnostic techniques (echocardiography, electrocardiography, cardiac catheterization, and cineangiography). Students participate in outpatient clinics or procedural observational experiences five days per week as well as weekly cardiology/cardiovascular surgery conference. Prerequisite: PEDS 205C. The meeting time is 7:30am. For more information, and for the meeting location, please call the course director, Dr. Ashley Dischinger, via email, [Ashley.dischinger@duke.edu](mailto:Ashley.dischinger@duke.edu). Secondary Contact: Dana Smith, 919-668-4745, *Ashley Dischinger, MD; Lindsay Edwards, MD; Gregory Fleming, MD; Kevin Hill, MD; Salim F. Idriss, MD, PhD; Sandra Kikano, MD; Andrew Landstrom, MD, PhD; Jennifer S. Li, MD; Hillary Liken, MD; Laura Lowrey, MD; Andrew McCrary, MD; Angelo Milazzo, MD; Stephen Miller, MD; Patsy Park, MD; Neeta Sethi, MD; Erin Shea, MD; Zebulon Spector, Jason Williams, MD; McAllister Windom, MD, MPH*

**PEDS-433C. Allergy and Clinical Immunology.** Clinical outpatient experience in evaluation and management of atopic diseases including food allergy, allergic rhinitis, atopic dermatitis, asthma, and others; immunologic deficiency states, and bone marrow transplantation. Optional inpatient experience if student is interested. Scope: in-depth seminars, history, physical examination, skin testing, a variety of clinical immunologic tests, and Clinical Research Unit experience. For more information, please contact

the Program Director, Dr. Amy Stallings via email at amy.stallings@duke.edu. Please contact Dr. Stallings at least one week prior to the start of your rotation to receive instructions. Credit: 4. Enrollment: max 2. *Amy Stallings, MD; John Sleasman, MD, Niraj Patel, MD; Talal Mousallem, MD, M. and Julie Kim-Chang, MD*

**PEDS-434C. Clinical Genetics/Metabolism.** The student becomes familiar with evaluation and management of various genetic disorders including malformation syndromes and biochemical disorders. History-taking, pedigree construction and analysis, specialized aspects of the dysmorphological physical examination, diagnostic techniques, routine and specialized laboratory methods (cytogenetic, biochemical, molecular), and reference materials (texts and computer programs) are covered. Students participate in weekly teaching and clinical conferences. For more information and to obtain a schedule and directions for where to meet on the First Day of Classes please email marie.mcdonald@duke.edu. Credit: 4. Enrollment: max 2. *Marie McDonald, MD*

**PEDS-436C. Pediatric Neurology.** Students will partake in the evaluation and management of both hospitalized and ambulatory pediatric patients with neurological disorders. Emphasis is placed on the neurodevelopmental history, neurological examination, the use of laboratory tests and radiological tools and pharmacotherapy in the diagnosis and management of childhood neurological disorders. Administrative contacts: Kristin Johnson (kristin.johnson@dm.duke.edu) at 681-4658. Students should report to the PEDS Neuro office in the CHC room T0913. Please meet promptly at 8:00 a.m. Pre-requisite: students must contact Dr. Shital Patel (shital.h.patel@duke.edu) prior to enrollment. Credit: 4. Enrollment: max 2. *Shital Patel, MD*

**PEDS-440C. Advanced General Pediatrics-Intensive Care.** This advanced course is designed to allow students a four-week experience in the Pediatric Intensive Care Unit (PICU). Clinically, students will first have a several day period of shadowing non-physician ICU staff (RNs, RTs, SWs), followed by several weeks of participating in the physician team caring for PICU patients. Overnight and weekend call is not expected. Academically, students are asked to choose a project (written case presentation or critical appraisal of a published study) to be completed by the end of the rotation. Emphasis is placed on the development of the pathophysiologic approach to the diagnosis and therapy of a broad spectrum of pediatric illnesses as they present in acute care settings. Pre-requisite: PEDS 205C. Credit: 4. Enrollment: max 1. For more information, please contact Dr. Straube via email at tobias.straube@duke.edu. *Tobias Straube, MD*

**PEDS-441C. Pediatric Nephrology.** Students actively participate in assigned patient care, and prepare didactic presentations as a part of instruction. Clinical work provides the students with exposure to clinical nephrology and basic renal physiology. The course will provide experience in diagnosis, interpretations of laboratory tests, natural history, and treatment of acute and chronic disorders of the kidney in children. The student will participate in the management of fluid and electrolyte disorders in infants and children. Consultative services are provided for inpatients and outpatients from general and subspecialty disciplines in pediatrics, intensive care units, and the transplant services. For more information, please contact Dr Sheldon via email at candice.sheldon@duke.edu. Credit: 4. Enrollment: max 1. *Candice Sheldon, MD; Eileen Chambers, MD; Annabelle Chua, MD; R. Gbadegesin, MD; Reeti Kumar, MD; and Shashi Nagaraj, MD/MBBS*



**PEDS-446C. Pediatric Stem Cell Transplant Unit.** This four-week elective is designed to give medical students experience in all aspects of clinical hematopoietic stem cell transplantation including the diagnostic evaluation, care, and treatment of transplant patients. Emphasis is placed on fundamental concepts of hematopoietic stem cell transplantation. Students will accompany the inpatient team on the ward rounds for 3 weeks of the rotation with the remaining time spent in the clinic evaluating new patients and seeing established patients. Students also are expected to attend divisional teaching conferences and give informal presentations on topics in hematopoietic stem cell transplantation. Students should join the inpatient team on Monday at 8:00 a.m. on Duke Central Tower nursing unit 4A for the first day of the rotation. For more information, contact Dr. Bauchat at [andrea.bauchat@duke.edu](mailto:andrea.bauchat@duke.edu). Secondary contact: *Tim Driscoll, 6681120. Credit: 4. Enrollment: max 2. Andrea Bauchat, DO; Carmem Bonfim, MD; Paige Depriest, MD; Tim Driscoll, MD; Joanne Kurtzberg, MD; Kris Mahadeo, MD*

## Psychiatry

### Sub-Internships

**PSYCHTRY-401C. Sub-Internship in Psychiatry.** This course is an intensive clinical experience in the diagnosis and treatment of severe and incapacitating psychiatric disorders. The student is given more clinical responsibility than the comparable second year inpatient rotation. Patient care responsibilities include management of ward milieu. Treatment approaches emphasizing psychotropic medication, individual, and family psychotherapy are part of the clinical experience. Participation at patient care conferences and didactic lectures is expected. Call is taken on the weekend. For more information, please contact Dr. Julie Penzner via email at [julie.penzner@duke.edu](mailto:julie.penzner@duke.edu). Pre-requisites: instructor approval and satisfactory completion of PSC-205C (or equivalent for visiting students). Secondary contact: Cathy Lefebvre, email at [cathy.lefebvre@duke.edu](mailto:cathy.lefebvre@duke.edu) or phone at 684-2274. Credit: 5. Enrollment: max 2. *Julie Penzner, MD*

**PSYCHTRY-407C. Sub-Internship in Internal Medicine-Psychiatry.** This course is an intensive clinical experience in the diagnosis and treatment of acute co-morbid medical and psychiatric disorders requiring acute hospitalization. Students participating in this four-week elective based in Duke North Hospital are expected to function at intern-level, assuming care of a small census of complex patients. The Medicine/Psychiatry faculty on the GenMed 12 service provides direct supervision. The goal of the elective is to refine and then clinically apply basic knowledge from the fields of Internal Medicine and Psychiatry. Participation at selected case conferences and didactic sessions is expected. Students are invited to attend the intern lecture series during Psychiatry Academic Half-day and educational offerings in Internal Medicine, including Intern Report. For more information, please contact Dr. Kristen Shirey, [kristen.shirey@duke.edu](mailto:kristen.shirey@duke.edu); secondary contact: Cathy Lefebvre, [cathy.lefebvre@duke.edu](mailto:cathy.lefebvre@duke.edu). Preference is given to students considering a career in combined Medicine-Psychiatry. Prerequisite: successful completion of PSYCHTRY-205C and MEDICINE-205C. C-L MEDICINE 407C. Permission is required. Credit: 5. Enrollment: max 1. *Kristen Shirey, MD*

### Clinical Science Electives

**PSYCHTRY-403C. The Science of Wholeness: Maintaining Compassionate Care.** This course will teach medical students the skills that underly ideas of 'wholeness' and 'well-being'. It will expose students to the psychological skills that have been shown to mitigate the effects of burnout, system issues, and unprocessed stress / trauma that can accumulate during clinical training. We will cover such topics as Balint groups, appreciative inquiry, relaxation techniques, coping skills, mindfulness, values-based decision making, and working towards work life balance or integration. The 8-week class meets on Wednesdays from noon until 2pm. The course will meet in person; location to be determined. Credit: 1 (counts toward one non-direct patient care MS4 credit). Maximum enrollment: 12. Permission of the Instructor and MS3 mentor approval is Required for enrollment. This course is open to current MS3 students only. Email approval should be sent to [thirdyear@dm.duke.edu](mailto:thirdyear@dm.duke.edu) and [medreg@dm.duke.edu](mailto:medreg@dm.duke.edu). The course is graded Credit/No Credit. *Paul A. Riordan, MD; Jane Gagliardi, MD/MHS/FACP/DFAPA; and Sarah Eckstein, MD*

**PSYCHTRY-404C. Pediatric Psychiatry Consultation- Liaison Elective.** Child and adolescent psychiatrists are consulted for these and many more reasons: safety assessments, infant delirium, catatonia, adjustment to new diagnosis or chronic illness, assessments for mood or thought disorders, complex trauma, school refusal, anxiety, feeding and eating disorders, gender dysphoria, non-suicidal self-injury, post suicide attempt care, treatment non adherence, neurodevelopmental concerns, transplant evaluation, unexplained symptoms, family conflict, and management of care interfering behaviors. Students will function as residents conducting evaluations of children across the Emergency Department and medical floors. Students will collaborate with interdisciplinary teams to support teams in the care of children and adolescents with complex presentations. Course Requisite: Permission of the instructor is required. Class meets Monday-Friday Maximum Enrollment: 1; Credit: 4. *Aishwarya Rajagopalan, D.O., MHS and Rebecca Taylor, MD, MA; Emmalie Stay, MD; Sathayan Gurumurthy, MD; Ravi Anand, MD; Lauren Deavers, MD; Amanda Kimberg, MD; Andi Diaz Stransky, MD; Jason Cho, MD, Rachel Dew, MD, Kristen Winsor, MD, and Gary Maslow, MD/MPH; Sarah O'Rourke, PhD, Lauren Dilullo, PsyD, and Hendi Berrios, RN, CN IV, CPI*

**PSYCHTRY-443C. Addiction Psychiatry.** Students are based at the Durham VA Health Care System's Substance Use Disorders Clinic. Experiences include diagnostic evaluation, pharmacological management, and individual, group, and family psychotherapy. Emphasis is placed on motivational interviewing, medication-assisted treatment for alcohol- and opioid-use disorders, and understanding the relationships between addictive disorders and other psychiatric and medical conditions. Students function as members of the multidisciplinary treatment team. For more information, please contact Dr. Teresa Purdy, [teresa.purdy@va.gov](mailto:teresa.purdy@va.gov). For permission to enroll, please contact Cathy Lefebvre, ([cathy.lefebvre@duke.edu](mailto:cathy.lefebvre@duke.edu)). Credit: 4. Enrollment max 1. Prerequisites: obtain verbal or email approval from the instructor at least 4 weeks in advance and satisfactory completion of PSYCHTRY 205C. Students must complete required VA paperwork 60 days prior to the first day of their scheduled rotation. For questions about the paperwork, please contact Clyde Meador ([clyde.meador@va.gov](mailto:clyde.meador@va.gov)). *Teresa Purdy, MD; Wales George, MD*

**PSYCHTRY-445C. Consultation-Liaison Psychiatry.** The Psychiatry Consultation-Liaison Service at Duke Medical Center offers a clinical clerkship in the evaluation and management of psychiatric disorders in the medical and surgical setting. The student performs psychiatric consultations for medical and surgical services under direct supervision of residents and senior staff. Topics in psychosomatic medicine, psychopharmacology and medico-legal issues are discussed. Unique issues in psychiatric presentations of medical illness and adaptation to illness are reviewed. Students may attend an outpatient psychiatric consultation clinic in addition, upon request and pending availability. Students attend the weekly MedPsych conference and Psychiatry Academic Half-day educational offerings. Hours are generally 8am-6pm M-F. Call the consult pager to arrange meeting place on first day (970-PSYC). Students need to check with Dr. Shirey in advance via email at [kristen.shirey@duke.edu](mailto:kristen.shirey@duke.edu), or the secondary contact, Cathy Lefebvre, [cathy.lefebvre@duke.edu](mailto:cathy.lefebvre@duke.edu), to confirm the availability of this rotation. Prerequisites: instructor approval and satisfactory completion of PSC-205C. Credit: 4. Enrollment: max 1. *Kristen Shirey, MD*

## Radiation Oncology

### Clinical Science Electives

**RADONC-415C. Clinical Radiation Oncology.** Radiation oncology plays a crucial role in the management of patients with cancer. The student begins this course with lectures, individual tutorials, and audio-visual education programs to review the crucial elements of radiation biology, medical radiation physics, and dosimetry. This is followed by clinical instruction based in the ambulatory clinics of the Radiation Oncology Department as well as participation in brachytherapy procedures, care of inpatients, and new patient consultations. This course provides an introduction to the role of radiation therapy in the treatment of malignant disease. For more information, please contact Dr. Larrier at 668-7342 or via email at [larri003@mc.duke.edu](mailto:larri003@mc.duke.edu). NOTE: This elective does require student to complete rotations at the VA Medical Center. Students applying for this rotation MUST complete all VA paperwork no later than one month prior to the first day of classes. Students should report to Room 005113 [Sub-basement, White Zone, Duke Clinic] at 7:45am on the first day of the rotation. Credit: 4. Enrollment: max 2. *Nicole Larrier, MD and staff*

## Radiology

### Clinical Science Electives

**RADIOL-402C. Breast Imaging.** The 4th year elective in Breast Imaging is designed to enhance the medical student's learning by teaching a rational approach to symptoms and concerns involving the breast, and the implementation of oncologic and surgical care after biopsy proven pathology is identified. The student will be exposed to full field digital mammography, breast ultrasound, breast MRI, and image guided interventional procedures such as needle localization prior to surgical biopsy, and stereotactic, ultrasound, and MRI-guided core biopsies. Students will also observe and have opportunity to practice skills at providing compassionate patient care through patient interactions to promote breast health, during tense encounters such as breast biopsy, and potentially high-anxiety situations such as discussing potentially abnormal mammographic results. The elective can be customized based on the student's interests and plans for residency. This course would be beneficial to students interested in Radiology, Family Medicine, or Obstetrics & Gynecology. For questions please contact Dr. Kim via email at [connie.kim@dm.duke.edu](mailto:connie.kim@dm.duke.edu). Students may also contact Jen Eberhard ([Jennifer.Eberhard@duke.edu](mailto:Jennifer.Eberhard@duke.edu)). Credits: 2. Enrollment max: 2 (1 student per two-week period). This two-week course is not available to visiting students. Permission of instructor is required. *Connie Kim, MD; Derek Nguyen, MD; Jay A. Baker, MD; Sujata Ghate, MD; Lars Grimm, MD; Karen S. Johnson, MD; Eun Langman MD; and Sora Yoon, MD; Dorothy Lowell, MD; Victoria Wells, MD*

**RADIOL-404C. Vascular and Interventional Radiology.** All physicians will encounter patients who will undergo interventional procedures. This 2-week, 4th year elective in Interventional Radiology is designed to educate medical students not planning on going into a career in radiology about the most common procedures performed by IR. The students will be involved in: (1) pre-procedural patient care: focused patient assessment (in the inpatient consult setting), review of imaging, and informed consent process; (2) intra-procedural care: devices, terminology, and technique; and (3) post-procedural patient care: focused patient assessment (in the inpatient setting) and patient follow-up planning. By the end of the rotation, the student should be capable of determining whether a procedure is needed routinely, urgently, or emergently; will be able to select the most indicated procedure based on patient presentation (develop a management plan); and will be knowledgeable about pre- and post-procedure patient care. This two-week, two-credit course is not available to visiting medical students. For more information about the course or if you have registered for the course, please contact Helen Wu ([mian.wu@duke.edu](mailto:mian.wu@duke.edu)) and Jen Eberhard ([Jennifer.eberhard@duke.edu](mailto:Jennifer.eberhard@duke.edu)). Students that took Radiol 222C during the second year are not eligible to take RADIOL 404C. Credits: 2. Enrollment max: 1. *Alex J. Solomon, MD. Course Faculty: Nicholas Befera, MD; Brendan Cline, MD; David Johnson, MD; Charles Kim, MD; Johnathan G. Martin, MD; Eric Mastria, MD/PhD; Waleska Pabon-Ramos, MD/MPH; James Ronald, MD/PhD; Matthew Ramsey, MD; and Paul Suhocki, MD*

**RADIOL-405C. Fourth Year Subspecialty Radiology Rotation for the Longitudinal Integrated Curriculum.** This course completes the LIC student's final two weeks of the educational requirement in the field of radiology. The student will select a subspecialty area for study and clinical experience based on their personal interest. Choices may include imaging within the following divisions: Nuclear Medicine, Neuroradiology, and Pediatric, Abdominal, Cardiothoracic, Musculoskeletal, and Interventional Radiology.

OF NOTE: Not all divisions will have availability in all rotation blocks. Students will have two weeks of clinical experience in which they will participate in imaging examination preparation, acquisition and interpretation. Prerequisite: Permission of the instructor is required. Students must contact the coordinators to schedule their rotation and select from available division rotations. Subsequently, the student will receive instructions prior to beginning their rotation. Please contact Dr. Eun Langman at eun.langman@duke.edu. Credit: 2; Maximum enrollment: 2. Course Directors: Eun Langman, MD. Course Faculty: Pediatric Radiology: Caroline Carrico, M.D.; Abdominal Imaging: Lisa Ho, MD; Nuclear Medicine: Brandon Howard, MD; Neuroradiology: Jessica Houk, M.D. Interventional Radiology: Alex Solomon MD; Cardiothoracic imaging: Katherine Cheng, MD

**RADIOL-406C. Advanced Vascular and Interventional Radiology.** The 4 week 4th-year elective in Interventional Radiology is designed for students interested in pursuing interventional and/or diagnostic radiology and is an immersive experience with the Interventional Radiology team. Students will be involved in: (1) pre-procedural patient care: focused patient assessment (in a clinic setting, as well as in the inpatient consult setting), review of imaging, and informed consent process; (2) intra-procedural care: devices, terminology, and technique; and (3) post-procedural patient care: focused patient assessment (in the radiology recovery room, as well as in the inpatient setting), procedural documentation/reporting, and patient follow-up planning. Documentation skills will be taught. By the end of the rotation, the student should be capable of determining whether a procedure is needed routinely, urgently or emergently; will be able to select the most indicated procedure based on patient presentation (develop a management plan); and will be knowledgeable about pre- and post- procedure patient care. Pre-requisites: Permission of the instructor is required. Students that take the two-credit Vascular & Interventional Radiology (VIR) course are not eligible to take this four-credit elective. Enrollment Max. 2 with course director discretion to add a 3rd; Credit: 4. For more information about the course or if you have registered for the course, please contact Helen Wu (mian.wu@duke.edu) and Deborah Griffin (deborah.griffin@duke.edu). Students that took Radiol 222C during the second year are not eligible to take RADIOL 404C. *Alex J. Solomon, MD. Course Faculty: Nicholas Befera, MD; Brendan Cline, MD; David Johnson, MD; Charles Kim, MD; Johnathan G. Martin, MD; Eric Mastria, MD/PhD; Waleska Pabon-Ramos, MD/MPH; James Ronald, MD/PhD; Matthew Ramsey, MD; and Paul Suhocki, MD*

**RADIOL 407C. Advanced Elective in Diagnostic Radiology.** This course is targeted for medical students who are planning to pursue careers in diagnostic radiology, and it is intended as an immersive experience of what it is like to be a diagnostic radiologist. During this course, students will learn key concepts for interpreting basic radiologic examinations through a combination of self-directed learning and experiential learning. Students will shadow a radiology team during an after-hours call shift. There will be a mid-term review of concepts with the course director. The final examination will consist of independent interpretation of unknown radiology cases to simulate an emergency radiology call shift. Pre-requisite: Permission of the instructor is required for enrollment. Secondary Contact: Jen Eberhard (jennifer.eberhard@duke.edu). Offered Summer 42 and 44 and Fall 41/42. Maximum enrollment: 4; Credit: 4. *Eun Langman, MD; Lisa Ho, MD; Katherine Cheng, MD, and Jessica Houk, MD*

**RADIOL-420C. Pediatric Radiology.** RADIOL 420C. Pediatric Radiology. Pediatric radiology is unique from other radiology subspecialties in that almost all imaging modalities (plain film, ultrasound, fluoroscopy, CT, MR examinations) and organ systems (e.g. brain and spine, chest, gastrointestinal tract,

musculoskeletal system) are evaluated on a daily basis. Moreover, there are many disease processes and presentations that are unique to children. The importance of understanding normal vs abnormal development is also unique to pediatric imaging. Students can learn by observing patients, nurses, technologists and radiologists during image acquisition in pediatric fluoroscopy, ultrasound, CT and MRI as well as in the reading room observing and helping the radiology residents, fellows and attendings protocol, interpret, and discuss pediatric imaging cases. The imaging modalities used to evaluate a child's injury or illness are openly discussed, during film interpretation. Each history is reviewed, clinical question addressed, and the exams are formulated to optimize obtainable information while minimizing patient risks (e.g. radiation exposure or need for sedation). Other learning tools include computer access to teaching file cases, online teaching files, daily case conferences and subspecialty multispecialty case conferences. Medical students are encouraged to ask questions and participate in preliminary film interpretation and to dictate several live cases that will be staffed by an attending radiologist. Two cases are to be selected and briefly presented at an interesting case conference. A rubric for the case presentation expectations will be provided. This case will be added to the division's electronic teaching file. There is an extensive 'to do' list to guide study and encourage physician and patient interaction. This 'to do' list is to be completed and turned in for assessment. A copy of Pediatric Radiology by Lane Donnelly is available for loan during the rotation, assigned reading also includes some selected articles from the pediatric radiology literature. A written or oral exam may be given at the end of the course. Two days of absence are allowed. For more information, please contact Dr. Caroline Carrico at 919-684-7514 or carri026@mc.duke.edu or her assistant Candie Stewart. Course begins at 8:30 a.m. in Pediatric Radiology Division, 1st Floor Children's Health Center - 1905B. Credit: 4. Enrollment: max 1 (more than one is possible with special permission some months. Please email her at caroline.carrico@duke.edu for special requests). Pediatric Radiology Faculty include: *Caroline Carrico, MD; Charles Maxfield, MD, Michael Fadell, MD Division Chief, Donald Frush, MD, Logan Bisset, MD, Ana Gaca, MD, Joe Cao, MD*

**RADIOL-421C. Clerkship in Neuroradiology.** A specialized program of detailed instruction in neuroradiology. The program includes participation in many interdepartmental conferences and the performance and interpretation of a variety of examinations including cerebral angiography, computerized axial tomography, magnetic resonance images, and myelography. This is mainly an observational rotation. There is an optional honors presentation available for credit. Grade is based on reading room attendance and conference attendance. For more information, please contact Dr. Jessica Houk via email at jessica.houk@duke.edu. Secondary contact: Jazmin Montes (919) 684-1909 or via email at jazmin.montes@duke.edu. The student will receive a welcome email, providing details regarding an Orientation on their first day. Thereafter, the student can report to the Neuroradiology reading room DMP1W98 in Duke Medicine Pavilion. Credit: 4. Enrollment: max 2. *Jessica Houk, MD and staff*

**RADIOL-429C. PCLT - Basic Radiology Clerkship.** Fourth Year Basic Radiology Clerkship for the Primary Care Leadership Track. This course is designated for PCLT students only. This course is not open to visiting medical students. RADIOL 429C is the same course as RADIOL 205C (the second year Radiology Clerkship) but was created for the students in the Primary Care Leadership Track as PCLT students must satisfy the Radiology requirement during the fourth year. The objectives of this course are to provide an overview of the various imaging modalities of diagnostic and interventional radiology and their clinical utility. The elective consists of: (a) a high-quality lecture series (b) small group work and hands on time with imaging, reviewing preselected teaching cases, (c) participation in multispecialty conferences and grand rounds,



and (d) rotation time in various subspecialty areas in diagnostic and interventional radiology. Objectives include gaining empathy for patients undergoing imaging procedures, learning the indications/contraindications and utility of a large variety of diagnostic and therapeutic imaging procedures, and learning basic imaging findings helpful for internship. For questions, or to obtain a permission number for enrollment, please contact Jennifer Eberhard ([Jennifer.eberhard@duke.edu](mailto:Jennifer.eberhard@duke.edu)). Pre-requisite: Permission of the instructor is required for enrollment. Credit: 4; Maximum enrollment: 1. *Eun Langman, MD*

**RADIOL-437C. Musculoskeletal Imaging.** During this four-week elective, the student will be exposed to conventional x-rays in bone radiology, emergency room bone films, bone tumor films and musculoskeletal MRI. At the conclusion, the student will be able to identify fractures and have a working knowledge of musculoskeletal radiology. Several presentations will be required. Reading will be required. There is a test at rotation's end. For more information, please contact Dr. Charles Spritzer via email at [charles.spritzer@duke.edu](mailto:charles.spritzer@duke.edu). Secondary Contact: Jen Eberhard ([Jennifer.eberhard@duke.edu](mailto:Jennifer.eberhard@duke.edu)) or Deborah Griffin ([deborah.griffin@duke.edu](mailto:deborah.griffin@duke.edu)). Credit 4. Enrollment: max. 2. Charles Spritzer, MD; *Drs. Roy Colglazer, MD; Leah Waldman, MD; Jay Willhite, MD; Nick Said, MD; Emily Vinson, MD, Robert French, MD, and Erin Moran, MD*

## Study Away

### Clinical Science Electives

**STDYAWAY-410C. Extra-Mural Clinical.** Approved fourth year experience at another location.

**STDYAWAY-411C. Study Away at UNC.** Fourth year clinical elective at UNC. Upon receipt of the acceptance letter from UNC, and approval of the 4th Year Visiting Student application, the School of Medicine Registrar's Office staff will process the enrollment for study away at UNC.

**STDYAWAY-421C. Study Away at Wake Forest University School of Medicine.** Fourth year clinical elective at Wake Forest University (WFU). Upon receipt of the acceptance letter from WFU, and approval of the 4th Year Visiting Student application, the School of Medicine Registrar's Office staff will process the enrollment for study away at WFU.

**STDYAWAY-431C. Study Away at East Carolina University School of Medicine.** Fourth year clinical elective at East Carolina University School of Medicine (ECU). Upon receipt of the acceptance letter from ECU, and approval of the 4th Year Visiting Student application, the School of Medicine Registrar's Office staff will process the enrollment for study away at ECU.

**STDYAWAY-440C. Externship in Inpatient Care at Teaching Hospital Karapitiya and Mahamodara Galle in Sri Lanka.** Management of patients admitted to the Medicine/Surgical wards at Teaching Hospital Karapitiya and Teaching Hospital Mahamodara Galle in Sri Lanka combined with potential Community Medicine rotations. The student will function under the guidance of Professor Lanka Dassanayake (lanka.dasanayake@yahoo.com), Department of Gynecology and Obstetrics, Faculty of Medicine. The extern may assist with admissions, and day to day care of patients in a low resource setting. Outpatient care and community health experiences will also be possible. Student independence and initiative, as well as good interpersonal skills are important. More details of the course can be found at [www.medi.ruh.ac.lk/blog/2020/02/11/general-information/](http://www.medi.ruh.ac.lk/blog/2020/02/11/general-information/) Duke Faculty Liaison: Truls Ostbye, MD, MPH, MBA, PhD. Department of Family Medicine and Community Health/Duke Global Health Institute. Credit: 4 Max: 4

## Surgery

### Sub-Internships

**SURGERY-401C. Advanced Surgical Clerkship.** The course aims to provide an intense educational experience with graded responsibility of surgical care. The student selects a specific surgeon mentor and is expected to attend multidisciplinary conferences, e.g. gastrointestinal, vascular, transplant, endocrine, oncology, etc. The student is expected to evaluate surgical patients in an outpatient setting as well as participating in inpatient and operative patient care. Attendance at clinical research conferences, case conferences, grand rounds, and sub-specialty conferences is required. Graduated patient care responsibility under supervision is encouraged to prepare the student for future assumption of duties as a house officer able to diagnose and treat surgical diseases. Students must verify with the specific attending that he/she is available during the time the student wishes to enroll in Surgery 401C. Only one student can work with a specific attending during any one-time period. Permission of instructor is required. For information about the course please contact Dr. Brian Gilmore at [brian.gilmore@duke.edu](mailto:brian.gilmore@duke.edu). To obtain permission (and permission numbers) to enroll in the course, students should email both Ben Latta at [thomas.latta@duke.edu](mailto:thomas.latta@duke.edu) and Brian Gilmore at [brian.gilmore@duke.edu](mailto:brian.gilmore@duke.edu). Credit: 5. Enrollment: min. 1, max 8. Brian Gilmore, MD. Available mentors: *Suresh Agarwal, MD; Peter Allen, MD; Ryan Antiel, MD; Andrew Barbas, MD; Georgia Beasley, MD; Trey Blazer, MD; Dawn Coleman, MD; Thomas D'Amico, MD; Maggi DiNome, MD; Tamara Fitzgerald, MD; Joseph Fernandez-Moure, MD; Philip Fong, MD; Patrick Georgoff, MD; Jacob A. Greenberg, MD/EdM; Garth Herbert, MD; Susanna Hill, MD/MS; Sandhya Lagoo, MD/PhD; Shelley Hwang, MD/MPH; Stuart Knechtle, MD; Michael Lidsky, MD; Christopher Mantyh, MD; Allison Martin, MD/MPH; Lisa McElroy, MD/MS; Sean Montgomery, MD; Harvey Moore, MD; Daniel Nussbaum, MD; Theodore Pappas, MD; Jennifer Plichta, MD/MS; Dana Portenier, MD; Kadiyala Ravindra, MD; Henry Rice, MD; Laura Rosenberger, MD/MS; Randall Scheri, MD; Keri Seymour, DO; Kevin N. Shah, MD; Michael Stang, MD; Debra Sudan, MD; Ranjan Sudan, MD; Julie Thacker, MD; Cory Vatsaas, MD; and Sabino Zani, MD*

**SURGERY-403C. Sub-Internship Plastic Surgery Integrated Program.** This course is designed for students who have an interest in plastic surgery as a career. Duties are similar to a first year resident. This course provides the student with an in-depth overview of clinical activities, emergency room call, inpatient care and assisting in the operating room, ward rounds and conference participation. This course will also provide primary responsibility for patient care similar to an internship in a supervised fashion. This rotation will involve more time commitment than our regular rotation with additional call and work responsibilities of up to 80 hours a week. Pre-requisite: Permission is required for enrollment. For more information and/or to obtain a permission number, students must contact or Chris Duke, ([christine.g.duke@duke.edu](mailto:christine.g.duke@duke.edu)) to obtain a permission number. The course director or the clinical contact do not assign permission numbers. Clinical Contact for Students: Erica Sudyk ([erica.sudyk@duke.edu](mailto:erica.sudyk@duke.edu)) Enrollment Max: 3, unless otherwise noted. Credits: 5. *Geoffroy Sisk, MD and Erica Sudyk, PA-C*

**SURGERY-441C. Sub-Internship in Surgical Intensive Care.** This course is designed to broaden the student's knowledge and experience in dealing with a wide array of critically ill patients. Under supervision, students function as sub-interns in the Surgical Intensive Care Unit (SICU). Students are assigned their own patients and actively participate in daily rounds as part of the SICU team which includes intensivists, fellows, APPs, and residents. There

are on-line didactic lectures which are expected to be completed during the month on core aspects of critical care, as well as weekly Critical Care Grand Rounds and ICU fellow conferences. Students rotate among the different teams with typically 3 weeks of daytime service coverage and a week of overnight coverage to maximize your education and experience. Shifts are 12 hours not including sign out of the service to the oncoming team. Students will work with SICU fellows and house staff in the supervised management of critically ill patients. Four weeks are spent in the SICU at Duke University Medical Center (trauma, vascular surgery, liver-kidney-pancreas transplantation, general surgery, surgical subspecialties, MICU and NICU overflow). There is emphasis on teaching of procedures and techniques necessary for the management of all critically ill patients including hemodynamic assessment and monitoring, cardiovascular resuscitation and use of vasoactive drugs, ventilator management including ARDS, prevention and management of nosocomial infections, and nutritional support. Students are formally evaluated by the SICU house staff and the attending physician. For more information, please contact Dr. Cory Vatsaas at 684-3636 or via email, [cory.vatsaas@duke.edu](mailto:cory.vatsaas@duke.edu). Further information and direction may be provided by the SICU fellow and attending of the week. The schedule is available in the SICU or by calling the SICU at 681-2241 to find out who is rounding that week. House staff sign out begins at 6:00 a.m. in the SICU. C-L: ANESTH-441C. Credit: 5. Enrollment: max 3. *Cory J. Vatsaas, MD and staff*

## Clinical Science Electives

**SURGERY-405C. Introduction to Point of Care Ultrasound.** The 4th year elective in Point of Care Ultrasound aims to educate medical students in the core applications of bedside ultrasound. The students will be introduced to both the skills of image acquisition and image interpretation. The course will consist of: (1) education about uses and indications for point of care ultrasound with didactics; (2) hands on teaching about the acquisition of images with both simulators and live emergency department patients; (3) time dedicated to learning image interpretation of bedside ultrasounds. By the end of rotation, the student will have an introductory understanding of the indications for, skills to perform, and the clinical integration of bedside ultrasound into patient care. During spring 2024 section 42, the course will be offered in one-week periods. Students will rank their preferred weeks once enrollment has ended to determine their final schedules. No permission number is required. For more information, please contact Dr. Peethumnongsin via email, [erica.peethumnongsin@duke.edu](mailto:erica.peethumnongsin@duke.edu). Credit: 1. Enrollment: max: 9 (new max); min: 2. If the minimum number of students do not enroll in the course, that section or sections will be cancelled. Course is graded 'Credit/No Credit'. *Erica Peethumnongsin, MD, PhD; Kevin Gurysh, MD; Dr. Dan Mercader, MD; Tim Peterson, MD; Brandon Ruderman, MD; Rebecca Theophanus, MD, Shawn Sethi, DO*

**SURGERY-406C. Endocrine Surgery.** The Endocrine Surgery Elective will allow fourth year medical students to be exposed to and participate in the preoperative, intraoperative and postoperative care of endocrine surgery patients. This patient population encompasses a wide variety of benign, malignant, hormonally active, and hereditary endocrine diseases of the thyroid, parathyroid, adrenal and neuro-endocrine pancreas/systems which are evaluated in a multidisciplinary clinic along with medical endocrinology, oncology, pathology, genetics, and radiology. A working knowledge of these diseases and their multidisciplinary management is critical to a career in internal medicine or surgery. For more information about the course students should contact Dr. Randall Scheri at [r.scheri@duke.edu](mailto:r.scheri@duke.edu). Students should report to Dr. Scheri's office located at 463 Seeley Mudd Building on the first day of class. Credit: 4. Enrollment max: 2. *Randall P. Scheri, MD; Hadiza Kazaure, MD; Alberto Monreal, MD and Michael Stang, MD*

**SURGERY-409C. Surgical Technique and Review Course (STAR).** This course will provide formal instruction to prepare 4th year medical students for their upcoming duties as interns in general surgery. Students will be exposed to common diagnostic scenarios, pre- and post-operative patient care, extensive technical skill training, surgical anatomy, wound management, and how to interpret surgical literature critically. This course will also feature mock pages to challenge students to respond to common surgical scenarios. It includes two full days performing surgery in the vivarium on porcine models under resident and attending guidance. The Department of Surgery fully funds this course with housestaff and faculty serving as instructors throughout the two weeks. Students will receive a welcome email detailing the schedule and locations including where to meet on the first day of classes. The course will be offered during spring section 44. Permission is required for enrollment. The contact will be listed when the information is provided, prior to spring 2026 registration. When the contact person is updated for 2026, you will need to provide them with the following information: name, email address, cell phone number and wireless company, (e.g. Verizon, AT&T, etc.) - needed for the mock pages, and include what residency you applied for or will apply for (e.g. general surgery, urology, etc.) Credit: 2. Enrollment max.: 20. *John Migaly, MD and Elisabeth Tracy, MD*

**SURGERY-411C. Vascular & Endovascular Surgery Elective.** The elective curriculum is flexible depending on student's interest. Students will spend four weeks on the inpatient vascular surgery service at Duke Main campus. This will involve seeing inpatient consults, rounding on the inpatient service, and scrubbing into both open and endovascular cases in the operating room and cath lab. If you have questions about the elective course, please contact the course director, Dr. Adam Johnson, (adam.johnson@duke.edu). Please reach out to Lee Hines (lee.hines@duke.edu), Program Coordinator, to obtain information regarding schedule and meeting time/location. Pre-requisite: Permission of the course director is required for enrollment. The course is scheduled M-F; overnight call is optional. Maximum Enrollment: 1; Credit: 4. *Adam Johnson, MD; Chandler Long, MD; Heather Waldrop, MD; and Zach Williams*

**SURGERY-420C. General Surgical Oncology.** The course is designed for the student interested in surgical oncology. Students will typically spend 1-2 weeks on 2-3 different services. Students will rotate on services with a focus on Hepatobiliary, Pancreas, Breast, Endocrine, Colorectal, Soft Tissue Sarcoma, and Melanoma disease sites. The students are involved in patient care with a specific surgeon but, in addition, are expected to attend multidisciplinary conferences related to the disease site of interest that week. These multidisciplinary conferences involve medical and radiation oncology as well as surgical oncology. The student is also expected to evaluate surgical patients in an outpatient setting as well as participating in inpatient and operative patient care. There is no overnight call responsibility. For more information, please contact Dr. Trey Blazer via email, trey.blazer@duke.edu or contact Ben Latta at (thomas.latta@duke.edu). Permission is required. Credit: 4. Enrollment: min 1, max 4. *Trey Blazer, MD*

**SURGERY-423C. Advanced Surgery-Emphasis Cardiovascular/Thoracic.** Advanced concepts in surgery are presented in seminars and in ward, clinic, and operating room experiences. Fifty to 75 percent of the time is devoted to cardiovascular/thoracic surgery and related basic topics and the remainder to surgery generally. For more information, please contact Dr. D'Amico at 681-0491. Credit: 4. Enrollment: min 1, max 2. *Thomas D'Amico, MD; Kaitlin Bevers, Jeffrey G. Gaca, MD; Donald Glower, MD; David*

*Harpole, MD; Matthew G. Hartwig, MD; Chad Hughes, MD; Joseph Klapper, MD; Carmelo Milano, MD; Kunal Patel MD; Hai Salfity MD Jacob Schroder, MD; Betty C. Tong, MD; Brittany Zwischenberger MD*

**SURGERY-426C. Advanced Clerkship in Pediatric Surgery.** This course is designed to familiarize the student with the whole range of surgical problems in children, but with emphasis on the pathophysiology of surgical and related problems in the newborn infant and the total care of the child with a malignancy. The student is encouraged to participate fully in the patient care aspects of the service and is considered an integral part of the patient care team. At the end of the clerkship, the student is required to give a formal presentation of a pediatric surgical topic of his or her choice. The student may tailor the clerkship month to include various aspects of pediatric surgery (neonatology, cardiac surgery, etc.) depending on the interests of the student. For more information, please contact Camille Wells at 681-5077 or via email at maria.fryar@duke.edu. Credit: 4. Enrollment: max 1. *Tamara Fitzgerald, MD/PhD; Henry Rice, MD; Obinna Adibe, MD; Elisabeth Tracy, MD*

**SURGERY-443C. Trauma Service.** This course is designed to provide students interested in trauma care and emergency general surgery with further experience both in the Emergency Department and on the Inpatient Trauma Service. The course emphasizes both triage and resuscitation for major and minor emergency problems in the Emergency Department and also pre- and postoperative care on the Inpatient Trauma Service. There are opportunities to enhance the student's education by participating with the acute care surgery service, emergency general surgery consultation, and coverage of acute care general surgery operations. The student has a full-time experience by assuming duties and responsibilities similar to a sub-intern. Emphasis is placed on developing skills in the care of patients with multi-system injuries in the Emergency Department, Inpatient Service, and Operating Room. Students work in conjunction with the attending staff, residents on the Trauma Service, and our advanced practice providers. Students will typically spend three weeks covering daytime trauma service obligations and one week of night coverage to maximize your education and experience. For more information, please contact Dr. Cory Vatsaas at 684-3636 or via email at cory.vatsaas@duke.edu. Additional information can be obtained by the Trauma Chief, who is the senior resident on the service, pager 970-9995. Students should meet in the General Surgery Resident bunker/lounge on the 3rd floor DMP across from the DMP OR entrance at 6:00 a.m. on the first day of the rotation. Credit: 4. Enrollment: max 3. *Cory Vatsaas, MD; and staff*

**SURGERY-444C. Introduction to Plastic, Reconstructive and Maxillofacial Surgery.** This course is designed for students who may have a future interest in plastic surgery. Duties include the preoperative evaluation of patients, assisting in the operating room, making daily ward rounds, and participation in conferences. Permission is required for enrollment. For more information and to request a permission number to enroll, students must contact Chris Duke via email christine.g.duke@duke.edu. Clinical Contact for Students: Erica Sudyk (erica.sudyk@duke.edu). Credit: 4. Enrollment: max 2, unless otherwise noted. *Geoffroy Sisk, MD and Erica Sudyk, PA-C*

## Urology

### Sub-Internship

**UROLOGY-401C. Sub-internship in Urologic Surgery.** Students will participate in the diagnosis, management, and surgical treatment of a broad range urologic disorders in adults and children. In addition to a busy general urology practice, Duke provides state-of-the-art, specialized care for urinary stones, infertility, reconstruction, oncology and pediatric urology. Surgical experiences include open, endoscopic, robotic, microscopic, and minimally invasive surgical techniques. The goal of our sub-internship is to provide motivated students with a rich and authentic experience in the breadth and rewards of a Urology career. To that end, students will assume intern-level responsibilities to include managing inpatients, seeing clinic, actively participating in surgery, and evaluating, treating and dispositioning consult and on-call patients. Please contact Dr. Rohit Tejawani for more information. Secondary contact: Apryle Graham (apryle.graham@duke.edu). Prerequisite: Permission is required. Credit: 5. Enrollment max: 4. *Rohit Tejawani, MD and urology staff*



Summer 2025

Subject/Course Number	Instructor	Section(s)	Credit	Time	Title	Location
ANESTH 401C	Cutone, Mike	41:42: 43:44	(5 cr)	TBD	Cardiothoracic Intensive Care Sub-I	TBD
ANESTH 402C	Cutone, Mike	41:42: 43:44	(4 cr)	TBD	Cardiothoracic Intensive Care Elective	TBD
ANESTH 430C	Derrick, Bruce	41:42:43:44	(4 cr)	7:30a.m; M-F and as determined by faculty	Diving & Hyperbaric Medicine	Hyperbaric Center Library, 0588 White zone, CR II Bldg.
ANESTH 440C	Melnick, Abigail	41:42:43:44	(4 cr)	6:30:00 AM, M-F	Clinical Anesthesiology	Schedules will be emailed
ANESTH 441C	Herbert, J. Taylor	41:42:43:44	(5 cr)	6:30:00 AM, M-F	Sub-I in Surg. Intensive Care Unit (SICU)	SICU6 West DMP
ANESTH 446C	Roy, Lance	41:42:43:44	(4 cr)	8:30 am- 5:30 pm, FT	Acute & Chronic Pain Management	Contact Dr. Roy 1 week prior to start of rotation
COMMFAM 401C	Par, Emma	41:42:43:44	(5 cr)	FT	Subinternship in Family Medicine	TBD
COMMFAM 423C	Subramaniam,Satish	43	(4 cr)	FT	Occupational and Environmental Medicine	Community and Family Medicine
COMMFAM 435	Par, Emma	41:42:43:44	(4 cr)	FT	Health Promotion and Disease Prevention	TBD
DERMATOL 450C	Simkin, Daren/Fresco, Amber	41:42:43:44	(4 cr)	8:30am-6:00pm	Clinical Dermatology	Dermatology Clinic – VAMC
EMERGMED 401C	Leiman, Erin	1/1/19006:43:44 PM	(5 cr)	TBD	Emergency Medicine Sub-I	TBD
EMERGMED 405C	Leiman, Erin	42	(4 cr)	TBD	Emergency Medicine Elective	TBD
INTERDIS 400C	Staff	16	(0 cr)	TBD	Independent Study	TBD
INTERDIS 401C	McCartney, Sharon	1/1/19006:43:44 PM	(0 cr)	TBD	Acute Care Curriculum	TBD
INTERDIS 408C	Cardona, Diana	41:42:43:44	(2 cr)	TBD	Bone and Soft Tissue Experience	TBD
INTERDIS 470C	Staff	16	(0 cr)	TBD	Clinical Experience (MSTP)	TBD
INTERDIS 475C	Staff	16	(0 cr)	TBD	Clinical Experience	TBD
MEDICINE 401C	Patel-Nguyen, Sonya	41:42:43:44	(5 cr)	6:30am, 6 days/wk	Internal Medicine Sub-I (Duke-DRH)	TBD
MEDICINE 402C	Chase,Christiana	41:42:43:44	(5 cr)	FT	Med Sub-I Hem-Onc	TBD
MEDICINE 404C	Harrison, Robert	41:42:43:44	(5 cr)	FT	Cardiac Care Unit Sub-I	7400 Duke Hospital
MEDICINE 405C	Young, Katherine	41:42:43:44	(5 cr)	FT	Intensive Care medicine Sub-I (Duke)	TBD
MEDICINE 407C	Shirey,Kirsten	41:42:43:44	(5 cr)	7:30am-5:30pm	Sub-I Internal Medicine/Psychiatry	TBD
MEDICINE 414C	Waite, Kathleen	41:42:43:44	(1 cr)	FT	Intro to Outpatient Primary Care	TBD
MEDICINE 415C	Yancy, William	41:42:43:44	(4 cr)	8:00am-5:00pm, F-T	Clin. Management of Obesity	TBD
MEDICINE 423C	Maheswaranathan, Mithu	1/1/19005:42:44 PM	(4 cr)	8:00am-5:00pm, F-T	Rheumatology	34229 Duke Clinics
MEDICINE 425C	Ortel, Thomas	41:42:43:44	(4 cr)	M-F, 7:00 AM	Clinical Coagulation	TBD

Subject/Course Number	Instructor	Section(s)	Credit	Time	Title	Location
MEDICINE 427C	<i>Kayastha, Neha</i>	1/1/19005:42:44 PM	(2 cr)	TBD	Hospice and Palliative Medicine	Durham VA Medical, Center CLC
MEDICINE 428C	<i>Abouassi, Hiba</i>	1/1/19005:42:44 PM	(4 cr)	M-F	Metabolism & Endocrinology	TBD
MEDICINE 431C	<i>Lugar, Patricia</i>	41:42:43:44	(4 cr)	FT	Adult Allergy & Clinical Immunology	TBD
MEDICINE 432C	Young, Katherine	41:42:43:44	(2 cr)	FT	Intro to Duke MICU	TBD
MEDICINE 434C	<i>Labriola, Matthew</i>	41:42:43:44	(4 cr)	TBD	Outpatient Hem-Onco Duke or DVAMC	TBD
MEDICINE 435C	<i>Ramchal, Talisha</i>	41:42:43:44	(4 cr)	M-F, promptly @8:00am	Gastroenterology	Tyor Conference Room, Duke, Gastroenterology Clinical Suite, Orange Zone, room 0343
MEDICINE 437C	<i>Maheswaranathan, Mithu</i>	41:42:43:44	(2 cr)	FT(8:00am, M-F)	Rheumatology	Duke Clinics, J1
MEDICINE 438C	<i>Labriola, Matthew</i>	41:42:43:44	(4 cr)	M-F, weekends optional	Clinical Hem/Onc-Duke or DVAMC	TBD
MEDICINE 440C	<i>McClain, Micah</i>	1/1/19006:44:00 PM	(4 cr)	M-F, weekends opt.; F-T	Clinical Infectious Diseases	1558 Duke Clinics
MEDICINE 442C	<i>Grant, Augustus</i>	41:42:43:44	(4 cr)	FT	Clinical ArrhythmiaService	Students must check in with Dr. Grant
MEDICINE 444C	<i>Agarwal, Richa</i>	1/1/19005:42:00 PM	(4 cr)	FT	Heart Failure and Cardiac Transplantation	TBD
MEDICINE 445	<i>Shah, Nishant</i>	41:42:43:44	(4 cr)	FT	Consultative Cardiology	TBD
MEDICINE 446C	<i>Punj, Shweta</i>	41:42:43:44	(4 cr)	FT	Nephrology	Duke Hosptial Dialysis Unit, 7th Floor, Near 7900
MEDICINE 449C	<i>Wong, Serena</i>	41:42:43:44	(4 cr)	8:00am-5:00pm; 5 days/week	Geriatric Medicine	TBA
NEURO 401C	<i>Mayberry, Jordan</i>	41:42:43:44	(5 cr)	7:00am-6:00am, on call/faculty; 1 day in 7 off	Neurology Sub-I	TBD
NEURO 402C	<i>Gable, Karissa</i>	41:42:43:44	(4 cr)	FT	Neurology Clerkship	TBD
NEURO 403C	<i>Gable, Karissa</i>	41:42:43:44	(1-2 cr)	8:00am-5:00pm, on call per faculty	Clin Neuro Subspecialities	TBD
NEURO 404C	<i>Gable, Karissa</i>	41:42:43:44	(4 cr)		Consultative Neurology	TBD
NEUROSUR 401C	<i>Cook, Steven</i>	41: 42:43:44	(5 cr)	5:30am – 5:00pm; (call per faculty)	Sub-I in Neurological Surgery	8W40A Duke North Pavilion
NEUROSUR 402C	<i>Cook, Steven</i>	41:42:43:44	(2 cr)	5:30am	Intermediate Clinical Neurosurgery	8W40A Duke North Pavilion
NEUROSUR 404C	<i>Khasraw, Mustafa</i>	41:42:43:44	(4 cr)	TBD	Neuro-Oncology	Brain Tumor Center Clinic, Cancer Center Clinic 3-1
OBGYN 405C	Rossi, Emma	41:42:43:44	(5 cr)	6:00am –end of day; M-F, some weekends	Gynecological Cancer Sub-Internship	7700 Duke Hospital
OBGYN 407C	<i>Weidner, Alison C</i>	41:42:42:44	(5 cr)	7:00am-5:00pm, M-F, some weekends	Female Pelvic Medicine & Reconstructive Surgery Sub-I	OBGYN Clinic-Duke Clinics
OBGYN 408C	<i>Song, Arleen</i>	41:42:42:44	(4 cr)	TBD	Min. Invasive Gynecologic Surgery	TBD

Subject/Course Number	Instructor	Section(s)	Credit	Time	Title	Location
OBGYN 409C	<i>Kerner, Nicole</i>	41:42:43:44	(5 cr)	TBD	Benign Gynecology Subinternship	TBD
OBGYN 410C	<i>Gray, Beverly</i>	41:42:43:44	(2 cr)	TBD	Complex Family Planning Elective	TBD
OBGYN 447C	<i>Honart, Anne</i>	41:42:43:44	(5 cr)	7:00am-5:00pm, M-F, some weekends	Clinical Obstetrics	Labor & Delivery – Duke Hospital
OPHTHAL 422C	<i>Rosdahl, Jullia</i>	41:42:43:44	(4 cr)	8:00am, FT	General Ophthalmology	AERI Blding (behind Eye Ctr), Cube #3
OPHTHAL 425C	<i>Freedman, Sharon</i>	41:42:43:44	(1-2 cr)	7:30am-5:00pm; M-F	Pediatric Ophthalmology	TBD
ORTHO 421C	<i>DeBraun, Malcolm</i>	41:42:43:44	(3 cr)	FT	Frac & Musculoskeletal Trauma	TBD
ORTHO 429C	<i>Bradley, Kendall</i>	41:42:43:44	(5 cr)	FT	Sub-I in Orthopaedic Surgery	TBD
ORTHO 430C	<i>Lau, Brian</i>	41:42:43:44	(4 cr)	Mon-Fri, FT	Orthopaedic Sports Medicine	Finch Yeager Building – 3rd Floor
ORTHO 431C	<i>Ruch, David</i>	41:42:43:44	(4 cr)	Mon-Fri, FT	Hand//Upper Extremity Surgery	Duke Clinics and Durham VAMedical Center
ORTHO 432C	<i>Brigham, Brian</i>	41:42:43:44	(4 cr)	Mon-Fri, FT	Muskuloskeletal Oncology	1 <sup>st</sup> day – 6:00 am; Orthopaedic Replant Office; 7th Floor, HAFS Bldg.
ORTHO 433C	<i>Lark, Robert</i>	41:42:43:44	(4 cr)	Mon-Fri, FT	Pediatric Orthopaedics	1 <sup>st</sup> day – 6:00 am; Orthopaedic Replant Office; 7th Floor, HAFS Bldg.
OTOLARYN 401C	<i>Lee, Janet</i>	41:42:43:44	(5 cr)	FT	Sub-Internship in Otolaryngology Head and Neck Surgery	TBD
OTOLARYN 403C	<i>Lee, Janet</i>	41:42:43:44	(4 cr)	6:30am, FT	Clinical Otolaryngology	6300
PATHOL 401C	<i>Crimmins, Jennifer</i>	41:42:43:44	(5 cr)	TBD	Pathology Sub-Internship	TBD
PATHOL 402C	<i>Bandarenko, Nicholas</i>	41:42:43:44	(4 cr)	TBD	Primer of Clinical Pathology	TBD
PATHOL 423C	<i>Glass, Carolyn</i>	41	(4 cr)	FT	Autopsy Pathology	Autopsy Room – Davison Bldg.
PATHOL 448C	<i>Arnold, Jeffrey</i>	41:42:43:44	(4 cr)	8:00am, M-F	Practical Surgical Pathology	Davison Building, room M216A
PEDS 401C	<i>DeCoste, Jennifer</i>	41:42:43:44	(5 cr)	FT	Adv Clerkship/Pediatrics	5100 and 5300 Duke Hosp.
PEDS 402C	<i>Venkatasubramnai, Narayanan</i>	41:42:43:44	(4 cr)	TBD, M-F	Pediatric Gastroenterology	Meet 1st day at 9AM – Children’s Health Center, 3rd Fl, GI Clinic, Duke Hospital.(Students that take Peds 228C are not eligible to enroll)
PEDS 409C	<i>Jordan, Megan</i>	41:42:43:44	(2 cr)	TBD	Pediatric Intensive Care Unit	PICU 2W98c
PEDS 411C	<i>O’Brian, Rachel</i>	41:42:43:44	(3-4 cr)	Based on Shifts, FT	Pediatric Emergency Medicine	Pediatric Emergency Department
PEDS 412C	<i>Ali-Dinar, Tarig</i>	41:42:43:44	(2 cr)	8:00am – 5:00pm, FT	Introduction to Peds Pulmonary & Sleep	TBD
PEDS 413C	<i>Ali-Dinar, Tarig</i>	41:42:43:44	(3-4 cr)	8:30am – 5:00pm	Peds Pulmonary and Sleep Medicine	TBD
PEDS 417C	<i>Benjamin, Robert</i>	1/1/19007:44:00 PM	(3-4 cr)	FT	Pediatric Subspecialty Elective	TBD
PEDS 419C	<i>Blew, Kathryn</i>	1/1/19005:42:44 PM	(3 cr)	TBD	LGBTQ Healthcare	TBD

Subject/Course Number	Instructor	Section(s)	Credit	Time	Title	Location
PEDS 420C	<i>McGann, Kammy</i>	41:42:43:44	(2 cr)	8:00am	Intro Pediatric Infectious Diseases	Duke Hospital, T915 CHC
PEDS 421C	<i>McGann, Kammy</i>	41:42:43:44	(3-4 cr)	8:00am, M-F	Pediatric Infectious Diseases - Comp	Duke Hospital, T915 CHC
PEDS 424C	<i>Benjamin, Robert</i>	41:42:43:44	(2 cr)	FT	Intro Endocrine Disorders – Children	CHC Lenox Baker
PEDS 425C	<i>Benjamin, Robert</i>	41:42:43:44	(3-4 cr)	FT	Endocrine Disorders - Children	CHC Lenox Baker
PEDS 426C	Izatt, Susan	1/1/19005:42:00 PM	(5 cr)	TBD	Neonatology	TBD
PEDS 427C	<i>Van Mater, David</i>	41:42:43:44	(4 cr)	8:00am	Pediatric Hematology/Oncology	382 Hanes House
PEDS 428C	<i>Buckley, Mary</i>	41:42:43:44	(2 cr)	8:00am – 5:00pm, TBD	Intro to Peds Rheumatology	TBD
PEDS 429C	<i>Buckley, Mary</i>	41:42:43:44	(3-4 cr)	8:00am – 5:00pm	Intro to Peds Rheumatology	TBD
PEDS 431C	<i>Spector, Zebulon</i>	41:42:43:44	(4 cr)	7:00 a.m., FT	Clinical Pediatric Cardiology	7617 Duke Hospital
PEDS 433C	<i>Stallings, Amy</i>	41:42:43:44	(4 cr)	8:30am-5:00pm, M-F	Allergy and Clinical Immunology	4 <sup>th</sup> Fl., CHC – Allergy & Immunology Clinic
PEDS 434C	<i>McDonald, Marie</i>	41:42:43:44	(4 cr)	8:00am-5:00pm, M-F	Clinical Genetics-Metabolism	Genetics Clinic – CHC, Level 2, 4oom 2924A
PEDS 436C	<i>Patel, Shital</i>	41:42:43:44	(4 cr)	FT	Pediatric Neurology	Peds Neuro. T0913-CHC
PEDS 440C	<i>Straube, Tobias</i>	41:42:43:44	(4 cr)	7:30am-5:30pm, plus on-call (FT)	Pediatric Intensive Care Unit (PICU)	PICU Duke Hospital
PEDS 441C	<i>Sheldon, Candice</i>	41:42:43:44	(4 cr)	8:30am, M-F	Pediatric Nephrology	0909 CHC
PEDS 446C	<i>Bauchat, Andre</i>	1/1/19005:42:44 PM	(4 cr)	Full Time	Pediatric Stem Cell	Transplant Unit, Old Duke Credit Union, 1400 Morreene Road
PSYCHTRY 401C	<i>Penzner, Julie</i>	41:42:43:44	(5 cr)	7:30am-5:30pm, plus 1 wkend day & call can be taken every 5th night	Sub-I in Psychiatry	Duke Clinics, Williams Ward; 4th Floor Red Zone
PSYCHTRY 404C	<i>Rajagopalan, Aishwarya</i>	41:42:43:44	(4 cr)	TBD	Pediatric Psychiatry Consultation Elective	TBD
PSYCHTRY 407C	<i>Shirey, Kristen</i>	41:42:43:44	(5 cr)	7:30am-5:30pm + WE day, Call Q5 6pm - 12 am	Sub-I in Internal Med/Psychiatry	Duke Hospital
PSYCHTRY 443C	<i>Purdy, Teresa</i>	1/1/19005:44:00 PM	(4 cr)	TBD	Addiction Psychiatry	TBD
PSYCHTRY 445C	<i>Shirey, Kristen</i>	41:42:43:44	(4 cr)	7:30am-5:30pm, M-F	Consultative-Liaison Psychiatry	4098 Duke Hospital
RADIOL 402C	<i>Kim, Connie</i>	1/1/19005:42:44 PM	(2 cr)	TBD	Breast Imaging	TBD
RADIOL 404C	<i>Solomon, Alex</i>	41:42:43:44	(2 cr)	FT	Vascular Interventional Radiology	TBD
RADIOL 405C	<i>Langman, Eun</i>	41:42:43:44	(2 cr)	FT	LIC Radiology Subspeciality	TBD
RADIOL 406C	<i>Solomon, Alex</i>	41:42:43:44	(2 cr)	FT	Adv Vascu&Intervent Radiol	TBD
RADIOL 407C	<i>Langman, Eun</i>	1/1/19006:44:00 PM	(4 cr)	FT	Adv. Elective in Diagnostic Radiology	Duke North Radiology, Conference Room 1526
RADIOL 420C	<i>Carrico, Caroline</i>	41:42:43:44	(4 cr)	8:30am, FT	Pediatric Radiology	Peds Radiol Division, 1st Fl, CHC - 1905A

Subject/Course Number	Instructor	Section(s)	Credit	Time	Title	Location
RADIOL 421C	<i>Houk, Jessica</i>	41:42:43:44	(4 cr)	8:30am	Clerkship Neuroradiology	Neuroradiology CT Reading Room, DMP 1W98
RADIOL 437C	<i>Spritzer, Charles</i>	1/1/19005:42:44 PM	(4 cr)	FT	Musculoskeletal Imaging	Bone Reading Room – Duke Hospital
RADONC 415C	<i>Larrier, Nicole</i>	41:42:43:44	(4 cr)	7:45am (1 <sup>st</sup> day)	Clinical Radiation Oncology	Morris Building/RADONC, White Zone, Duke Clinics, Room 005113 - Sub-Basement
STDYAWAY 410C	<i>Staff</i>	41:42:43:44	(1-4 cr)	TBD	Extra-Mural Clinical	TBD
STDYAWAY 411C	<i>Staff</i>	41:42:43:44	(1-4 cr)	TBD	Study Away at UNC	N/A
STDYAWAY 421C	<i>Staff</i>	41:42:43:44	(1-4 cr)	TBD	Study Away at WFU	N/A
STDYAWAY 431C	<i>Staff</i>	41:42:43:44	(1-4 cr)	TBD	Study Away at ECU	N/A
STDYAWAY 440C	<i>Staff</i>	41:42:43:44	(4 cr)	TBD	Study Away at Sri Lanka	N/A
SURGERY 401C	<i>Gilmore, Brian</i>	41:42:43:44	(5 cr)	TBD	Advanced Surgical Clerkship	TBD
SURGERY 403C	<i>Sisk, Geoffroy</i>	41:42:43:44	(5 cr)	TBD	Sub-I Plastic Surgery – Integrated Prog.	TBD
SURGERY 406C	<i>Scheri, Randall</i>	41:42:43:44	(4 cr)	TBD	Endocrine Surgery	463 Seeley Mudd Bldg – Dr. Scheri's office
SURGERY 411C	<i>Johnson, Adam</i>	41:42:43:44	(4 cr)	TBD	Vascular & Endovascular Surgery	TBD
SURGERY 413C	Overbey, Douglas	41:42:43:44	(4 cr)	TBD	Advanced Surgery - Emphasis on Cardiovascular	TBD
SURGERY 420C	<i>Blazer, Trey</i>	41:42:43:44	(4 cr)	6:00am – until end of OR sched; FT plus some wkend & overnight call	General Surgical Oncology	TBD
SURGERY 423C	<i>Tong, Betty</i>	41:42:43:44	(4 cr)	FT	Advanced Surgery - Emphasis on Thoracic	TBD
SURGERY 426C	<i>Fitzgerald, Tamara</i>	41:42:43:44	(4 cr)	FT	Advanced Clerkship Pediatric Surgery	TBD
SURGERY 441C	<i>Vatsaas, Cory</i>	41:42:43:44	(5 cr)	FT	Surgical Intensive Care	2200 Duke Hospital
SURGERY 443C	<i>Vatsaas, Cory</i>	41:42:43:44	(4 cr)	<i>Daily @ 6a.m., M-F; oncall determined by faculty w/1 day in 7 off</i>	Trauma Service	General Surgery Resident; bunker/lounge, 3rd Fl, DMP
SURGERY 444C	<i>Sisk, Geoffroy</i>	41:42:43:44	(4 cr)	FT	Intro to Plastics- Recon. Max Surgery	TBD
UROLOGY 401C	<i>Tejwani, Rohit</i>	41:42:43:44	(5 cr)	FT	Sub-I in Urologic Surgery	TBD

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Subject/Course Number	Instructor	Section(s)	Credit	Time	Title	Location
ANESTH 401C	Cutone, Mike	41:42:43:44	(5 cr)	TBD	Cardiothoracic Intensive Care Sub-I	TBD
ANESTH 402C	Cutone, Mike	41:42:43:44	(4 cr)	TBD	Cardiothoracic Intensive Care Elective	TBD
ANESTH 430C	Derrick, Bruce	41:42:43:44	(4 cr)	7:30am, M-F, as determined	Diving & Hyperbaric Medicine	Hyperbaric Center Library, 0588 White Zone, CR II Bldg.
ANESTH 440C	Melnick, Abigail	41:42:43:44	(4 cr)	6:30am, M-F	Clinical Anesthesiology	Schedules will be emailed
ANESTH 441C	Herbert, J. Taylor	41:42:43:44	(5 cr)	6:30am, M-F	Sub-I in Surg.I Intens. Care Unit (SICU)	SICU- 6 West DMP
ANESTH 446C	Roy, Lance	41:42:43:44	(4 cr)	8:30a–5:30p, FT	Acute & Chronic Pain Management	Contact Dr. Roy 1 week prior to start of rotation
COMMFAM 401C	Pax,Emma	41:42:43:44	(5 cr)	M-F, FT	Sub-I in Family Medicine	Family Medicine
COMMFAM 403C	Mosu, Virgil	16	(0 cr)	TBD	Community Clinic Leadership	Holton Clinic
COMMFAM 410C	Trost, Melanie	42:43:44	(2 cr)	TBD	Travel Medicine at Duke	Student Health Ctr., Towerview Drive
COMMFAM 423C	Subramaniam, Satish	42	(4 cr)	TBD	Occupational & Enviornmental Medicine	TBD
COMMFAM 435C	Par,Emma	41:42:43:44	(4 cr)	FT	Health Promotion & Disease Prevention	Family Medicine
DERMATOL 401C	Simkin, Daren	42:43:44	(2 cr)	FT	Dermatology Inpatient Consults	TBD
DERMATOL 450C	Simkin, Daren	41:42:43:44	(4 cr)	8:30am-6:00pm	Clinical Dermatology	Dermatology Clinic - VAMC, Room C8013
EMERGMED 401C	Leiman, Erin	41	(5 cr)	TBD	Emergency Medicine Sub-Internship	TBD
EMERGMED 405C	Leiman, Erin	41:42:43:44	(4 cr)	TBD	Emergency Medicine Elective	TBD
EMERGMED 407C	Waite, Kathleen	16	(1 cr)	TBD	IPE Student Clinic	TBD
INTERDIS 400C	Staff	41:42:43:44	(0 cr)	TBA	Independent Study	N/A
INTERDIS 401C	McCartney, Sharon	41:42:43	(0 cr)	TBA	Acute Care Curriculum (taken <b>simultaneously</b> with Acute Care Course)	TBD
INTERDIS 402C	Bradley, Don	16	(0 cr)	TBA	Introduction to Healthcare Markets and Policy for Practitioners	Trent Semans Center
INTERDIS 408C	Cardona, Diana	41:42:43:44	(2 cr)	TBA	Bone and Soft Tissue	TBD
INTERDIS 450C	Fox, James	16	(0 cr)	TBA	Capstone	TBD
INTERDIS 475C	Staff	16	(0 cr)	TBA	Clinical Experience	TBD
INTERIDS 470C	Staff	16	(0 cr)	TBA	Clinical Experience (MSTP)	N/A
MEDICINE 401C	Patel-Nguyen, Sonya	41:42:00	(5 cr)	6:30am, 6 days per week, FT	Internal Med Sub-I (Duke or Duke Reg)	TBD
MEDICINE 402C	Chase,Christiana	41:42:43:44	(5 cr)	7:00am, FT	Medicine Sub-I in Hematology/Oncology	TBD
MEDICINE 404C	Harrison, Robert	41:42:43:44	(5 cr)	FT	Cardiac Care Unit Sub-I	7400 Duke Hospital

Subject/Course Number	Instructor	Section(s)	Credit	Time	Title	Location
MEDICINE 405C	<i>Young, Katherine</i>	41:42:43:44	(5 cr)	FT	Intensive Care Med Sub-I at Duke	MICU – Duke Hospital
MEDICINE 407C	<i>Shirey, Kristen</i>	41:42:43:44	(5 cr)	7:30am-5:30pm; M-F, plus call	Sub-I in Internal Medicine/Psychiatry	TBD
MEDICINE 412C	<i>Bernal, Talia</i>	43:44:00	(2 cr)	TBD	Hospital Medicine	TBD
MEDICINE 414C	<i>Waite, Kathleen</i>	41:42:43:44	(1-2 cr)	TBD	Intro to Outpatient Primary Care	Students must contact Dr. Waite for Schedule
MEDICINE 415C	<i>Yancy, William</i>	41:42:43:44	(4 cr)	8:00am-5:00pm (or until clinic is closed)	Clinical Management of Obesity	TBD
MEDICINE 423C	<i>Maheswaranathan, Mithu</i>	41:42:43:44	(4 cr)	8:00am-5:00p	Rheumatology	34229 Duke Clinics
MEDICINE 425C	<i>Ortel, Thomas</i>	41:42:43:44	(4 cr)	7:00am, M-F	Clinical Coagulation	0546 Hospital
MEDICINE 427C	<i>Kayastha, Neha</i>	41:42:43:44	(2 cr)	TBD	Hospice and Palliative Medicine	DVAMC- CLC
MEDICINE 428C	<i>Abouassi, Hiba</i>	41:42:43:44	(4 cr)	8:30am-5:00pm; M-F, FT	Metabolism & Endocrinology	TBD
MEDICINE 431C	<i>Lugar, Patricia</i>	41:42:43:44	(4 cr)	M-F; FT	Adult Allergy & Clinical Immunology	TBD
MEDICINE 432C	<i>Young, Katherine</i>	43:44:00	(2 cr)	7:30am; FT	Introduction to the MICU	<i>DMP – 6E, outside of MICU bed 16</i>
MEDICINE 434C	<i>Labriola, Matthew</i>	41:42:43:44	(4 cr)	TBD	Outpatient Hematology- Duke or DVAMC	TBD
MEDICINE 435C	<i>Ramchal, Talisha</i>	41:42:43:44	(4 cr)	promptly @8:00am-6:00pm; M-F	Gastroenterology	Gastroenterology Clinical Suite, Tyor Conference Room, Duke; Orange zone, rm 0343
MEDICINE 437C	<i>Maheswaranathan, Mithu</i>	41:42:43:44	(2 cr)	TBD	Rheumatology	TBD
MEDICINE 438C	<i>Labriola, Matthew</i>	41:42:43:44	(4 cr)	M-F, weekends optional	Clin Hem/Oncology- Duke or DVAMC	Duke or DMVAMC
MEDICINE 440C	<i>McClain, Micah</i>	41:42:43:44	(4 cr)	M-F; weekends optional	Clin Infectious Diseases	1558 Duke Hospital
MEDICINE 442C	<i>Grant, Augustus</i>	41:42:43:44	(4 cr)	FT	Clin Arrhythmia Service	Students must check in with Dr. Grant on 1st day
MEDICINE 444C	<i>Agarwal, Richa</i>	41:42:43:44	(4 cr)	FT	Heart Failure & Transplants	TBD
MEDICINE 445C	<i>Shah, Nishant</i>	41:42:43:44	(4 cr)	FT	Consultative Cardiology	TBD
MEDICINE 446C	<i>Punj, Shweta</i>	41:42:43:44	(4 cr)	FT	Nephrology	Duke Hospital Dialysis Unit; 7th Floor, Near 7900
MEDICINE 447C	<i>Baker, Jeffrey</i>	82	(1 cr)	5:15pm – 7:15pm	Practitioners & Patients: The History of Clinical Medicine	Conf. Room, Trent Center for Bioethics, Humanities & History of Med. Room 108, Seeley Mudd Building
MEDICINE 449C	<i>Wong, Serena</i>	41:42:43:44	(4 cr)	8:00am-5:00pm; 5 days/week	Geriatric Medicine	TBD
NEURO 401C	<i>Mayberry, Jordan</i>	41:42:00	(5 cr)	7:00a-6:00p; 1 day in 7 off; on-call per faculty	Neurology Sub-I	122 Baker House



Subject/Course Number	Instructor	Section(s)	Credit	Time	Title	Location
NEURO 402C	Gable, Karissa	41:42:43:44	(4 cr)	TBD	Neurology Clerkship	DVAMC- VA credentialing required prior to enrollment
NEURO 403C	Gable, Karissa	41:42:43:44	(1-2 cr)	8:00a-5:00p; M-F on-call/faculty	Clinical Neuro Subspecialties	TBD
NEURO 404C	Gable, Karissa	41:42:43:44	(4 cr)	8:00am-5:00pm, M-F	Consultative Neurology	TBD
NEUROSUR 401C	Cook, Steven	41:42:43:44	(5 cr)	5:30am - 5:00pm daily +call/faculty, approx. 2 times/week	Sub-I in Neurological Surgery	8W40A Duke North Pavilion
NEUROSUR 402C	Cook, Steven	42:43:44	(2 cr)	5:30am – 5:00pm; one day in 7 off; FT	Intermedical Clinical Neurosurgery	8W40A Duke North Pavilion
NEUROSUR 403C	Khasraw, Mustafa	41:42:43	(4 cr)	TBD	Neuro-Oncology	TBD
OBGYN 405C	Rossi, Emma	41	(5 cr)	6:00am - until end of day; M-F +some weekends	Gynecological Cancer Sub-Internship	TBD
OBGYN 407C	Weidner,Alison	41:43:44	(5 cr)	7:00am - 5:00pm; M-F; some weekends	Female Pelvic Medicine & Reconstructive Surgery Sub-I	OBGYN Clinic–Duke Clinics
OBGYN 408C	Song, Arleen	41:42:00	(4 cr)	TBD	Min. Invasive Gynecologic Surgery	TBD
OBGYN 409C	Kerner,Nicole	41:42:43:44	(5 cr)	TBD	Benign Gynecology Sub-Internship	TBD
OBGYN 410C	Gray, Beverly	41:42:43:44	(2 cr)	TBD	Complex Family Planning Elective	CFP Clinic, 4200 unit, Duke North
OBGYN 447C	Honart, Anne	41:42:43:44	(5 cr)	7:00am-5:00pm; M-F and some weekends	Clinical Obstetrics	5th Floor –Duke Hospital; L&D Workroom
OPHTHAL 422C	Rosdahl, Jullia	41:42:43:44	(4 cr)	8:00am; FT	General Ophthalmology	AERI Bldg. (behind Eye Ctr.); Cube #3
OPHTHAL 425C	Freedman, Sharon	41:42:43:44	(1-2 cr)	7:30am-5:00pm, M-F	Pediatric Ophthalmology	TBD
ORTHO 421C	DeBraun, Malcolm	41:42:43:44	(3 cr)	FT	Frac & Musculoskeletal Trauma	TBD
ORTHO 429C	Bradley,Kendall	41:42:43:44	(5 cr)	FT	Sub-I in Orthopaedic Surgery	TBD
ORTHO 430C	Lau, Brian	41:42:43:44	(4 cr)	Mon-Fri, FT	Orthopaedic Sports Medicine	Finch Yeager Building – 3rd Floor
ORTHO 431C	Ruch, David	41:42:43:44	(4 cr)	Mon-Fri, FT	Hand//Upper Extremity Surgery	Duke Clinic & Durham VA Med. Ctr.
ORTHO 432C	Brigman, Brian	41:42:43:44	(4 cr)	Mon-Fri, FT	Muskuloskeletal Oncology	1st day – 6:00 am – Orthopaedic Replant office, 7th floor, HAFS Bldg.
ORTHO 433C	Lark, Robert	41:42:43:44	(4 cr)	Mon-Fri, FT	Pediatric Orthopaedics	1st day – 6:00 am – Orthopaedic Replant office, 7th floor, HAFS Bldg.
OTOLARYN 401C	Lee,Janet	41:42:43:44	(5 cr)	FT	Sub-I in Otolaryngology – Head & Neck Surgery	TBD
OTOLARYN 403C	Lee,Janet	41:42:43:44	(4 cr)	FT	Clinical Otolaryngology	6:30am, 6300 on first day of classes
PATHOL 401C	Crimmins, Jennifer	41:42:43:44	(5 cr)	TBD	Pathology Sub-Internship	N/A
PATHOL 402C	Bandarenko, Nicholas	41:42:43	(4 cr)	FT	Primer of Clinical Pathology	TBD
PATHOL 423C	Glass, Carolyn	41:42:43:44	(4 cr)	8:00am-5:00pm, M-F	Autopsy Pathology	Autopsy Room – Davison Bldg.
PATHOL 448C	Arnold, Jeffrey	41:42:43:44	(4 cr)	8:00am, M-F	Practical Surgical Pathology	Davison Building, room M216A

Subject/Course Number	Instructor	Section(s)	Credit	Time	Title	Location
PEDS 401C	DeCoste, Jennifer	41:42:43:44	(5 cr)	FT	Adv Clerkship in Pediatrics	5100 & 5300 Duke Hospital
PEDS 402C	Venkatasubramani, Narayan	41:42:43:44	(3-4 cr)	FT; M-F	Pediatric Gastroenterology	TBD – (students that take Peds 228C are not eligible to enroll) Meet 1st day at 9am - Children's Health Ctr., 3rd Fl, GI - Duke Hospital
PEDS 409C	Jordan, Megan	41:42:43:44	(2 cr)	TBD	Peds. Palliative Care & Quality of Life	PICU 2W98c
PEDS 411C	O'Brian, Rachel	41:42:43:44	(3-4 cr)	Based on Shifts	Pediatric Emergency Medicine	Pediatric Emergency Dept.
PEDS 412C	Ali-Dinar, Tarig	41:42:43:44	(2 cr)	8:00am – 5:00pm, FT	Introduction to Peds Pulmonary & Sleep	TBD
PEDS 413C	Ali-Dinar, Tarig	41:42:43:44	(3-4 cr)	8:30am – 5:00pm	Peds Pulmonary and Sleep Medicine	TBD
PEDS 417C	Benjamin, Robert	41:42:43:44	(3-4 cr)	TBD	Pediatric Subspecialty	TBD
PEDS 419C	Blew, Kathryn	42:44:00	(3 cr)	TBD	LGBTQ Healthcare	TBD - information will be emailed to students
PEDS 420C	McGann, Kammy	41:41:43:44	(2 cr)	8:00am, FT; M-F	Intro Pediatric Infectious Diseases	Duke Hospital – T915 CHC
PEDS 421C	McGann, Kammy	41:42:43:44	(3-4 cr)	8:00a.m., M-F	Pediatric Infectious Diseases - Comp	Duke Hospital – T915 CHC
PEDS 424C	Benjamin, Robert	41:42:43:44	(1-2 cr)	9:00a.m.	Intro to Peds Endocrinology & Diabetes	CHC Lenox Baker
PEDS 425C	Benjamin, Robert	41:42:43:44	(3-4 cr)	9:00a.m.	Endocrine Disorders Children	CHC Lenox Baker
PEDS 426C	Izatt, Susan	41:42:43:44	(5 cr)	FT	Neonatology	ICN Duke Hospital
PEDS 427C	Van Mater, David	41:42:43:44	(4 cr)	8:00am. FT	Pediatric Hematology/Oncology	382 Hanes House
PEDS 428C	Buckley, Mary	41:42:43:44	(2 cr)	8:00am – 5:00pm, TBD	Intro to Peds Rheumatology	TBD
PEDS 429C	Buckley, Mary	41:42:43:44	(3-4 cr)	8:00am – 5:00pm	Intro to Peds Rheumatology	TBD
PEDS 430C	Armstrong, Sarah	41	(4cr)	FT	Healthy Lifestyles Program	TBD
PEDS 431	Spector, Zebulon	41:42:43:44	(4 cr)	7:00a.m., FT	Clinical Pediatric Cardiology	7617 Duke Hospital
PEDS 433C	Stallings, Amy	41:42:43:44	(4 cr)	8:30am- 5:00pm, M-F	Allergy & Clinical Immunology	4 <sup>th</sup> Fl, CHC – Allergy & Immunology Clinic
PEDS 434C	McDonald, Marie	41:42:43:44	(4 cr)	FT	Clinical Genetics- Metabolism	Genetics Clinic- CHC level 2, room 2924A
PEDS 436C	Patel, Shital	41:42:43:44	(4 cr)	FT	Pediatric Neurology	Peds Neuro. T0913-CHC
PEDS 440C	Straube, Tobias	41:42:43:44	(4 cr)	7:30am- 5:30pm; (on call); FT	Pediatric Intensive Care Unit (PICU)	Duke North
PEDS 441C	Sheldon, Candice	41:42:43:44	(4 cr)	8:30am, M-F	Pediatric Nephrology	0909 CHC
PEDS 446C	Bauchat, Andrea	41:42:43:44	(4 cr)	TBD, FT	Pediatric Stem Cell Transplant Unit	Old Duke Credit Union, 1400 Moreene Road
PSYCHTRY 401C	Penzner, Julie	41:42:43:44	(5 cr)	7:30am- 5:30pm; plus 1 weekend day and call can be taken every 5th night	Sub-I in Psychiatry	Duke Clinics, Williams Ward; 4th Floor, Red Zone

Subject/Course Number	Instructor	Section(s)	Credit	Time	Title	Location
PSYCHTRY 404C	<i>Rajagopalan, Aishwarya</i>	41:42:43:44	(4 cr)	M-F, FT	Pediatric Psychiatry Consultation Elective	N/A
PSYCHTRY 407C	<i>Shirey, Kristen</i>	41:42:43:44	(5 cr)	TBD	Sub-I in Internal Medicine/Psychiatry	TBD
PSYCHTRY 443C	<i>Purdy, Teresa</i>	41:43:44	(4 cr)	8:00am-5:00pm, M-F, Full-time	Addiction Psychiatry	Durham VA Medical Center
PSYCHTRY 445C	<i>Shirey, Kristen</i>	41:42:43:44	(4 cr)	7:30am-5:30pm, M-F, Full-time	Consult-Liaison Psychiatry	4098 Duke Clinics
RADIOL 402C	<i>Kim, Connie</i>	41:42:43	(2 cr)	FT	Breast Imaging	<i>TBD</i>
RADIOL 404C	<i>Solomon, Alex</i>	41:42:43:44	(2 cr)	FT	Vascular and Interventional Radiology	Students that took RADIOL 222C are not eligible to enroll in RADIOL 404C
RADIOL 406C	<i>Solomon, Alex</i>	41:42:43:44	(4 cr)	TBD	Advanced Vascular & Interventional Radiology	TBD
RADIOL 407C	<i>Langman, Eun</i>	41:42:00	(4 cr)	FT	Adv. Elective in Diagnostic Radiology	Duke North Radiology, Conference Room 1526
RADIOL 420C	<i>Carrico, Caroline</i>	41:42:43:44	(4 cr)	FT	Pediatric Radiology	Peds Radiol Division, 1st Fl, CHC - 1905A
RADIOL 421C	<i>Houk, Jessica</i>	41:42:43:44	(4 cr)	FT	Clerkship Neuroradiology	Neuroradiology CT Reading Room, DMP 1W98
RADIOL 429C	<i>Langman, Eun</i>	41:42:43:44	(4 cr)	FT	Radiology - PCLT	TBD
RADIOL 437C	<i>Spritzer, Charles</i>	41:42:43:44	(4 cr)	FT	Musculoskeletal Imaging	Bone Reading Room, Duke Hospital
RADONC 415C	<i>Larrier, Nicole</i>	41:42:43:44	(4 cr)	FT	Clinical Radiation Oncology	Morris Building/RADONC, Room 005113
STDYAWAY 410C	<i>Staff</i>	41:42:43:44	(1-4 cr)	TBD	Extra-Mural Clinical	TBD
STDYAWAY 411C	<i>Staff</i>	41:42:43:44	(1-4 cr)	TBD	Study Away at UNC	N/A
STDYAWAY 421C	<i>Staff</i>	41:42:43:44	(1-4 cr)	TBD	Study Away at WFU	N/A
STDYAWAY 431C	<i>Staff</i>	41:42:43:44	(1-4 cr)	TBD	Study Awa at ECU	N/A
STDYAWAY 440C	<i>Staff</i>	41:42:43:44	(4 cr)	TBD	Study Away at Sri Lanka	N/A
SURGERY 401C	<i>Gilmore, Brian</i>	41:42:43:44	(5 cr)	TBD	Advanced Surgical Clerkship	TBD
SURGERY 403C	<i>Sisk, Geoffroy</i>	41:42:43:44	(5 cr)	TBD	Sub-I in Plastic Surgery – Integrated Prog.	TBD
SURGERY 406C	<i>Scheri, Randall</i>	41:42:43:44	(4 cr)	TBD	Endocrine Surgery	<i>463 Seeley Mudd Building, (Dr. Scheri's Office)</i>
SURGERY 411C	<i>Johnson, Adam</i>	41:42:43:44	(4 cr)	TBD	Vascular & Endovascular Surgery	TBD
SURGERY 413C	<i>Overbey, Douglas</i>	41:42:43:44	(4 cr)	TBD	Advanced Surgery - Emphasis Cardiovascular Surgery	TBD
SURGERY 420C	<i>Blazer, Trey</i>	41:42:43:44	(4 cr)	6:00am – FT; M-F; hours determined by ER schedule; some overnight & weekends	General Surgical Oncology	TBD

Subject/Course Number	Instructor	Section(s)	Credit	Time	Title	Location
SURGERY 423C	<i>Tong, Betty</i>	41:42:43:44	(4 cr)	TBD	Advanced Surgery- Emphasis General Thoracic	TBD
SURGERY 426C	<i>Fitzgerald, Tamara</i>	41:42:43:44	(4 cr)	FT	Advanced Clerkship Pediatric Surgery	TBD
SURGERY 441C	<i>Vatsaas, Cory</i>	41:42:43:44	(5 cr)	FT	Surgical Intensive Care	SICU – 2200 Duke Hospital
SURGERY 443C	<i>Vatsaas, Cory</i>	41:42:43:44	(4 cr)	6a.m.-5:00p, (call per faculty)	Trauma Service	General Surgery Resident; bunker/lounge, 3rd Fl, DMP
SURGERY 444C	<i>Sisk, Geoffroy</i>	41:42:43:44	(4 cr)	FT	Intro. Plastics- Reconstruct. Max. Surgery	TBD
UROLOGY 401C	<i>Tejwani,Rohit</i>	41:42:43:44	(5 cr)	FT	Sub-I in Urological Surgery	TBD

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Subject/Course Number	Instructor	Section(s)	Credit	Time	Title	Location
ANESTH 401C	Cutone, Mike	41:42:44	(5 cr)	TBD	Cardiothoracic Intensive Care Sub-I	TBD
ANESTH 402C	Cutone, Mike	41:42:44	(4 cr)	TBD	Cardiothoracic Intensive Care Elective	TBD
ANESTH 430C	Derrick, Bruce	41:42:44	(4 cr)	7:30am	Diving and Hyperbaric Medicine	Hyperbaric Center Library; 0588 White Zone, CR II Bldg.
ANESTH 440C	Melnick,,Abigail	41:42:44	(4 cr)	FT	Clinical Anesthesiology	Schedules will be emailed
ANESTH 441C	Herbert, J. Taylor	41:42:44	(5 cr)	6:30am; M-F	Sub-I in Surgical Intensive Care Unit	SICU – Duke Hospital
ANESTH 445C	Derrick, Bruce	81	(1 cr)	TBD	Physical & Medicine of Extreme Environ	Hyperbaric Center Library
ANESTH 446C	Roy, Lance	41:42:44	(4 cr)	8:30am-5:30pm; M-F	Acute & Chronic Pain Management	Contact Dr. Roy 1 week prior to start date
COMMFAM 401C	Par,Emma	41:42:44	(5 cr)	FT	Sub-I in Family Medicine	Family Medicine
COMMFAM 403C	Mosu, Virgil	16	(1 cr)	TBD	Community Clinic Leadership	Holton Clinic
COMMFAM 410C	Trost, Melanie	41:42:44	(2 cr)	8:00am; FT	Travel Medicine at Duke	Student Health Ctr.; 305 Towerview Drive
COMMFAM 423C	Subramaniam, Satish	42	(4 cr)	8a-5p; M-F	Occupational & Environmental Medicine	TBD
COMMFAM 433C	Tran, Anh	41	(4 cr)	TBD	Community Health	TBD
COMMFAM 435C	Par, Emma	41:42:44	(4 cr)	FT	Health Promotion and Disease Prevention	Family Medicine
COMMFAM 448C	Hammond, Ed	42	(4 cr)	7:00am – 5:00pm	Intro.toMedical Informatics	Duke Center for Health Informatics
DERMATOL 401C	Fresco, Amber	41:42:44	(2 cr)	FT	Dermatology Inpatient Consults	TBD
DERMATOL 450C	Fresco, Amber	41:42:44	(4 cr)	8:30am-6:00pm	Clinical Dermatology	Dermatology Clinic, Room 08013 VAMC
EMERGMED 405C	Leiman, Erin	41:42:44	(4 cr)	TBD	Emergency Medicine Elective	TBD
EMERGMED 407C	Waite, Kathleen	16	(1 cr)	TBD	IPE Student Clinic Leadership	TBD
INTERDIS	Staff	16	(0 cr)	TBD	Clinical Experience (MSTP)	TBD
INTERDIS 400C	Staff	all sections	(0 cr)	TBD	Independent Study	N/A
INTERDIS 401C	McCartney, Sharon	41:42:00	(0 cr)	TBD	Acute Care Curriculum (should be taken simultaneously with approved acute care course)	TBD
INTERDIS 402C	Bradley, Don	16	(1 cr)	TBD	Intro to Healthcare Markets & Policy for Practitioners	Longitudinal course (fall/spring enrollment required - credit awarded in spring term)
INTERDIS 403C	Quaranta, Brian	81	(1 cr)	TBD	Narrative Medicine	TBD (Minimum enrollment = 8)
INTERDIS 406C	Doty,Joe	81	(1 cr)	6pm - 8pm	Physician Leadership: From Daily Challenges to Medicine in the 21st Century	Min. enrollment: 10
INTERDIS 408C	Cardona, Diana	41:42:44	(2 cr)	TBD	Bone and Soft Tissue Experience	TBD

Subject/Course Number	Instructor	Section(s)	Credit	Time	Title	Location
INTERDIS 422C	<i>Solorzano, Rosa</i>	16	(1 cr)	TBA	Exploring Medicine	TBD
INTERDIS 423C	<i>Solorzano, Rosa</i>	43	(1 cr)	TBA	Honduras Trip	TBD
INTERDIS 450C	<i>Fox, James</i>	16	(4 cr)	8:00am-5:00pm, M-F	Capstone - Required	TBD
INTERDIS 470C	<i>Staff</i>	16	(0 cr)		Clinical Experience	TBD
MEDICINE 402C	<i>Chase, Christiana</i>	41:42:44	(5 cr)	FT	Medicine Sub-I in Hematology/Oncology	TBD
MEDICINE 404C	<i>Harrison, Robert</i>	41:42:44	(5 cr)	FT	Cardiac Care Unit Sub-I	7400 – Duke Hospital
MEDICINE 405C	<i>Young, Katherine</i>	41:42:44	(5 cr)	FT	Medical Intensive Care Unit Sub-I -Duke	MICU-Duke Hospital
MEDICINE 407C	<i>Shirey, Kristen</i>	41:42:44	(5 cr)	7:30am-5:30pm	Sub-I Internal Medicine/Psychiatry	TBD
MEDICINE 412C	<i>Bernal, Talia</i>	41:42:44	(2 cr)	TBD	Hospital Medicine	TBD
MEDICINE 414C	<i>Waite, Kathleen</i>	41:42:44	(1-2 cr)	TBD	Introduction to Outpatient Primary Care	Students must contact Dr. Waite for schedule
MEDICINE 415C	<i>Yancy, William</i>	41:42:44	(4 cr)	FT	Clinical Management of Obesity	TBD
MEDICINE 416C	<i>Broome, Taylor</i>	81	(1 cr0	TBD	Effective Clinical Teaching	TBD
MEDICINE 423C	<i>Maheswaranathan, Mithu</i>	41:42:44	(4 cr)	8:00am-5:00pm, M-F	Rheumatology	34229 Duke Clinics
MEDICINE 424C	<i>Roberts, John K.</i>	81	(1 cr)	Wed., 5:30p - 7:30p	Fluids and Electrolytes	TBD
MEDICINE 425C	<i>Ortel,Thomas</i>	41:42:44	(4 cr)	FT	Clinical Coagulation	0546 Hospital
MEDICINE 427C	<i>Kayastha, Neha</i>	41:42:44	(2 cr)	FT	Hospice and Palliative Medicine	DVAMC- CLC
MEDICINE 428C	<i>Abouassi, Hiba</i>	41:42:44	(4 cr)	FT	Metabolism and Endocrinology	TBD
MEDICINE 431C	<i>Lugar, Patricia</i>	(4cr)		FT	Adult Allergy & Clinical Immunology	TBD
MEDICINE 432C	<i>Young, Katherine</i>	41:42:44	(2 cr)	7:30am; FT	Introduction to the MICU	DMP – 6E, outside of MICU bed 16
MEDICINE 434C	<i>Labriola, Matthew</i>	41:42:44	(4 cr)	8:00am	Outpatient Hematology/Oncology	Duke or DVAMC
MEDICINE 435C	<i>Ramchal, Talisha</i>	41:42:44	(4 cr)	8:00am-6:00pm; M-F, Full-Time	Gastroenterology	Tyor Conference Room, Duke Gastroenterology Clinical Ste, Orange Zone, room 0343
MEDICINE 437C	<i>Maheswaranathan, Mithu</i>	41:42:44	(2 cr)	FT	Rheumatology	TBD
MEDICINE 438C	<i>Labriola, Matthew</i>	41:42:44	(4 cr)	7:00am; FT	Clinical Hematology/Oncolgoy	DUKE OR DVAMC
MEDICINE 439C	<i>Galanos, Anthony N.</i>	81	(1 cr)	4p – 6p	Grief and Bereavement 101	TBD
MEDICINE 440C	<i>McClain, Micah</i>	41:42:44	(4 cr)	M-F; wkends opt.; FT	Clinical Infectious Diseases	1558 – Duke Clinics
MEDICINE 442C	<i>Grant, Augustus</i>	41:42:44	(4 cr)	TBD	Clinical Arrrhthmia Service	Students MUST check in with Dr. Grant on 1st day
MEDICINE 444C	<i>Agarwal, Richa</i>	41:42:44	(4 cr)	TBD	Heart Failure and Transplant.	TBD
MEDICINE 445C	<i>Shah, Nishant</i>	41:42:44	(4 cr)	FT	Consultative Cardiology	TBD

Subject/Course Number	Instructor	Section(s)	Credit	Time	Title	Location
MEDICINE 446C	<i>Punj, Shweta</i>	41:42:44	(4 cr)	8:00am-5:30pm; M-F, FT	Nephrology	Duke Hospital Dialysis Unit, 7th Floor, Near 7900
MEDICINE 449C	<i>Wong,Serena</i>	41:42:43:44	(4 cr)	8:00am-5:00pm; 5 days/week	Geriatric Medicine	TBD
MEDICINE 452C	<i>Briscoe, Joshua</i>	81	(1 cr)	5:15p – 7:15p	Clinical Medical Ethics: What Would A Good Physician Do?	Room 108, Seeley Mudd Bldg
MEDICINE 453C	<i>Mantri,Sneha</i>	82	(1 cr)	5:15p – 7:15p	Medicine, Humanities & the Arts	TBD - (minimum enrollment = 8)
NEURO 401C Neurology Sub-I	<i>Mayberry,Jordan</i>	41:42:43:44	(5 cr)	TBD	Neurology Subinternshp	N/A
NEURO 402C	<i>Gable, Karissa</i>	41:42:44	(4 cr)	TBD	Neurology Clerkship (only for students that were unable to take NEURO 205C)	TBD
NEURO 403C	<i>Gable, Karissa</i>	42:44:00	(1-2 cr)	8:00am-5:00pm; on call per faculty	Clinical Neuro Subspecialties	TBD
NEURO 404C	<i>Gable, Karissa</i>	41:42:44	(4 cr)	TBD	Consultative Neurology	TBD
NEURO 405C	<i>Davis Simon</i>	TBD	(1 cr)	5:30p – 7:30p	The Neurobiology of Aging	TBD
NEUROSUR 401C	<i>Cook, Steven</i>	41:42:44	(5 cr)	5:30am-5:00pm; plus on-call	Sub-I in Neurological Surgery	8W40A Duke North Pavilion
NEUROSUR 402C	<i>Cook, Steven</i>	41:42:44	(2 cr)	5:30am	Intermediate Clinicial Neuro	8W40A Duke North Pavilion
NEUROSUR 404C	<i>Khasraw, Mustafa</i>	41:42:44	(4 cr)	TBD	Neuro-Oncology	TBD
OBGYN 404C	<i>Dotters-Katz, Sarah</i>	44	(2 cr)	TBD	Preparation for OBGYN Residency	TBD
OBGYN 407C	<i>Weidner,Alison</i>	41:42:44	(5 cr)	7:00am-5:00pm; M-F; some weekends	Female Pelvic Medicine & Reconstructive Surgery Sub-I	OBGYN Clinic
OBGYN 410C	<i>Gray, Beverly</i>	41:42:44	(2 cr)	TBD	Complex Family Planning Elective	TBD
OBGYN 447C	<i>Honart, Anne</i>	41:42:44	(4 cr)	7:00am, M-F; some weekends	Clinical Obstetrics	5 <sup>th</sup> Floor –Duke Hospital, L& D Workroom
OPHTHAL 420C	<i>Rosdahl, Jullia</i>	81	(1 cr)	12p-1p	Medical Ophthalmology	AERI Bldg. (behind Eye Ctr.) Resource Ctr., Rm 1002 (lecture) - must meet the minimum enrollment to be offered)
OPHTHAL 422C	<i>Rosdahl, Jullia</i>	41:42:44	(4 cr)	8:00am, FT	General Ophthalmology	AERI Bldg. (behind Eye Ctr.), Cube #3
OPHTHAL 425C	<i>Freedman, Sharon</i>	41:42:44	(1-2 cr)	7:30am-5:00pm; M-F	Pediatric Ophthalmology	TBD
ORTHO 421C	<i>DeBraun, Malcolm</i>	41:42:44	(3 cr)	TBD	Frac & Musculoskeletal Trauma	TBD
ORTHO 429C	<i>Bradley,Kendall</i>	41:42:44	(5 cr)	FT	Sub-I in Orthopaedic Surgery	TBD
ORTHO 430C	<i>Lau, Brian</i>	41:42:44	(4 cr)	M-F; FT	Orthopaedic Sports Medicine	Finch Yeager Building – 3 <sup>rd</sup> Fl
ORTHO 431C	<i>Ruch, David</i>	41:42:44	(4 cr)	Mon-Fri	Hand/Upper Extremity Surgery	Duke Clinic and Durham VA
ORTHO 432C	<i>Brigham, Brian</i>	41:42:44	(4 cr)	M-F, FT	Musculoskeletal Oncology	1 <sup>st</sup> day – 6:00 am; Orthopaedic Replant Office; 7th floor, HAFS Bldg.



Subject/Course Number	Instructor	Section(s)	Credit	Time	Title	Location
ORTHO 433C	<i>Lark, Robert</i>	41:42:44	(4 cr)	M-F, FT	Pediatric Orthopaedics	1 <sup>st</sup> day – 6:00 am; Orthopaedic Replant Office; 7th floor, HAFS Bldg.
OTOLARYN 401C	<i>Lee, Janet</i>	41:42:44	(5 cr)	FT	Sub-I in Otolaryngology - Head & Neck Surgery	TBD
OTOLARYN 403C	<i>Lee, Janet</i>	41:42:44	(4 cr)	FT	Clinical Otolaryngology	1530 D & T
PATHOL 402C	<i>Bandarenko, Nicholas</i>	41:42:44	(4 cr)	FT	Primer of Clinical Pathology	TBD
PATHOL 423C	<i>Glass, Carolyn</i>	42:44:00	(4 cr)	8:00am-5:00pm, M-F	Autopsy Pathology	Autopsy Rm – Davison Bldg.
PATHOL 448C	<i>Arnold, Jeffrey</i>	41:42:44	(4 cr)	8:00am; M-F	Practical Surgical Pathology	Davison Bldg., room M216A
PEDS 401C	<i>DeCoste, Jennifer</i>	41:42:44	(5 cr)	TBD	Pediatric Subinternship	
PEDS 402C	<i>Venkatasubramani, Narayan</i>	41:42:44	(3-4 cr)	M-F	Pediatric Gastroenterology	(Students that take PEDS 228C - not eligible to enroll). 3rd Floor CHC - 1st day, 9AM
PEDS 409C	<i>Jordan, Meghan</i>	41:42:44	(2 cr)	9:00am	Pediatric Palliative Care and Quality of Life	TBD
PEDS 411C	<i>O'Brian, Rachel</i>	41:42:44	(3-4 cr)	Based on Shifts	Pediatric Emergency Medicine	Pediatric Emergency Dept., PICU 2W98C
PEDS 412C	<i>Ali-Dinar, Tarig</i>	41:42:44	(2 cr)	8:00am – 5:00pm	Introduction to Peds Pulmonary & Sleep	TBD
PEDS 413C	<i>Ali-Dinar, Tarig</i>	41:42:44	(3-4 cr)	8:30am – 5:00pm	Peds Pulmonary and Sleep Medicine	TBD
PEDS 417C	<i>Benjamin, Robert</i>	41:42:44	(3-4 cr0	TBD	Pediatric Subspecialty	TBD
PEDS 419C	<i>Blew, Kathryn</i>	42:44:00	(3 cr)	TBD	LGBTQ Healthcare	TBD
PEDS 420C	<i>McGann, Kammy</i>	41:42:44	(2 cr)	TBD	Intro to Pediatric Infectious Diseases	Duke Hosp; T915 CHC
PEDS 421C	<i>McGann, Kammy</i>	41:42:44	(3-4 cr)	8:00am; M-F	Pediatric Infectious Diseases - Comp	Duke Hospital; T915 CHC
PEDS 424C	<i>Benjamin, Robert</i>	41:42:44	(1-2 cr)	TBD	Introduction to Endocrine Disorders and	Diabetes - CHC Lenox Baker
PEDS 425C	<i>Benjamin, Robert</i>	41:42:44	(3-4 cr)	TBD	Endocrine Disorders - Children	CHC – Lenox Baker
PEDS 426C	<i>Izatt, Susan</i>	41:42:44	(5 cr)	7:00am-5:00pm; M-F, plus call per faculty	Neonatology	ICN Duke Hospital
PEDS 427C	<i>Van Mater, David</i>	41:42:44	(4 cr)	8:00am, M-F, plus rounding 1 or 2 weekend days	Pediatric Hematology & Oncology	381 Hanes House
PEDS 428C	<i>Buckley, Mary</i>	41:42:43:44	(2 cr)	8:00am – 5:00pm	Intro to Peds Rheumatology	TBD
PEDS 429C	<i>Buckley, Mary</i>	41:42:43:44	(3-4 cr)	8:00am – 5:00pm	Intro to Peds Rheumatology	TBD
PEDS 430C	<i>Armstrong, Sarah</i>	44	(4cr)	FT	Healthy Lifestyle Program	TBD
PEDS 431C	<i>Spector, Zebulon</i>	41:42:44	(3-4 cr)	7:00a.m.	Clinical Pediatric Cardiology	7617 Duke Hospital
PEDS 433C	<i>Stallings, Amy</i>	41:42:44	(4 cr)	8:30am-5:00pm; M-F	Allergy and Clinical Immunology	4th Fl, CHC – Allergy & Immunology Clinic
PEDS 434C	<i>McDonald, Marie</i>	41:42:44	(4 cr)	8:30am-5:00pm, M-F	Clinical Genetics - Metabolism	Genetics Clinic, CHC level 2, Rm T924A

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PEDS 436C	<i>Patel, Shital</i>	41:42:44	(4 cr)	FT	Pediatric Neurology	Peds Neuro. T0913-CHC
PEDS 440C	<i>Straube, Tobias</i>	41:42:44	(4 cr)	7:30am-5:30pm; plus on-call	Pediatric Intensive Care Unit (PICU)	PICU Duke North
PEDS 441C	<i>Sheldon, Candice</i>	41:42:44	(4 cr)	8:30am; M-F	Pediatric Nephrology	0909 CHC
PEDS 446C	<i>Bauchat, Andrea</i>	41:42:44	(4 cr)	Full Time	Pediatric Stem Cell Transplant Unit	Old Duke Credit Union, Morreene Rd
PSYCHTRY 401C	<i>Penzner, Julie</i>	41:42:44	(5 cr)	7:30am-5:30pm, M-F; plus 1 weekend day and call every 5th night	Sub-I in Psychiatry	Duke Clinics, Williams Ward, 4th Floor, Red Zone
PSYCHTRY 403C	<i>Riordan, Paul</i> Wednesday	81	(1 cr)	12p - 2p	The Science of Wholeness	TBD
PSYCHTRY 404C	<i>Rajagopalan, Aishwarya</i>	41:44:00	(4 cr)	TBD	Pediatric Psychiatry Consultation Elective	N/A
PSYCHTRY 407C	<i>Shirey, Kristen</i>	41:42:44	(5 cr)	TBD	Sub-I in Internal Medicine/Psychiatry	TBD
PSYCHTRY 443C	<i>Purdy, Teresa</i>	41:42:43	(4 cr)	8:00am-5:00pm	Addiction Psychiatry	Durham VA Med. Ctr.
PSYCHTRY 445C	<i>Shirey, Kristen</i>	41:42:44	(4 cr)	FT	Consult-Liaison Psychiatry	4098 Duke Clinics
RADIOL 402C	<i>Kim, Connie</i>	41:42:44	(2 cr)	FT	Breast Imaging	TBD
RADIOL 404C	<i>Solomon,Alex.</i>	41:42:44	(2 cr)	FT	Vascular Intern. Radiology	TBD
RADIOL 406C	<i>Solomon,Alex.</i>	41:42:44	(4 cr)	FT	Advanced Vascular Intern. Radiology	TBD
RADIOL 420C	<i>Carrico, Caroline</i>	41:42:43:44	(4 cr)	FT	Pediatric Radiology	Peds Radiology Division; 1st FL, CHC - 1905A
RADIOL 421C	<i>Houk, Jessica</i>	41:42:44	(4 cr)	FT	Clerkship in Neuroradiology	Neuroradiology CT Reading Room, DMP, 1W98
RADIOL 4291C	<i>Langman, Eun</i>	41:42:44	(4 cr)	FT	Radiology - PCLT	TBD
RADIOL 437C	<i>Spritzer,Charles</i>	41:42:44	(4 cr)	FT	Musculoskeletal Imaging	Bone Reading Room-Duke Hospital
RADONC 415C	<i>Larrier, Nicole</i>	41:42:44	(4 cr)	FT	Clinical Radiation Oncology	Morris Building/RADONC; Rm 005113
STDYAWAY 410C	<i>Staff</i>	41:42:44	(1-4 cr)	TBD	Extra-Mural Clinical	TBD
STDYAWAY 411C	<i>Staff</i>	41:42:44	(1-4 cr)	TBD	Study Away at UNC	N/A
STDYAWAY 421C	<i>Staff</i>	41:42:44	(1-4 cr)	TBD	Study Away at WFU	N/A
STDYAWAY 433C	<i>Staff</i>	41:42:44	(1-4 cr)	TBD	Study Away at ECU	N/A
STDYAWAY 440C	<i>Staff</i>	81:82	(4 cr)	TBD	Study Away at Sri Lanka	N/A
SURGERY 401C	<i>Gilmore,Brian</i>	41:42:44	(5 cr)	TBD	Advanced Surgical Clerkship	TBD
SURGERY 405C	<i>Peethumnongsin, Erica</i>	42	(1 cr)	TBD	Introduction to Point of Care Ultrasound	TBD
SURGERY 406C	<i>Scheri, Randall</i>	41:42:44	(4 cr)	TBD	Endocrine Surgery	Dr. Scheri's Office – 463 Seeley Mudd Building

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SURGERY 409C	<i>Gilmore, Brian</i>	44	(2 cr)	TBD	Surgical Techniques and Review (STAR)	TSCHE
SURGERY 411C	<i>Johnson, Adam</i>	41:42:44	(4cr)	TBD	Vascular & Endovascular Surgery	TBD
<i>SURGERY 413C</i>	<i>Overbey, Douglas</i>	41:42:43:44	(4 cr)	TBD	Advanced Surgery - Emphasis in Cardiovascular	N/-
SURGERY 420C	<i>Blazer, Trey</i>	41:42:44	(4 cr)	6:00am-until; plus on-call	General Surgical Oncology	TBD
SURGERY 423C	<i>Tong, Betty</i>	41:42:44	(4 cr)	FT	Advanced Surgery - Emphasis in Thoracic Surgery	N/-
SURGERY 426C	<i>Fitzgerald, Tamara</i>	41:42:44	(4 cr)	FT	Advanced Clerkship Pediatric Surgery	TBD
SURGERY 441C	<i>Vatsaas,Cory</i>	41:42:44	(5 cr)	FT	Surgical Intensive Care Unit (SICU)	SICU – 2200 Duke Hospital
SURGERY 443C	<i>Vatsaas, Cory</i>	41:42:44	(4 cr)	Daily @ 6a.m., M-F; on-call determined by faculty	Trauma Service	General Surgery Resident; bunker/lounge, 3rd FL, DMP
UROLOGY 401C	<i>Tejwani,Rohit</i>	41:42:44	(5 cr)	FT	Sub-I in Urological Surgery	TBD



Doctor of Medicine Program Hippocratic Oath Ceremony

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February, 2025