

# Duke University School of Medicine

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

*Spring Tulips Duke West Campus*



### Academic Year 2022-2023 53<sup>rd</sup> Edition Elective Courses and Contact Listing

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

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

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



## Academic Calendar – 2022-2023

*(Calendar and Registration Dates are Subject to Change)*

**COURSE DIRECTOR NOTE: Grades are due within 4 weeks of the last day of class for each section**

### Summer Term 2022

#### March

- 9-15 Wednesday, 8:30 a.m. – Tuesday, 1:00 p.m.  
Registration for rising MS4, summer  
(dates subject to change)
- 16 Thursday, 8:30 a.m., Drop/Add begins for summer 43, 44
- 30 Wednesday, 8:30 a.m. Registration for Rising MS4, fall opens

#### April

- 5 Tuesday, 1:00 p.m. registration closes
- 6 Wednesday, 8:30 a.m. – Drop/Add for Fall opens. (dates subject to change)

#### May

- 2 Monday, Begin classes in sections 41, 81
- 27 Friday, 12:00 midnight – End classes in section 41
- 30 Monday, Memorial Day – student holiday
- 31 Tuesday, Begin classes in section 42

#### June

- 10 Fri., 1:00 p.m. – Drop/Add Ends for summer, sections 82, 43, 44 (MS4)
- 20 Monday, Juneteenth observed; no classes
- 24 Friday, 12:00 midnight, End classes in sections 81, 42
- 27 Monday, Begin classes in sections 82, 43

#### July

- 4 Monday, Independence Day, student holiday
- 22 Friday, 12:00 midnight, end classes section 43
- 25 Monday, Begin classes in section 44

#### August

- 5 Friday, 1:00pm, Drop/Add Fall sections 41, 42, 81 (MS4) ends
- 5 Friday, SoM Annual Medical Student Research Symposium - **MANDATORY ATTENDANCE**
- 19 Friday, 12:00 midnight, End classes in sections 82, 44

### Fall Term 2022

#### August

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

#### September

- 5 Monday, Labor Day, student holiday
- 16 Friday, 12:00 midnight MS4 End section 41
- 19 Monday, MS4 Begin section 42

- 23 Friday, MS4, GRADES FOR 41 ARE DUE
- 30 Drop/add, fall, Sections 82, 43, 44 (MS4) ends

#### October

- 14 Friday, 12:00 midnight, MS4 End section 42, 81
- 17 Monday, MS4 Begin 43, 82

#### November

- 2-9 Wed., 8:30 am – spring registration opens; Tues., 1:00 p.m. MS3 registration for spring closes.
- 9 Wed., 8:30 a.m. MS4 Drop/Add for spring opens
- 11 Friday, 12:00 midnight, MS4 End section 43
- 14 Monday, MS4 Begin section 44
- 24-27 Thursday – Sunday, Begin Thanksgiving, student holiday
- 28 Monday, Classes Resume

#### December

- 9 Friday, 12:00 midnight MS4 End sections 44, 82
- 10 Saturday, Winter Break begins
- 16 Friday, 1:00 pm, MS4 on-line Drop/Add for spring, sections 81, 41 and 42 Ends

### Spring Term 2023

#### January

- 1 Sunday, New Year's Day
- 2 Monday, New Year's Day holiday observed
- 3 Tuesday, MS4 Begin sections 41, 81
- 16 Monday, Martin Luther King, Jr., student holiday
- 27 Friday, 12:00 midnight, End section 41
- 30 Monday, Begin section 42

#### February

- 4 Saturday, Drop/Add period for spring, sections 82, 43, 44 closes. (MS4) \*43 Capstone required
- 24 Friday, 12:00 midnight End sections 42 and 81
- 27 Monday, Begin section 43 – CAPSTONE - Mandatory

#### March

- 17 Friday, MS4 MATCH DAY
- 24 Friday, MS4 End section 43, CAPSTONE
- 27 Monday, Begin section 44

#### April

- 20 Friday, 12:00 midnight, MS4 End section 44

**May**

3 Wednesday, ALL MS4 Grades Due (to clear students  
for Graduation)  
12–14 Friday through Sunday, Graduation Activities

**NOTE: ALL GRADES MUST BE SUBMITTED TO THE OFFICE OF THE REGISTRAR BY SPECIFIED DATE IN  
ORDER FOR STUDENTS TO BE APPROVED FOR GRADUATION**

***(Calendar and Registration dates are Subject to Change)***

## ACADEMIC CALENDAR KEY

41 – 1<sup>st</sup> four weeks of term

42 – 2<sup>nd</sup> four weeks of term

43 – 3<sup>rd</sup> four weeks of term

44 – 4<sup>th</sup> four weeks of term

81 – 1<sup>st</sup> eight weeks of term

82 – 2<sup>nd</sup> eight weeks of term

16 – entire term

### ***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>fall 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.

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Anesthesiology  
Community & Family Medicine  
Dermatology  
Free Time  
Interdisciplinary  
Medicine  
Neurology  
Neurosurgery  
Obstetrics and Gynecology  
Ophthalmology  
Orthopaedics  
Otolaryngology  
Pathology  
Pediatrics  
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Surgery

- ***Schedule of Courses for 2022-2023***

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## ***THE ELECTIVE CURRICULUM***

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### ***Clinical Science Elective Program Fourth Year Requirements***

The clinical elective experience, usually occurring in the fourth year, should be used to: (a) aid in decision-making about the area of choice of postgraduate training, (b) obtain experiences in areas that would not be included in that postgraduate training and, above all, (c) pursue active experiences in patient care sufficient to provide the basic skills necessary for doctor-patient interaction. Effective with the entering class of fall 2010, in order to satisfy the requirements for the M.D. degree, students must complete at a minimum, 28 clinical science credits during the fourth year. All students are required to complete a four-week, five credit sub-internship at Duke. In addition, all students must take a four-week critical care elective at Duke or a Study Away institution. Students who were unable to participate in Clinical Skills Continuity (Interdis 305C) during the third year and were approved by their mentor to waive Continuity Clinic requirement during the third year will need to take one of the approved, four credit ambulatory electives during the fourth year.

Fourth year medical students must be enrolled in a minimum number of **8** credits per term. There is no part-time Doctor of Medicine program. All students are required to take the Capstone course.

Prior to summer registration for fourth year, each rising fourth year student meets with his or her advisory dean to examine postgraduate training interests and to receive information and recommendations to allow additional research into the area. The following are also considered:

- Composition of the clinical elective experience;
- Timetable for application to postgraduate programs;
- Appropriate postgraduate programs based upon the student's previous performance and specific long-range interests.

## ***ACADEMIC REGULATIONS AND GUIDELINES***

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### ***Clinical Science Credit Requirements for the Fourth Year***

During the fourth year 28 clinical science credits are required. Students who were eligible to satisfy Clinical Skills Continuity (Interdis 305C) during Year 3, but did not, will be required to complete 32 credits in their fourth year. Please refer to the Clinical Skills 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.

### ***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 [www.thirdyear.mc.duke.edu](http://www.thirdyear.mc.duke.edu). These include:

- submission of IRB/IACUC approvals (Research Ethics)
- proof of an oral presentation provided to the third year mentor
- completion of statistics modules
- submission of a thesis or other approved submission
- close IRB protocol or remove name from protocol
- completion of the Third Year Survey
- and other requirements deemed as appropriate by the Third Year Committee and Curriculum Committee.

### ***Compliance Requirements***

Students must satisfactorily complete all immunization, drug screening, fire/life safety, and compliance training requirements in order to be cleared for graduation.

### ***Course Audit***

With the consent of the appropriate instructor, fourth-year students are permitted to audit one course a semester in addition to the normal program. Students who audit a course do not actively participate, submit work, or receive credit for the course. Because of the nature of an audited course, most clinical science courses cannot be audited. However, those offered in a lecture format (as indicated in the electives book provided to fourth-year students) may be audited with the written permission of the instructor. After the first week of classes in any term, no course taken as an audit can be changed to a credited course and no credited course can be changed to an audit. Further, an audited course may not be repeated for credit.

### ***Course Load and Credit***

The normal course load each semester of the elective year is 16 credits. Registration is limited to a maximum of five credits in any four-week period. Students must be registered for at least eight credits during a semester to be considered enrolled full-time and thus be eligible to defer most loans and receive financial aid.

### ***Courses with Sole-Enrollment Limitations***

A sole-enrollment course prohibits registration in any other course during that same time period. These courses are indicated in the course descriptions following this section.

### ***Courses Taken at the VA Medical Center***

Students that are scheduled to complete elective rotations at the VA Medical Center must notify the



department in which they will be working at the VA Medical Center **at least eight weeks** prior to the start of the rotation. There are necessary procedures and paperwork that must be completed in order for the student to be eligible to work at the VA Medical Center. Students must be active in the VA system, have a valid PIV badge, and they must complete required paperwork in order to participate in clinics at the VA Medical Center. For questions, please contact Kamara Carpenter ([Kamara.Carpenter@duke.edu](mailto:Kamara.Carpenter@duke.edu)) or Clyde Meador, ([Clyde.Meador@va.gov](mailto:Clyde.Meador@va.gov)).

### ***Credit Conformity***

Credit for each elective course selected must conform to the amount listed in the course description, as approved by the Curriculum Committee. **It cannot be increased or decreased by the instructor of the course.** This can only be done by review and approval of both the Curriculum Administrative Group and the Curriculum Committee. For example, a course listed for four credits can only be taken for that number. Some courses, however, are offered for a variable number of credits (e.g., three - four credits). In these courses, the instructor and student determine the credit to be assigned prior to registration. After the first week of the term, the assigned credit cannot be changed.

### ***Email, Official Means of Communication***

Duke University School of Medicine uses email as an official means of communication with students. Deans, faculty, and administrators will generally employ your Duke email address (@duke.edu) when reaching out to you, and you are expected to check your Duke email account on a regular basis and to respond in a timely fashion. If you have your @duke.edu forwarded to a different email address, it is your responsibility to insure that important and time-sensitive communications are not lost. Failure to read and respond to official email in a timely fashion can have serious consequences for you.

### ***Federal Financial Aid – 45 Day Rule***

A student is considered to have withdrawn from the program if the student is not scheduled to begin another course, within the same period of enrollment, within 45 calendar days after the end of the course the student last attended. A student is considered to have withdrawn in a given term for Title IV purposes if the student ceases attendance at any point prior to completing the period of enrollment, unless the school obtains written confirmation from the student at the time of the withdrawal that he or she will attend a course that begins later in the same period of enrollment.

### ***Grading Policy***

Final course grades are available to the students via DukeHub. A grading basis is established for each course with Curriculum Committee approval. Currently the following grading schemes are established: Pass (P)/Fail (F), Honors (H)/High Pass (HP)/Pass (P)/Fail (F), Satisfactory/Unsatisfactory, and Credit (CR)/No Credit (NC). Certification by the course director that the student satisfactorily completed requirements for a course shall constitute grounds for a grade of Honors (H), High Pass (HP), or Pass (P). Grades of Honors (H) should be reserved for students who have performed in an exemplary manner in the opinion of the faculty. Credit (CR) is awarded to those students who successfully complete courses that have been approved by the Curriculum Committee to be graded as Credit (CR)/No Credit (NC).

The Liaison Committee on Education (LCME) requires that grades be submitted to the Office of the Registrar and made available to students within six weeks of the last day of classes. The SoM has implemented a shorter grade submission period for the last section prior to graduation and for the first four weeks of the fall term.

An Incomplete (I) grade is reserved for those students who have not met all of the requirements of a course because of illness or other such extenuating circumstances, or because of the inability to attain sufficient understanding of course material without additional study. Incomplete grades that are not satisfied within one calendar year automatically become a grade of Fail (F). The course director notifies the registrar when an incomplete grade has been satisfied. A passing grade is then added, however a note of

the Incomplete (I) remains on the official transcript. Grades of I are not removed from the permanent record and will appear on the official transcript.

A grade of F (fail) is recorded by the registrar on the official transcript and becomes part of the student's permanent record upon certification by the course director that unsatisfactory work has been done in the course based on documented criteria for passing. Failures cannot be erased from the official transcript, but the requirements of the course may be satisfied by repeating the course in a satisfactory manner. At that time, a passing grade is recorded on the official transcript.

A grade of withdrew (W) is available for those students who withdraw from a course due to a leave of absence or if a student withdraws from the School of Medicine.

### ***Graduation from Degree Programs***

Students may earn degrees on one of three different dates during the academic year: September 1, December 30, and in early May. Actual ceremonies are only held at the end of the spring term. Anyone who has a degree date of December or September is invited to participate in the May commencement program immediately following her or his actual graduation date.

Graduation candidates apply for graduation online through DukeHub. Students are currently notified via email to advise them of the period in which they must apply online for graduation. Students must include their name as it is to appear on their diploma. They must also include the mailing address where they may be reached before graduation for those graduating in May, and after graduation for students graduating in September and December. Any changes that are made (name changes, etc.) after the online apply for graduation session ends, must be done by completion of a paper form.

Student records are reviewed by the Office of the Registrar staff to ensure that, upon successful completion of the current courses, graduating seniors will fulfill degree requirements on schedule. Those students who are deficient are notified by the Office of the Registrar or their advisory dean to inform them of the situation and to discover how they plan to rectify the problem, e.g., add a course, graduate in a later specified semester (September or December), etc.

In mid-March, letters are sent by the Office of Student Affairs, to prospective May graduates asking them whether or not they plan to attend graduation exercises. It is extremely important that students wishing to be graduated *in absentia* inform the Office of Student Affairs and the Office of the Registrar of their intentions at this time. Diplomas are sent to such students at their permanent address.

### **Leave of Absence.**

In order to be granted a leave of absence of greater than one month, a student is required to complete the "Status Change" form and submit it to his/her advisory dean. The initial leave of absence may be granted for personal or academic reasons for a period not to exceed one calendar year. The advisory dean presents the completed form to the registrar who will notify appropriate course directors, the Office of Financial Aid, the Office of Curricular Affairs, and the Vice Dean for Education. A student desiring an extension of the leave of absence beyond one calendar year *must* update the "status change" form and obtain permission of the advisory dean for the extension before the current leave has expired. Failure to do so will automatically result in administrative withdrawal from the School of Medicine.

For purposes of deferring repayment of student loans during a school-approved leave of absence, **federal regulations limit the leave to six months**, and other lenders may have varying requirements. It is imperative that a student confer with the Office of Financial Aid about the implications of a leave of absence for financial aid matters. Please refer to the bulletin for tuition reimbursement information.

To be eligible to return from a leave of absence a student must:

- have satisfied all financial obligations (debt) to the university and
- notify the advisory dean and the registrar at least thirty days prior to re-enrollment so that necessary paper work and registration may be accomplished, and relevant course directors informed. Failure to notify the school of the intent to return at the end of the approved period of LOA may result in administrative withdrawal from the School of Medicine.

In all cases of leave of absence, other than for approved double degree programs, a student must complete requirements for the MD degree **within six years** of matriculation. Enrollment after a leave of absence greater than two years, for whatever reason, will require that the student apply for readmission to the School of Medicine. Students who are readmitted after a leave of absence may be required by the Vice Dean of medical education to repeat some or all of the previously completed coursework.

### **Medical Leave of Absence**

A medical leave of absence may be requested by a student or recommended by the advisory dean if it becomes apparent that a student is unable to continue the program of study for medical/psychiatric reasons. A medical leave is initially granted for up to thirty days. If additional medical leave time is required, the leave of absence policy must be followed and documentation from the treating physician must be submitted to the advisory dean. In order to return to the School of Medicine from a medical leave, all requirements for returning from LOA must be met and in addition, a statement from the student's physician attesting to the student's fitness to resume activities as a full-time student and recommendations for continued treatment must be submitted to the advisory dean. If there is an ongoing health issue requiring prescriptions, the advisory dean will request periodic verification of treatment from the student's provider regarding compliance with treatment requirements.

### **Medical Licensure**

The United States Medical License Examination (USMLE) is a two-step examination for medical licensure in the United States. USMLE is sponsored by the Federation of State Medical Boards (FSMB) and the National Board of Medical Examiners (NBME). It is governed through a jointly appointed composite committee consisting of representatives from the FSMB, the NBME, the Education Commission for Foreign Medical Graduates (ECFMG), and the public. Step One assesses how well a student can apply the knowledge and understanding of basic biomedical science, with an emphasis on principles and mechanisms of health, disease, and modes of therapy. Step Two CK Clinical Knowledge (CK), assesses how well a student can apply their medical knowledge and understanding of clinical science considered essential for the provision of patient care under supervision, including emphasis on health promotion and disease prevention. Steps One and Two CK must be passed to be eligible for Step Three. Step Three, typically taken in the first year of postgraduate training, assesses how well a resident can apply the medical knowledge and understanding of biomedical and clinical science considered essential for the unsupervised practice of medicine, with emphasis on patient management in ambulatory settings. Steps One, Two CK and Three are computer-based and must be taken in certified Prometric testing centers. Centers closest to Durham are in Raleigh and Greensboro. More information can be obtained from the USMLE website at <https://www.usmle.org>. Duke University medical students are required to **take** Steps 1 and 2 CK prior to graduation. Students may take these examinations at any point throughout the curriculum. Duke University School of Medicine considers licensure to be the responsibility of the individual, so passing is not a requirement for progress through our curriculum. The Duke curriculum is not directed to prepare students specifically for licensure examinations; however, satisfactory performance in medical school should provide sufficient information and experience to pass these exams. Students are strongly encouraged to take the required examinations by December, prior to their scheduled May graduation date.

According to the NBME, "In order to be eligible to register for USMLE Step 3, students and graduates of LCME- or AOA-accredited medical schools will be required to not only meet current examination requirements (i.e., passing Step 1 and passing Step 2 CK); have graduation dates in 2005 or later, or b) have graduation dates prior to 2005 and have not passed the CK component of Step 2 taken on or before June 30, 2005." More information is available on the [USMLE website](https://www.usmle.org). Applications for Steps One and Two are available on the National Board of Medical Examiners website (<https://www.nbme.org>).

### **Fourth Year Course Requirements**

Fourth year students that did **NOT** satisfy the Clinical Skills continuity requirement for Year 3, are required to take an approved 4 credits of outpatient clinic chosen from the list below. Students that were exempt from completing the clinical skills continuity requirement during the third year because they were away

from Duke, in an approved second degree program, had a scholarship that precluded taking courses for credit, or your mentor did not allow them to do the clinical skills continuity requirement, the approved outpatient course they elect to complete in fourth year will count as part of your 28 credits required in fourth year.

**Students NOT exempt from the third year clinical skills continuity requirement but did not complete it, are required to complete an approved outpatient course during the fourth year but must add an additional four credits to the required 28 credits. These students will be required to complete a total of 32 fourth year clinical credits in order to be cleared for graduation.**

***Courses that are approved to satisfy the Continuity Clinic Requirement:***

***ANESTH 446C – Acute & Chronic Pain Mgmt.***

***COMMFAM 423C – Occupational & Environ.  
Medicine***

***COMMFAM 433C – Community Health***

***COMMFAM 435C – Health Promotion & Disease  
Prevention***

***DERMATOL 450C – Clinical Dermatology***

***MEDICINE 415C – Clinical Management of Obesity***

***MEDICINE 423C – Rheumatology***

***MEDICINE 428C – Metabolism & Endocrinology***

***MEDICINE 434C – Outpatient Hem/Onc (Duke or  
VA)***

***MEDICINE 431C – Adult Allergy & Clinical  
Immunology***

***MEDICINE 442C – Clinical Arrhythmia (outpatient  
option)***

***MEDICINE 446C – Nephrology***

***MEDICINE 449C – Geriatric Medicine***

***NEUROSUR 4040C – 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 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***

***RADONC415C – Radiation Oncology***

All fourth year students are required to have completed clinical electives that fulfill the following criteria by the time of graduation:

- a four-week, 5-credit subinternship experience in the field of their choice, which must be completed at Duke

- a four-week, 4 or 5 credit acute care elective, which must be completed at Duke. Enrollment in one of the courses below would meet this requirement. (Students in the PCLT and LIC tracks are required to take the second year Emergency Medicine: Longitudinal Experience course during the 2<sup>nd</sup> year course during second year). With the exception of the PCLT and LIC track students, students in the MD program must complete the Acute Care Curriculum (INTERDIS 401C) simultaneously while they are enrolled in a course that has been approved to satisfy the acute/critical care course requirement. This is under review and subject to change.

If the student has had a placement in an Intensive Care Unit to meet their subinternship requirement, they must select one of the other course options to meet the acute/critical care requirement.

***Courses that satisfy the  
Acute Care Requirement***

ANESTH	402C
ANESTH	440c
ANESTH	441C
MEDICINE	404C
MEDICINE	405C
MEDICINE	406C
NEURO	401C
PEDS	411C
PEDS	426C
PEDS	440C
SURGERY	412C
SURGERY	441C
SURGERY	443C

***Courses that satisfy the  
Subinternship Requirement***

ANESTH	401C	OBGYN	409C
ANESTH	441C	OBGYN	447C
COMMFAM	401C	ORTHO	429C
MEDICINE	401C	OTOLARYN	401C
MEDICINE	402C	PEDS	401C
MEDICINE	404C	PEDS	426C
MEDICINE	405C	PSYCHTRY	401C
MEDICINE	406C	PSYCHTRY	407C
MEDICINE	407C	SURGERY	401C
NEURO	401C	SURGERY	402C
NEUROSUR	401C	SURGERY	403C
OBGYN	405C	SURGERY	441C
OBGYN	407C	SURGERY	451C

***Note: The approved acute care courses and subinternships are currently under review and are subject to change.***

***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
- Interdis 402C – Introduction to Healthcare Markets and Policy for Practitioners
- Interdis 403C – Narrative Medicine for Medical Learners
- Interdis 405C – Responding to a National Pandemic
- Interdis 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 438C - 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
- Ophthal 420C – Medical Ophthalmology
- Peds 408C - Child Advocacy Lab

### ***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	41	First four weeks
81	First eight weeks	42	Second four weeks
82	Second eight weeks	43	Third four weeks
		44	Fourth four weeks

# ***On-line Web Registration and Drop/Add Procedures***

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## ***Here are the easy steps:***

- 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.
- **Verify that there are no holds on your bursar account.** The Registrar's Office cannot remove holds placed by another office.
- DukeHub: <https://dukehub.duke.edu/>  
(If you encounter any problems logging in, please contact the OIT Help Desk at 919-684-2200.)
- 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

## ***Adding Courses to your schedule in DukeHub:***

- Select the Dashboard and expand (looks like three lines, "pancake") 
- Navigate to Class Information
- Select [Simple Class Search](#) (on the left side of page)
- Verify that the Term, Career and Subject are correct
- Navigate to the course to be added and click "View Sections"
- Click on the icon that is 3 dots stacked on top of one another
- Choose "enroll"
- If course requires a permission number to enroll, (to be obtained from course director or their designee), enter the number in the open field and click "Save". If permission number is not required, click "Save".
- Verify enrollment by selecting "Grades" under the Academics Section.

Course descriptions may be viewed from the DukeHub site using the class search feature. Students may View the Fourth Year Elective Book, located on the Registrar's Office webpage, <http://medschool.duke.edu/education/Office-of-the-registrar>. 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 “full”
- 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.
- 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. 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 entering after fall 2011 must successfully complete at least 28 clinical credits during their Fourth year to be cleared for graduation. For more information, please refer to the 4<sup>th</sup> Year Electives book, under “Fourth Year Requirements”.
- 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 a PCLT or LIC student.
- Courses can only be taken for the number of credits as approved by the Curriculum Committee. Students not taking classes during a 4 or 8 week period must be enrolled in either FREETIME or submit an approved Independent Study form and the SoM Registrar will enroll you. Students do not need to enroll in FREETIME during the fall term because they should be enrolled in INTERDIS 450C, Capstone, for the entire term, section 16. Independent Study must be approved by your advisory dean and a form submitted to the Registrar.
- **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 on-time will have tuition and financial aid ramifications, i.e.,- no initial registration = no tuition bill = no financial aid = no refund. A professionalism form will be submitted for students that fail to meet the registration deadline.**

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

#### ***Additional Drop-Add Information:***

On-line drop-add periods are held each semester. During these designated periods, students are permitted to make changes in course selections for all sections. A second on-line drop-add period occurs prior to the start of sections 82 and 43 and covers courses offered during the last eight weeks of the semester (sections 82, 43, and 44). Students that fail to make the requested changes outside of the on-line drop/add period must complete a drop/add form via the DocuSign link on the SoM Registrar’s website.

**Courses should not be dropped or added during the two-week period of time prior to the start of the classes. This provides the course directors with a mechanism by which they can monitor and control late changes in their course enrollment and to complete schedules.**



# ***Calendar for Registration and Drop/Add Periods***

The calendar for fourth year registration and drop/add periods for the 2021-2022 academic year are listed below. Please remember that dates are subject to change:

## ***Fourth Year Elective and Capstone Registration:***

<u>Term</u>	<u>Registration</u>	<u>First Day of Class</u>	<u>Late Reg./Drop-Add</u>
<b>Summer 2022</b>			
MS4	Mar. 9 – Mar. 15, 2021	May 2, 2022	No Online drop/add for sections 81, 41, 42
			March 16- June 10, 2022 sections 82, 43, 44
<b>Fall 2022</b>			
MS4	Mar. 30 – Apr. 5, 2022	Aug. 22, 2022	Apr. 6 - Aug. 5, 2022 sections 81, 41, 42
			Apr. 6 – Sept. 30, 2023 sections 82, 43, 44
<b>Spring 2023</b>			
MS4	Nov. 2 – Nov. 8, 2022	Jan. 3, 2026	Nov. 9 – Dec. 16, 2021 sections 81, 41, 42
			Nov. 9 – Feb. 4, 2023 sections 82, 43, 44

***(Registration/Drop and Add Dates are Subject to Change)***

## ***COURSES TAKEN AWAY FROM DUKE SCHOOL OF MEDICINE***

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### ***Courses Taken through Other Divisions of Duke University***

With the written approval of the advisory dean, courses can be taken in the Graduate School or in other divisions of Duke University in lieu of instruction at the Duke University School of Medicine. The current fees and tuition at the Medical School are charged. The student must obtain permission from the advisory dean and the instructor of the course on a drop-add form. The approval is submitted to the School of Medicine, Office of the Registrar, at least two weeks before the beginning of the course.

It is rare for a medical student to take undergraduate courses at Duke University School of Medicine. However, if a student wishes to do so, he or she must follow the same procedures as above. Undergraduate courses are entered onto the medical school record as audits and do not carry tuition charges. However, any special fees for courses such as those in applied music and some physical education courses are assessed. No more than one audit per semester can be taken.

If a dual degree student (e.g., M.D./Ph.D., M.D./J.D.) is currently on leave from the Medical School to pursue the alternate degree in another division of the University and wishes to take a course in a third division, registration for that course must be made through the Office of the University Registrar's, 1121 West Main Street, Suite 1200, Bevan (Coca-Cola) Building, Durham, NC 27701, (Box 104804), rather than through the Office of the Registrar in the School of Medicine. For example, if an M.S.T.P. student registered in the Graduate School working toward the Ph.D. wishes to take piano lessons through Trinity College (the College of Arts and Sciences), that course must be put on the Graduate School record because the student is not taking courses in the School of Medicine during the same time period.

### ***Reciprocal Agreements with Neighboring Medical Schools***

Under a plan of cooperation between the Duke University School of Medicine, the Wake Forest School of Medicine, the Brody School of Medicine (East Carolina University School), and the University of North Carolina-Chapel Hill School of Medicine, degree candidates of one institution may participate in elective courses for credit at one of the other schools. Courses taken usually are ones not available at the home institution or not offered at times that can be accommodated by the students' schedules. Enrollment in another institution is limited to one term and is contingent upon available space in the course(s). These courses are regarded as "in house" electives at Duke and, as such, appear on the transcript with the awarded grades.

**Important Note:** The amount of credit granted for an interinstitutional course is the same as that awarded for a comparable course at Duke unless the course concerned is (1) a sub-internship, or (2) offered for fewer credits and meets less often than its Duke counterpart. Students can earn a maximum of four credits for sub-internships taken at any school other than Duke or UNC at Chapel Hill. The School of Medicine sub internship requirement must be satisfied at Duke School of Medicine.

Students involved in this program are assessed the current Duke tuition and fees. Interinstitutional visitors to Duke are charged neither tuition nor student health fees for this type of enrollment. Application for elective courses are submitted and accepted via VSAS – The Visiting Student Application Service, <https://services.aamc.org/20/vsas/>.

### ***Study Away Information***

Students in the MD Program at Duke who have maintained a high level of academic performance throughout their first two to three years are eligible to study at another institution and receive academic credit at Duke for this experience. Students must have successfully completed all courses in the first two years at Duke before they are eligible to study away for credit. It is *unlikely* that students with any failures or marginal performances at Duke will receive permission. It is not recommended a student study away

from Duke for credit during the four weeks prior to his or her graduation. Study Away applications are available on the <https://medschool.duke.edu/education/student-services/office-registrar/student-services-and-resources> website. Fourth year Study Away must be approved by the student's advisory dean and the Duke Risk Management Office and students may not begin their away rotation until the SoM Registrar's Office receives the approved study away application. Credit toward the Duke MD degree is not to exceed nine units of clinical elective credit unless recommended by the Committee (exceptions, military students).

To obtain approval for work taken away from Duke University, the student must first contact her or his advisory dean to determine if qualified. Transfer students and students receiving grades of "Fail" in any of the core basic or clinical science courses of the first and second years even after successful remediation may not be eligible for this option. Students that apply for an away rotation and obtain approval through the Visiting Student Application Service (VSAS) **must** also complete the Study Away Application for the School of Medicine. Copies of the elective books of selected medical schools are kept in the Reserve Room at the Medical Center Library and are available for student usage.

Upon approval and receipt of the study away application, students are registered for the study away rotation by the School of Medicine Registrar's Office. (Clinical science courses are designated as *STDYAWAY 410C, 411C (UNC), 421C (WFU), and 431C (ECU)*. *The amount of credit awarded for study away work is based upon that given for a comparable course at Duke. With the exception of those at UNC-Chapel Hill, subinternships taken extramurally can earn a maximum of four credits at Duke*). The current Duke tuition, rather than that of the visited institution, is assessed for extramural clinical science courses. Students may not audit study away courses. Students are approved for credit only.

Students may take up to two approved away rotations (a total of 8 credits) during their fourth year. Credit from additional approved away electives will not count toward the required graduation credits.

***Note:*** *When completing the on-line registration process through VSAS, students are asked for an access number. That number must be obtained from Ms. Sheba Hall in the Student Affairs Office, ([sheba.hall@duke.edu](mailto:sheba.hall@duke.edu)) or contact [medstudaff@dm.duke.edu](mailto:medstudaff@dm.duke.edu).*

Students can receive no more than 4 credits for a subinternship completed away from Duke University School of Medicine. (The exception is UNC, Wake Forest, or ECU- they may receive up to 5). Students may receive 5 credits for a subinternship at an interinstitutional school but the maximum is 4 credits for all other subinternships completed away from Duke School of Medicine. The away subinternship does not satisfy the School of Medicine sub-internship requirement. That requirement must be satisfied at Duke University School of Medicine. The acute care requirement must also be satisfied at Duke University School of Medicine. The current Duke tuition, rather than that of the visited institution, is assessed for extramural clinical science courses.

### ***Financial Aid When Studying Away***

Need-based financial aid is available during the fourth year clinical elective years.

Students that wish to apply for need-based assistance should follow the application instructions and deadlines as stated on the Financial Aid website, <http://medschool.duke.edu/education/financial-aid-office>. Duke University School of Medicine policy dictates that all external scholarships replace need-based loans first. At such time that these loans are replaced, then the grant portion of your aid award will be reduced. This includes any merit scholarships as well. Total aid from all sources cannot exceed the determined cost of attendance for the study away program you are participating in. Whenever aid exceeds cost, there is an over award situation which is a violation of federal regulations (HEA section 673.5 (b) (2), 673.5 (D)). All effort has been made to ensure that you have all the financial aid you are entitled.

Need-based financial aid funds are not available for any added monthly cost at study away sites where living expense is greater than if the student studies at Duke. Unsubsidized loans can be obtained for these additional expenses.

The funds credited to your student account first go to pay any outstanding tuition or fees on your account. Any remaining balance will be refunded to you.

*Should you need additional information, please feel free to contact the Office of Financial Aid at 919-684-6649 or via email, [Finaid-som@dm.duke.edu](mailto:Finaid-som@dm.duke.edu).*

## ***GENERAL INFORMATION***

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### ***DukeHub Website and Student Information System***

Students can access the DukeHub website by navigating to, <https://dukehub.duke.edu/>.

This is the location in which students are able to obtain grades, register for classes, apply for graduation, sign up for health insurance, check semester schedules, apply for graduation, review "To Do" lists, financial aid and student account information, and update their addresses and phone numbers. Students access DukeHub by using their net ID username and password, which are assigned upon entering their first year of medical school. For assistance with passwords or access, students may call the OIT Help Desk at 684-2200. By navigating the DukeHub website, students can not only keep informed, but interact directly with the various systems of the medical school to ensure better communication and service. School of Medicine students are strongly encouraged to become familiar with DukeHub in order to expedite the flow of information and to address a variety of their needs as medical students.

### ***Indebtedness to the University***

It is the policy of Duke University to prohibit individuals who have past due balances on their accounts from registering for future terms. Individuals are sent letters informing them as to the amount of money due to the University and instructions to contact University Cashiering, Smith Warehouse, Bay 8, Box 90759, (919-684-3531), immediately to pay or make satisfactory arrangements to settle the debt. Failure to obtain clearance from the Bursar's Office prevents students from registering for the next term. Consequently, if barred from registering until the late registration date, students are not in a competitive position to gain entrance into popular courses. **The Office of the Registrar cannot remove any financial block and cannot register a student with a block. It is extremely important to have all financial issues resolved before the on-line registration time period begins.**

An individual who is in default is not allowed to register for classes, receive a transcript of academic records, have academic credits certified, be granted a leave of absence, or receive a diploma at graduation. In addition, an individual in default may be subject to withdrawal from the school.

### ***Internship Interviews***

It is the recommendation of the School of Medicine that a student miss no more than 3 days in any four-week course/clerkship/elective. It is, however, at the discretion of the course instructor to determine the number of allowable days a student can miss for the purpose of interviewing. The student must give the instructor of the effected course sufficient notice of his or her intention to be away for an interview so that a mutual determination can be made as to the best time to be absent. A time away request form may need to be completed. This ensures that the learning experience in that course is in no way jeopardized. Students must confer with the instructor to complete missed time and work in a timely manner. Students must complete missed time within the same semester that they were enrolled in the course.

### ***School of Medicine Severe Weather Attendance Policy***

The School of Medicine will handle the cancellation of classes in the following manner:

All School of Medicine students will follow the Provost's decision in regards to cancellation of classes. If classes are cancelled, students should not report for any medical school activities (classes, labs, clerkships, clinical assignments, etc.) and if students are on service they must leave when the policy is implemented. Course directors, mentors, and faculty are aware of this policy so that individual decisions should not be made.

These decisions can be determined by calling **684-4636 (INFO)** or by visiting the School of Medicine, Office of the Registrar's website, [registrar.mc.duke.edu](http://registrar.mc.duke.edu), the "DukeAlert" site, <http://emergency.duke.edu>, or <http://www.duke.edu/today/>.

Please note that 684-INFO and <http://emergency.duke.edu> are considered the official communication for inclement weather announcements.

### ***M.S.T.P. and Ph.D. Students Returning to Medical School***

After successfully completing all required courses, Responsible Conduct for Research (RCR) and examinations for the Ph.D. degree in the Graduate School, the MSTP student may return to the School of Medicine to resume course work on the condition that he or she: (a) provides the MSTP Office with the signed thesis defense exam card and (b) meets with the appropriate advisory dean to discuss educational goals and to obtain that dean's signature prior to web registration. Upon completion of the Ph.D. degree, 36 basic science credits are awarded in transfer by the School of Medicine. Students must provide the School of Medicine with a copy of their "completed" Graduate School transcript in order for third year credit to be awarded to the School of Medicine transcript.

### **Withdrawal from the MST program prior to completion of the PhD degree requirements**

Students who leave the MST Program in their *first year* of graduate school will be required to complete **all** of the requirements of the School of Medicine's third year. Research activities performed during this year are not considered sufficient to fulfill the third year study program requirements because:

1. The goal of the graduate rotations is to expose students to the research environment of a laboratory and the mentoring style of the PI, and not necessarily to complete a piece of in depth research.
2. The short (1-3 months), does not provide a complete and in-depth research experience. In contrast, a 3rd year study project is designed to require 10-12 months of full time research under a single mentor, culminating in a document over which the student is rigorously examined. The student is responsible for the research design and execution, as well as the intellectual and scholarly underpinnings and trajectory of the work.

Students leaving graduate school *after* completing their first year of graduate school *may be* eligible for full or partial credit towards their third year project requirements. Suitability of their research experience in graduate school for fulfilling their 3<sup>rd</sup> year medical school requirements will be determined by the 3<sup>rd</sup> Year program study committee. They will be required to fulfill the thesis, course work, and examination requirements of the 3<sup>rd</sup> year of medical school plus the remainder, if any, of the research experience.

**All students leaving the MSTP program at *any time* before completing the PhD degree will be responsible for all tuition and fees associated with enrollment in the School of Medicine for the Third Year.** This is applicable regardless of whether full or partial credit is given for the research portion of their graduate work towards fulfilling the third year requirements. Students will be removed from MSTP funding when they de-matriculate from the MST Program, but may apply for School of Medicine financial aid programs.

### ***Student Health Fee during Periods of Non-Enrollment***

Payment of a fee for the student health program is mandatory of all students unless the student or her or his spouse is a Duke employee.

A student who is not registered for a summer semester but who intends to remain in Durham may also retain coverage by paying the appropriate fee. Requests to be assessed the summer student health fee for periods of non-enrollment should be directed to the Student health representative, Kelan Beacham, ([kelan.beacham@duke.edu](mailto:kelan.beacham@duke.edu)). Students desiring student health fee coverage for periods of non-enrollment during the *fall and spring terms* of the academic year must petition the University Dean for Student Life for

permission. *It should be noted that fees cannot be paid retroactively for coverage during periods of non-enrollment.* Duke students enrolled elsewhere through the interinstitutional program or in the Duke/UNC Public Health Program are charged the health fee along with Duke tuition.

## Transcripts of Academic Record

**Please Note:** Transcripts are processed daily at the time you place the order. 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 degree posted, please wait until after the semester has ended and the graduation ceremony is complete to submit the request.

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

[Go to DukeHub](#)

Current students are able to 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.

Need help? Read this [help guide](#).

## Duke Alumni and Former Students

[Order Transcript](#)

Order transcripts via [Parchment storefront](#).

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

**ERAS Transcript Requests:** *Transcript requests for ERAS must be requested on-line through DukeHub (Parchment). Students should request that they be sent electronically via a secure email, to [medstudaff@dm.duke.edu](mailto:medstudaff@dm.duke.edu).* The transcripts will be uploaded to ERAS by a member of the Student Affairs staff.

**Withdrawal Policy School of Medicine**

If a student withdraws from a program during the first three weeks of the semester, including involuntary withdrawal/dismissal for academic or professionalism reasons, all tuition is refunded. A student who withdraws from the program later in the term will have no tuition refunded and the status of the student is indicated on the permanent record with a W (Withdrawn).

Voluntary withdrawal from a program is initiated at the request of the student. Discussion with the student's advisory dean is required. Such requests must be submitted in writing using the "Change" form located on the School of Medicine Registrar website. The completed form, with all required signatures, should be submitted to the School of Medicine's Office of the Registrar. The Registrar will notify course faculty as appropriate, the School of Medicine's Office of Financial Aid, Office of Curriculum, and Duke Bursar Office. It is the student's responsibility to contact the Bursar's Office regarding fulfillment of financial obligations to the University. It is also the student's responsibility to meet with a Financial Aid Office representative to discuss adjustments to aid and federal exit requirements.

The Promotions Committee is responsible for recommending to the Vice Dean of Medical Education if a student should be involuntarily withdrawn/dismissed for academic or professionalism reasons. The student will be notified in writing with copy to the SOM Registrar. A student wishing to appeal a decision may do so to the Vice Dean of Medical Education within two weeks of the notification. If there is a reversal in the decision, the Vice Dean will notify the Registrar. The Registrar will notify course faculty and as appropriate, the School of Medicine's Office of Financial Aid, Office of Curriculum, Duke Bursar Office, and Advisory Dean.



## ***DESCRIPTIONS OF ELECTIVE COURSES***

### ***CLINICAL SCIENCE OFFERINGS***

Anesthesiology  
Community and Family Medicine  
Dermatology  
Freetime  
Interdisciplinary  
Medicine  
Neurology  
Neurosurgery  
Obstetrics and Gynecology  
Ophthalmology  
Orthopaedics  
Otolaryngology  
Pathology  
Pediatrics  
Psychiatry  
Radiation Oncology  
Radiology  
Surgery

The suffix of "C" denotes a clinical science course.

# Duke University

# School of Medicine

## *Courses of Instruction*

### **Anesthesiology**

#### **Clinical Science Electives**

**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 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 (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 Dr. Sharon McCartney at [sharon.mccartney@duke.edu](mailto:sharon.mccartney@duke.edu) or Jacole Hairston at [Jacole.Hairston@duke.edu](mailto:Jacole.Hairston@duke.edu). Permission of the instructor is required for enrollment. Credit: 5. Enrollment: Max-2 Min-1. *Sharon McCartney, MD; Ian Welsby, MBBS, BSc; Mihai Podgoreanu, MD; Kamrouz Ghadimi, MD; Nazish Hashmi, MD; Loreta Grecu, MD; Jerrold Levy MD; Ehimenen Iboaya, MD; Madhav Swaminathan, MD; Annemarie Thompson, MD; Meredith Whitacre, MD; Rasesh Desai, MD; Sundar Krishnan, MD; Jason Katz, MD.*

**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 (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, please contact Dr. Sharon McCartney, [sharon.mccartney@duke.edu](mailto:sharon.mccartney@duke.edu) or Jacole Hairston at [Jacole.Hairston@duke.edu](mailto:Jacole.Hairston@duke.edu). Permission of the instructor is required for enrollment. Credit: 4. Enrollment: Max-4 Min-1. *Sharon McCartney, MD; Ian Welsby, MBBS, BSc; Mihai Podgoreanu, MD; Kamrouz Ghadimi, MD; Nazish Hashmi, MD; Loreta Grecu, MD; Jerrold Levy MD; Ehimenen Iboaya, MD; Madhav Swaminathan, MD; Annemarie Thompson, MD; Meredith Whitacre, MD; Rasesh Desai, MD; Sundar Krishnan, MD; Jason Katz, MD.*

**ANESTH-430C. Diving and Hyperbaric Medicine.** Students participate actively in assigned patient care and clinical projects. Well-focused segments of ongoing clinical work provide intensive exposure to clinical physiology and pharmacology. Students will be assigned an attending physician (mentor), desk and computer space in the Hyperbaric Center. Consultative services are provided for inpatients and outpatients from orthopedics, medicine, radiation oncology, intensive care units, and preoperative and postoperative care units. Specific indications for hyperbaric oxygen therapy are used in 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](mailto:bruce.derrick@duke.edu)). Secondary contact: Dr. Jake Freiburger, 668-0032. Students should meet for rounds on the first day of classes promptly at 7:30 a.m. The location is Hyperbaric Center Library, 0588 White Zone, CR II Building. Credit: 4. Enrollment Max 1. *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, such labor and delivery, pediatric operating rooms, neurosurgical operating rooms, regional anesthesiology service, and/or acute pain management. Learning opportunities will include pre-operative patient evaluation, anesthetic technique selection, airway management, pharmacology, physiology, and anatomy, as well as procedures such as 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. For questions and to obtain permission numbers, please contact Elizabeth Futrell ([elizabeth.futrell@duke.edu](mailto:elizabeth.futrell@duke.edu)) or 919-668-3400. Permission is required for enrollment during summer sections 43 and 44; and for fall section 41. (Not offered during summer section 43). Enrollment for other sections will be on a first come/first served basis effective summer 2021. Enrollment Max: 4. Credit: 4. *Cameron Taylor, MD, Elizabeth Malinzak, MD, Grace McCarthy, MD, and Staff*

**ANESTH-441C. Subinternship in SICU.** This course is designed to broaden the student's knowledge and experience in managing critically ill surgical patients. Under supervision, students function as sub-interns in the Surgical Intensive Care Unit (SICU) in 6 West DMP. Students are assigned their own patients and actively participate in daily rounds as part of the SICU team. The ICU Fellows provide lectures on multiple aspects of critical care. Students take call one night in four and work on a one-on-one basis with SICU house staff in the supervised management of

critically ill patients. There is emphasis on teaching of procedures and techniques necessary for the management of critically ill patients including vascular access, airway management, hemodynamic assessment and monitoring, cardiovascular resuscitation and use of vasoactive drugs, ventilator management, prevention and management of nosocomial infections, and ethical decision making in ICU. Students are formally evaluated by the SICU house staff and the attending physician. C-L: SURGERY 441C. Credit: 5. Enrollment: max 2. *Christopher Young, MD; Amy Alger, MD; Suresh Agarwal, MD; Kelli Brooks, MD; Joe Fernandez-Moure, MD; Krista Haines, MD; Taylor Herbert, MD; George Kasotakis, MD; Nancy Knudsen, MD; Vijay Krishnamoorthy, MD; Nitin Mehdiratta, MD; Sean Montgomery, MD; Jamie Privratsky, MD; Lisa Pickett, MD; Susan Rowell, MD; Vanessa Schroder, MD; Arturo Suarez, MD; Steven Vaslef, MD, PhD; Cory Vatsaas, MD; and Paul Wischmeyer, MD*

**ANESTH-445C. Physiology & Medicine of Extreme Environments.** Advanced topics in the physiology and medicine of: altered ambient pressure, immersion, gravity, temperature, breathing gas composition and hibernation. Environments considered include: diving and hyperbaric medicine; 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, simulated dive and flight (optional). Reading: *The Biology of Human Survival Life and Death in Extreme Environments*, Claude A Piantadosi (author) Prerequisites: Human anatomy and physiology. Attendance, either on-line via webex or in person is MANDATORY unless otherwise approved by the course director, in order to receive credit. Examinations are open notes / open book short essay. The course will meet weekly on Thursday evenings from 5:00pm until 7:30pm beginning in January, in the Hyperbaric Center Library (room 0584). Basement, White Zone, Bldg. CR II. For more information, contact Dr. Bruce Derrick: email [bruce.derrick@duke.edu](mailto:bruce.derrick@duke.edu). Email permission of instructor is required. Credit: 1, Non-Direct Patient Care credit. Enrollment: max 15, 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 Elizabeth Futrell ([elizabeth.futrell@dm.duke.edu](mailto:elizabeth.futrell@dm.duke.edu)). Please contact Dr. Roy 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 Clyde Meador (clyde.meador@va.gov). Credit: 4. Enrollment: max 2, min 1. *Lance Roy, MD and Arun Ganesh, MD*

## Community and Family Medicine

### Clinical Science Electives

**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 at Pickens or North Duke Street. 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 is 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. *Brian Halstater, MD; and Nancy Weigle, MD*

**COMMFAM-403C. Community Clinic Leadership Elective - Holton Clinic.** Over the course of the both semesters students will provide leadership to the DSOM Holton Clinic, operating at Holton Wellness Center from 5:30-9:30pm on Fridays. Under the supervision of a clinician, students will lead the clinical team through overseeing the care of patients, developing care management plans, and supervising MS1s. Students will be responsible for weekly operations of the clinic, such as scheduling students, follow-up with patients, and coordinating with clinic staff. Additionally, students will define goals for learner development and patient care, and engage in quality improvement that impact learners (i.e. developing teaching modules). Offered to approved 3rd and 4th year medical students. Third year students must obtain approval to enroll from their third year mentor. Third year students will receive one clinical credit toward their fourth year upon successful completion. NOTE: Students may only sign up for the Holton Clinic or the Fremont Clinic. Students may not enroll in both courses. This is a longitudinal course. A grade of "Z" will be entered in the fall term and credit will be awarded in the spring term. Credit: 1; Enrollment Max.: 6. Prerequisite: Permission of instructor is required. Course is graded "Credit or No Credit". *Virgil Mosu, FNP-C and Michelle Lyn, MBA, MHA*

**COMMFAM-404C. Community Clinic Leadership Elective - Fremont Clinic.** Over the course of the both semesters students will provide leadership to the Fremont Clinic, operating at Fremont Clinic from 7:30am-1:30pm on Saturdays, once a month. Under the supervision of a clinician, students will lead the clinical team through overseeing the care of patients, developing care management plans, and supervising MS1s. Students will be responsible for monthly operations of the clinic, such as scheduling students and preceptors and handling any clinic supplies needed. Additionally, students will define goals for learner development and patient care, and engage in quality improvement that impact learners (i.e. developing teaching modules). This course is offered to approved 3rd and 4th year medical students. Third year students must obtain approval to enroll from their third year mentor. Third year students will receive one clinical credit toward their fourth year upon successful completion. NOTE: Students may only sign up for the Holton Clinic or the Fremont Clinic. Students may not enroll in both courses. This course is considered longitudinal. A "Z" grade and zero credit will be entered for the fall term. Credit (CR) will be awarded with one credit upon successful completion during the spring term. Credit: 1; Enrollment Max. 6. Prerequisite: Permission of instructor is required. Course is graded "Credit or No Credit". *Barbara Sheline, MD*

**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 four-week 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, Dennis Darcey, MD, Carol Epling MD*

**COMMFAM-433C. Community Health.** This elective introduces students to the concepts and practice of community-engaged and population health improvement. 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 University Health System serves communities through collaborative, innovative, interdisciplinary clinical services, educational programs, and applied research. By allowing students to participate in actual programs, 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 activities ongoing at the time of the elective, each student's experience 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](mailto: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 Jan Willis ([jan.willis@duke.edu](mailto:jan.willis@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: 1. *Anh Tran, PhD, MPH, Course Director*

**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. *Brian Halstater, 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); and Medical Information Terminologies/Taxonomies (e.g. SNOMED). For more information about the course, students should contact the Duke Center for Health Informatics, Vivian West, PhD via email at [vivian.west@duke.edu](mailto:vivian.west@duke.edu), or by phone, 919-668-0189. Offered during spring section 42 only. Permission is required. 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 to Dr. Caroline Rao is the course director and may be reached at [caroline.rao@duke.edu](mailto:caroline.rao@duke.edu) or 681-3590 Secondary contact: Jessica Braddock, ([jessica.braddock@duke.edu](mailto:jessica.braddock@duke.edu)). This course not offered during summer term or fall 41. Credit: 2. Enrollment: max 1. *Caroline Rao, MD; Adela Cardones, MD; Sabrina Shearer, MD; Adam Brys, 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 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 lectures 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, and a written case review. Students are to report to the Dermatology Clinic, VA medical center 8A clinic on 8:30 a.m. on the first day of the rotation for orientation. NOTE Students enrolled in DERMATOL 450C must have VA computer access. Students are responsible for contacting Clyde Meador at [clyde.meador@va.gov](mailto:clyde.meador@va.gov) no less than 60 days from the first day of the section in which they are enrolled. Dr. Caroline Rao is the course director and may be reached at 681-3590 or 970-9601. 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 41/42Credit: 4. Enrollment: max. 3, except where otherwise indicated. Sole Enrollment. Students may not enroll in any other daytime courses while enrolled in this course. *Caroline Rao, MD, Erin Lesesky MD, Sabrina Shearer MD, Megan Jamison MD, Rabina Walsh, MD as well as other faculty*

## Free Time

## Clinical Science Electives

**FREETIME-450C. Free Time.** Students with no classes scheduled for a particular section should sign up for free time.



# Independent Academic Development

## Clinical Science Electives

**IAD-401C. Year 4 Independent Academic Development.** This status is a semester term-based, noncredit-bearing enrollment status while completing a scholarly experience. It can be elected up to three terms. This status enables a student to explore various aspects of academic medicine, including scholarly activity. Students may pursue independent academic development resulting in poster and platform presentations at regional and national academic meetings, authorship of journal articles, and participation in existing clinical projects. An application consisting of a description of your scholarly project and approval by your Advisory Dean is required. A brief report to the advisory dean on the progress of the project is required at the end of each semester. Full-time student status is maintained during this enrollment, and the student is eligible for the benefits of enrollment, including loan deferment, eligibility for student health services and insurance, and financial aid for living expenses. Students may not be enrolled in any other course work while enrolled in this status. A continuation fee of \$500 per term is charged for this status.

## Interdisciplinary

### Clinical Science Electives

**INTERDIS-400C. Independent Study.** Independent Study is a four-week term-based, non-credit bearing enrollment status used when the student is engaged in medical education-related activity that is relevant to the degree (e.g. structured USMLE preparation, medical volunteerism, internship at organization related to training). An application consisting of a brief description of the activity and advisory dean approval is required of fourth year students. A brief report to the advisory dean on the progress of the activity is required at the end of each four-week section. The Independent Study option for third year students is included on the 3rd year registration form for those students taking the board preparation course. The four-week study period must be approved in advance by the student's third year mentor, study program director, and mentor. The four-week period for study time is not guaranteed. Students enrolled in Independent Study are eligible for benefits of insurance, but are not eligible for financial aid for living expenses. Completion of the Independent Study form and permission of advisory dean is required in order to be enrolled. Approved enrollments will be processed by the Registrar's Office upon receipt of the completed Independent Study form.

**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 courses build on the clinical environment and vice versa. Offered summer 42 (minimum of 5 students/no drops); 43, and 44; fall 41, 42, and 43; spring 41, 42, and 44. The course includes in-person learning every Friday from 12-4pm. The 4th week of Sum 44 and Fall 43, class will be Thurs., 8am-12pm. 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 1 absence will be excused per student. Students requiring > 1 absence will need to drop the course and retake at a later date. Primary Contact Dr. Sharon McCartney @ Sharon.McCartney@duke.edu. Credit/No Credit. Enrollment max: 18; min: 4. Course Faculty: *Sharon McCartney, MD; Mitchell Black, MD; Sandy An, MD*

**INTERDIS-402C. Introduction to Healthcare Markets and Policy for Practitioners.** 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 case studies, small group discussion, and visiting faculty lecturers from the Duke-Margolis Center and Duke University's Fuqua School of Business. The 90-minute sessions will take place on weekday evenings in the Trent-Semans Center, once per month from September to April. Students are expected to attend or view a recording (with written summary) of 9/9 sessions. Student may utilize the "online view and review" option no more than three times. For more information, please contact Don Bradley (don.bradley@duke.edu). Credit: 1, Non-Direct Patient Care Credit. Enrollment max: 115; min: 10. Note: credit will be awarded in the spring term. *Don Bradley, MD*

**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 5:15p - 7:15p. For questions, please contact Dr. Quaranta via email, brian.quaranta@duke.edu. Credit: 1, Non-Direct Patient Care credit. Enrollment Max.:10; 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 at the local, regional, national and international level, as well as during their daily efforts. The course will include presentations from local and international healthcare and non-healthcare leaders addressing issues physician leaders will face daily and in times of crisis. Course schedule: - 8 week course; meets once a week (Tuesdays, 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. Enrollment Max.: 50; Min.: 10. Credit: 1. Course Directors: *Dean Taylor, MD and Joe Doty, PhD*. Faculty: *Cecily Peterson, MD; Adia Ross, MD; Tony Fuller, MD; Fatima Syed, MD; Chan Park, MD; Lee Diehl, MD; Jocelyn Wittstein, MD; Tally Lassiter, MD; Walter Lee, MD; Diana McNeill, MD; Jon Andrews, MD with guest speakers.*

**INTERDIS-407C. 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-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 and religion 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 Dr. Clements via email ([dennis.clements@duke.edu](mailto:dennis.clements@duke.edu)) or 684-7790. Secondary 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 fourth year elective 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 10 students. *Dennis Clements, MD/PhD*

**INTERDIS-423C. Honduras Trip.** A 10-day trip to Honduras is planned to begin the end of April with approximately 15 students invited. INTERDIS 422C is a prerequisite for this trip. A certain number of students with Spanish fluency are needed for the trip. Those traveling to Honduras will visit a local Honduran hospital and additionally provide medical care to patients in the Gracias area during 6 days of the trip. A trip to Copan and an indigenous Mayan community is also planned. There is a \$3000 fee that is required for this course and will be charged upon enrollment. For more information and permission, please contact Dr. Clements at 684-7790 or email, [Dennis.Clements@duke.edu](mailto:Dennis.Clements@duke.edu). You may also direct questions to Dr. Rosa Solorzano, [Rosa.Solorzano@dm.duke.edu](mailto:Rosa.Solorzano@dm.duke.edu). This elective will not be open the MS4 students due to the dates of the trip, which occur after the MS4 spring calendar end date. Third year medical students are eligible to enroll, however, third year students MUST obtain permission from their mentor, study

program director, and advisory dean, (Prior to the trip) to be away for 10 days. **ORIENTATION AND SELECTION FOR THIS TRIP TAKES PLACE IN OCTOBER THROUGH A SEPARATE EMAIL REQUEST.** For information concerning spring trip dates, please reach out to Dr. Clements. Permission of the instructor is required for the trip. Credit 1. Enrollment up to 15. Instructor - *Dennis Clements, MD/PhD*

**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 and 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. As part of this course, medical students will participate in an ACLS and/or PALS provider course. For more information, students should contact Dr. Aimee Chung (aimee.chung@duke.edu) or Dr. Stephen Bergin (stephen.bergin@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 SOMCapstone@dm.duke.edu. Credit: 4. Enrollment max. 125. *Aimee Chung, MD and Stephen Bergin, MD*

**INTERDIS-470C. MSTP Clinical Experience.** Clinical experience for MSTP student's only. 0 credit.

**INTERDIS-475C. Clinical Experience.** This course is designed for students that elect to explore clinical experiences while enrolled in dual degree programs or the Community Clinic Leadership electives at the Fremont or Holton clinics at Duke. This course is for students that wish to refresh their clinical skills in a patient setting. This course is not for students in the Medical Scientist Training Program (MSTP). 0 credit.

## Medicine

### Clinical Science Electives

**MEDICINE-401C. Internal Medicine Sub-Internship (Duke/VA).** 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 or the Durham VA. These services include the general medicine services at both 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 are required. Failure to do so will result in a grade of Incomplete ("I") or a Withdrawal ("W") may be assigned. Please contact \*\*\* (TBD) at 681-5258 or via email at \*\*\* (TBD) for more information. Course is not available for visiting medical students. Credit: 5. Enrollment: max: varies by term. *Jenny Van Kirk, MD, Poonam Sharma, 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. Credit: 5. Enrollment: max 1. *Richard Riedel, MD and Medical Oncology staff*

**MEDICINE-404C. Cardiac 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 cardiovascular disease. (2) How Goals Are Achieved: Students are assigned to the Duke CCU or to a cardiology inpatient service at Duke, and, in concert with the house staff, cardiology fellows, and senior staff attendings, work up and manage patients admitted to these various services. They also participate in 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 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. Prerequisite: Successful completion of an accredited internal medicine clerkship. Credit: 5. Enrollment: max 2. *Anna Lisa Chamis, MD/FACC 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. Night call occurs every third night. 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. Credit: 5. Enrollment: max 3. *Katie Young, MD and critical care staff*

**MEDICINE-406C. Intensive Care Medicine Sub-Internship (Durham VA Hospital).** (1) Course Goals: Primary - To provide training in clinical, physiologic, and pharmacologic principles of the care of the critically ill. Secondary - To develop students' skills in performance and interpretation of diagnostic procedures. (2) How Goals Are Achieved: Under the supervision of senior assistant residents, the pulmonary fellow and the critical care attending physician, students function as sub-interns and are responsible for patient work-ups and daily bedside presentations. Students are given responsibilities for procedures and decision-making in direct proportion to the development of their patient management skills. Daily radiology and bedside attending rounds stress an integrated physiologic approach to the management of critically ill patients with emphasis on triage, resuscitation, acute respiratory care, hemodynamic monitoring, acid-base balance, nutritional support, palliative care, patient safety, and end-of-life care. Each student is provided a document linking selected readings that supplement the didactic and bedside discussions on diagnosis, pathophysiology, and recognition and management of critical illness. The student on-call schedule is every fourth night for the duration of this four-week course. The student registered for MEDICINE 406C may drop the course up to one month before the start date. After that time, the student should arrange for a replacement if dropping the course. (3) Methods of Evaluation: Student evaluations are done by the fellows and faculty attending on the MICU and are based on observed performance. For more information, please email [martha.carraway@va.gov](mailto:martha.carraway@va.gov). Secondary contact: Dr. Karen Welty-Wolf, 684-4938 or via email at [welty001@mc.duke.edu](mailto:welty001@mc.duke.edu). Students are to meet in the VA MICU's MD workroom for orientation by the on-service fellow or attending on the first day of the rotation at 0800 a.m., 5A (5th floor A wing), Durham VAMC, after emailing the course director at least two weeks before as a reminder of the start date. NOTE: Students must contact the course director at least 4 weeks before the first day of their scheduled rotation in order to have the allotted time necessary for the VA to get them back into the system. Each student rotating through Medicine 406C must complete the required VA "paperwork" (contact Clyde Meador at [clyde.meador@va.gov](mailto:clyde.meador@va.gov)) no less than 60 days from the first day of the section in which he/she is enrolled. Credit: 5. Enrollment: max 1. *Martha Carraway, 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

**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 will be emphasized. 1) Procedures including thoracentesis, paracentesis, and lumbar puncture through participation and direct observation, simulation, and viewing of procedure videos. 2) Management of inpatients on the Hospital Medicine service. 3) Overnight patient care with Hospital Medicine attendings with the opportunity to participate in 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 [saumil.chudgar@duke.edu](mailto:saumil.chudgar@duke.edu) for permission to enroll. Enrollment Max.: 2. Credit: 2. *Saumil Chudgar, MD, MS*

**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) 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 919-660-6746 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 if in 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; Kevin Shah, MD; Sharon Rubin MD, Lynn Bowlby 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, Non-Alcoholic 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 919-681-2863 or via email at will.yancy@duke.edu. Credit: 4. Enrollment: 1. Faculty: *William Yancy, MD/MHS, Eric Westman, MD/MHS; Dana Portenier, MD; Sarah Armstrong, MD; Andrea Coviello, MD; Anna Mae Diehl, MD; Manal Abdelmalek, MD; Andrew Spector, 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 once weekly from 5:00p - 7:30p. Students should contact Dr. Saumil Chudgar at saumil.chudgar@duke.edu to obtain a permission number. Credit: 1. Enrollment: max 12, min 6. *Saumil Chudgar, MD, MS*

**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) location. 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 ([mithu.maheswaranathan@duke.edu](mailto:mithu.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 2021, we will conduct the course via Zoom, so students will be able to participate in live sessions even while traveling. 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; max: 35. To enroll after the course has filled, you will need special permission from the Course director, please contact Dr. John Roberts at [john.roberts@duke.edu](mailto:john.roberts@duke.edu) to do so. Course Faculty: *John Roberts, MD (Course Director) and Dr. Michael Berkoben*

**MEDICINE-425C. Clinical Coagulation.** (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 inpatients 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. *Richard Riedel, 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. This 2 week, 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 multi-disciplinary teamwork will be emphasized. A schedule will be sent to you by email prior to the first day. For more information and permission to join the class contact the course director Dr. Alisha Benner and the educational admin Jennifer Bowen via email at [alisha.benner@duke.edu](mailto:alisha.benner@duke.edu) & [jennifer.bowen@duke.edu](mailto:jennifer.bowen@duke.edu). Credit: 2. Enrollment max: 2. *Alisha Benner, MD; David Casarett, MD; Farr Curlin, MD; Anthony Galanos, MD; Megan Jordan, MD; Kristin Meade, MD; Delani Mann, MD; Robin Turner, MD; Wil Santivasi, MD; Juan Pagan-Ferrer, MD; Jennifer Gentry, DNP; Tara Coleman, PA and Ashley Toscano, LCSW*

**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, Susan Spratt, MD and endocrinology staff*

**MEDICINE-430C. Pulmonary Medicine.** MEDICINE-430C. Pulmonary Medicine. (1) Course Goals: Primary - To provide training in clinical aspects of pulmonary medicine. The primary diseases emphasized include asthma, chronic obstructive lung disease, pulmonary vascular diseases including pulmonary embolus, acute respiratory failure, hypersensitivity, interstitial and immunologic lung diseases and pulmonary manifestations of systemic illnesses, i.e., sarcoid, scleroderma, cystic fibrosis, etc. Secondary - To provide experience with pulmonary laboratory techniques including pulmonary function testing, cardio-pulmonary exercise testing, chest radiology, and bronchoscopy. (2) How Goals Are Achieved: Students are assigned to the Pulmonary Inpatient and Consult Services at Duke Hospital. They have primary responsibility for workup and presentation of selected patients on these services. All patients are presented and followed at daily rounds with fellows and faculty. Students are expected to attend the following conferences at Duke Hospital during their rotation unless clinical duties supersede: Tuesday Fellows Lecture series, Wednesday Chest Conference; and Thursday ILD conference. Students are otherwise encouraged to attend General Medicine Noon Conferences. (3) Methods of Evaluation: Formative feedback: It is expected that students seek out personalized feedback at least weekly to bi-monthly with both the fellow and faculty on the rotation. Also, students will take a pre and post-test (20 questions) on Pulmonary Medicine. This will be strictly for self-assessment and will not be factored into their final grade. Summative feedback: Student summative evaluations are done by fellows and faculty assigned to the Consult Services during the period of the course and is based on observed performance in regards to patient presentations, participation during rounds, and oral presentations on self-selected pulmonary topics Questions should be directed to Tina Van Nevel, via email at [tinavannevel@duke.edu](mailto:tinavannevel@duke.edu) or by phone at 919-684-0435. Dr. Marshall can be reached via email at [Harvey.marshall@duke.edu](mailto:Harvey.marshall@duke.edu). Credit: 4. Enrollment: min 1, max 1. *Harvey Marshall, MD and pulmonary 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 consists 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, immuno-deficiencies 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. 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; Stephen Bergin, MD and Christopher Cox, 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 a staff member as preceptor with whom to work in the Hematology/Oncology clinic one to three half- days per week in clinic, depending on the student's schedule and the availability of physicians in clinic. Alternatively, the student may work with 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 2. *Richard Riedel, 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 Jill Rimmer at 684-2819 or via email at [jill.rimmer@duke.edu](mailto:jill.rimmer@duke.edu). Credit: 4. Enrollment: max 2. *Cecelia Zhang, MD and GI department staff.*

**MEDICINE-437C. Rheumatology.** 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 through multiple rheumatology clinics, learning how to manage complex disease in an outpatient environment. Inpatient consult time may be available upon request. Students will take part in the division's didactic and educational activities, such as Journal Club. Other educational modalities such as instructional videos and podcasts will 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". *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. Clinical Hematology and Oncology Consults (Duke or 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 hematologic 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 or eight 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. *Richard Riedel, 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 associated 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. Credit: 1 Non-Direct Patient Care Credit. Maximum Enrollment: 12; Minimum 4. *Anthony N. Galanos, MD and Paul A Riordan, 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. For more information and/or to obtain a permission number, please call Dawn Sikes at 668-6053 or email [dawn.sikes@duke.edu](mailto:dawn.sikes@duke.edu). Credit: 4. Enrollment max. 4. *Micah McClain, MD/PhD*

**MEDICINE-442C. 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 consults 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 presentation and assessment of the patient's problem. 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](mailto:grant007@mc.duke.edu). Secondary Contact: Diane Mangum, 919-681-3815. Credit: 4. Enrollment: max 1. *Augustus Grant, M.B., CH.B., PhD; Ruth Greenfield, MD; 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](mailto:richa.agarwal@duke.edu), or by phone, 919-684-3854. Secondary Contact: Patti Gentry, [patti.gentry@duke.edu](mailto: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](mailto:dawne.t.smith@duke.edu). Prerequisite: none. Credit: 4. Enrollment: max. 5, (unless otherwise noted). *Anna Lisa Chamis, MD/FACC; 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 9:00 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 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; 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 Tuesday evenings 5:15pm - 7:15pm. 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. Enrollment Max.: 14;



Enrollment Min.: 8. Credit: 1, Non-Direct Patient Care credit. Offered during fall section 82.  
*Jeffrey P. Baker, MD/PhD; Margaret Humphreys, 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 faculty of the Division of Geriatric Medicine. The student works with faculty, fellows, and house staff in several settings involved in the care of the geriatric patient. These include the Duke Geriatric Evaluation and Treatment Clinic, Geriatrics Consultation Service (Duke Hospital and Duke Regional Hospital), The Forest at Duke Clinic and Long-Term Care, Community Living Center (Durham VA Medical Center), the VA Perioperative Optimization of Senior Health, GeroFit 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 older adults. Specific clinical problems that students encounter include dementia, delirium, depression, polypharmacy, multi-morbidity, advanced care planning, gait instability and falls, urinary incontinence, pressure sores, and chronic pain. The student participates actively in the work-up and management of patient's 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 and the papers submitted during the rotation and at the conclusion of the rotation. 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. Liza Genao at 919-970-8965 to notify her 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 call the Dr. Genao immediately to notify her 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. Course contact: Dr. Liza Genao, (liza.genao@duke.edu). Secondary contact: Dr. Serena Wong (serena.wong@duke.edu). Credit: 4. Enrollment: max 2. *Liza Genao, MD; Serena Wong, DO*

**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 Wednesday evenings, 5:15pm, -7:15pm. Credit: 1. Enrollment Max.: 16; Enrollment Minimum: 8. *Farr A. Curlin* ([farr.curlin@duke.edu](mailto:farr.curlin@duke.edu)), MD; *Marjorie Miller* ([marjorie.miller@duke.edu](mailto:marjorie.miller@duke.edu)), *Joshua Briscoe*, MD

**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. Priority given to MS3 students; 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; virtual during spring 2021. Wednesday Evenings, 5:15pm - 7:15pm. *Sneha Mantri*, MD

## Neurology

### Clinical Science Electives

**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.

**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: 2 (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 16 weeks, on Tuesday evenings, 5:30pm - 7:30p. 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. 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

### Clinical Science Electives

**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 3rd-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. *Course Director: Steven Cook, MD; John Sampson, MD, PhD (Chairman); Muhammad Abd-El-Barr, MD, PhD; Allan Friedman, MD; John Barr, MD; Patrick Codd, MD; Peter Fecci, MD, PhD; Herbert Fuchs, MD, PhD; Rory Goodwin, MD, PhD; Oren Gottfried, MD; Michael Haglund, MD, PhD; Erik Hauck, MD; Isaac Karikari, MD; Jordan Komisarow, MD; Nandan Lad, MD, PhD; Christopher Shaffrey, MD; Brandon Smith, MD; Derek Southwell, MD, PhD; Khoi Than, MD; Eric Thompson, MD; Dennis Turner, MD; Matthew Vestal, MD; Chester Yarbrough, MD; and Ali Zomorodi, MD*

**NEUROSUR-402C. Intermediate Clinical Neurosurgery.** 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; John Sampson, MD, PhD (Chairman); Muhammad Abd-El-Barr, MD, PhD; Allan Friedman, MD; John Barr, MD; Patrick Codd, MD; Peter Fecci, MD, PhD; Herbert Fuchs, MD, PhD; Rory Goodwin, MD, PhD; Oren Gottfried, MD; Michael Haglund, MD, PhD; Erik Hauck, MD; Isaac Karikari, MD; Jordan Komisarow, MD; Nandan Lad, MD, PhD; Christopher Shaffrey, MD; Brandon Smith, MD; Derek Southwell, MD, PhD; Khoi Than, MD; Eric Thompson, MD; Dennis Turner, MD; Matthew Vestal, MD; Chester Yarbrough, MD; and Ali Zomorodi, MD*

**NEUROSUR-404C. Neuro-Oncology.** This 4-week advanced rotation will provide medical students an opportunity to experience to 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. Students will develop a clinical foundation in the care of brain tumor patients and will have the chance to care of patients during all times of the illness trajectory (at diagnosis, during treatment, stable disease, at tumor progression, and transitioning to palliative care). Attendance at weekly neuro-oncology tumor board, weekly neuropathology consensus conference, monthly integrative neuro-oncology conference, and monthly research educational meeting are encouraged for all students in this rotation. For more information, please contact Dr. Peters via email at [katherine.peters@duke.edu](mailto:katherine.peters@duke.edu) or you may contact her assistant, Kelly Seagroves at [kelly.seagroves@duke.edu](mailto:kelly.seagroves@duke.edu) or by phone, 919-684-6173. Permission is required. Credit: 4 credits. Enrollment max.: 1 student. *Course Director: Katherine Peters, MD PhD FAAN Other faculty: Carey Anders, MD David Ashley MD, Patrick Codd MD, Steven Cook MD, Annick Desjardins MD, Peters Fecci MD, Allan Friedman MD, Henry Friedman MD, Margaret Johnson MD, Mustafa Khasraw, MD, Daniel Landi MD, Giselle Lopez, MD, Justin Low, MD, and David Vanmater, MD. Students will also interact with staff in the Preston Robert Tisch Brain Tumor Center, Neuropathology faculty, and Neuro-Oncology Fellows.*

## Obstetrics and Gynecology

### 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-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. *Brittany Davidson, MD; Andrew Berchuck, MD; Brittany Davidson, MD; Laura Havrilesky, MD; Paula Lee, MD; Becca Previs, MD; Haley Moss MD, Angeles Alvarez Secord, MD; Georgia Smith; and gynecologic oncology fellows*

**OBGYN-407C. Female Pelvic Medicine and Reconstructive 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 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. Participation in the operative care of Urogynecologic patients is desired. 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. Credit: 5. Enrollment: max 1. Contact: [Alison.weidner@duke.edu](mailto:Alison.weidner@duke.edu). Enrollment Max. 1; Credit: 5. Prior to the first day, the student should contact Cynthia Paylor, Duke Urogynecology, 5324 McFarland Drive, Suite 310, Duke Medicine Patterson Place, Durham, NC 27707; Phone: 919-401-1001. Students meet at the Patterson Place location at 8:30am on the first day of the rotation. *Alison Weidner, MD; Cindy Amundsen, MD; Matthew Barber, MD/MHS; John Jelovsek, MD; Amie Kawasaki, MD; Nazema Siddiqui, MD; Anthony Visco, MD; and urogynecology fellows*

**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; Andrew Rivara, MD; and Craig Sobolewski, MD. Contact: [Arleen.song@duke.edu](mailto:Arleen.song@duke.edu)*

**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. Credit: 5. Enrollment: max 1. *Nicole Kerner, MD; Aimee Ferrindino, MD; Beverly Gray, MD; Liz Deans, MD; Bethany Beasley, MD/MPH; Lisa Muasher, MD; Evan Myers, MD/MPH; Newton Pleasant, Jr., MD; Jonas Swartz, MD; Vanisha Wilson, MD; and Megan J. Huchko, MD/MPH. Contact: Nicole.kerner@duke.edu Contact: Nicole.kerner@duke.edu*

**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 6:45AM on the rotation's first day (rounds begin at 7:10AM). For more information, please contact Dr. Anne Honart at [anne.honart@duke.edu](mailto:anne.honart@duke.edu). Secondary Contact: Cescille Gesher ([cescille.gesher@duke.edu](mailto:cescille.gesher@duke.edu)). Credit: 5. Enrollment: max 2. *Dr. Anne West Honart, MD and Brenna Hughes, MD*

## 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. Students are required to view pre-recorded lectures and complete self-assessments and should report to the Hudson Building, Room 4588, 4th floor, once a week for an in-person case discussion (time determined at the start of the session). This course is offered during sections Spring 41 and 42; students are expected to view all pre-recorded lectures and attend at least 6 of the in-person case discussions, over the 8-week period. For more information, students may contact Crystal Smith ([crystal.wright@duke.edu](mailto:crystal.wright@duke.edu)) Credit: 1. 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 Crystal Smith (crystal.wright@duke.edu). 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, brittany.jones244@duke.edu. Credit: 1 or 2. Enrollment: max 2. *Sharon Freedman, MD; Edward Buckley, MD; Laura Enyedi, MD; Tanya Glaser, MD, and Grace Prakashaporn, MD*

## Orthopaedics

### Clinical Science Electives

**ORTHO-421C. Fractures/Musculoskeletal Trauma.** Students participate in the emergency management of patients through the Duke Emergency Room. Principles of fractures and trauma are given during emergency room assignment. Requirements are attendance at one outpatient clinic per week, two nights per week on call in the emergency room, and conference attendance. 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. *Elizabeth Hubbard, MD; Robert Fitch, 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 students must contact the Visiting Student Coordinator, [scott.campbell@duke.edu](mailto:scott.campbell@duke.edu), to inquire about the process for applying. *Elizabeth W. Hubbard, 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. *Dean Taylor, MD; Ned Amendola, MD; Oke Anakwenze, MD; Richard Mather, MD; 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; Richard Goldner, 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*

**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 Fitch, MD; and Robert Lark, MD; Benjamin Alman, MD, Elizabeth Hubbard, MD, and Anthony Catanzano, Jr., MD*

# Otolaryngology

## Clinical Science Electives

**OTOLARYN-220C. Surgical Treatment of Diseases of the Head and Neck, Ears, Nose and Throat.** This otolaryngology, head and neck surgery selective is designed to introduce the second year medical student to the medical and surgical aspects of comprehensive head and neck surgery, including: pediatrics, otology, laryngology, rhinology, benign and malignant disease of the neck (including thyroid), benign and malignant disease of the upper aerodigestive tract, microvascular reconstruction, and craniomaxillofacial trauma. There will be didactic instruction with patient care exposure in the clinic, emergency department and operating room settings. Credit: 2. Enrollment Max: 3. Location: Duke North Ward 6300 - 6:30 a.m. Contact: Please reach out to Lori Allsbrook (lori.allsbrook@duke.edu) and Dr. Janet Lee (janet.w.lee@duke.edu) one week prior to the rotation start date to confirm the exact time and place to meet. *Russel Kahmke, MD*

**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 taken care of during the subinternship). 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*

**OTOLARYN-402C. Communication Sciences within Otolaryngology - Head & Neck Surgery.** The purpose of this course is to provide exposure to the multidisciplinary teams that play an integral role in the care of Otolaryngology patients. The complex interplay of disease processes with smell, vision, hearing, balance, speech, swallowing, and physical appearance make Otolaryngology - Head & Neck Surgery a unique subspecialty. This elective allows a more in-depth interaction with our colleagues in audiology, vestibular therapy, speech and language pathology, nutrition, and care management for both adults and children. The elective will be graded "Credit/No Credit." If you have questions, please email Dr. Kahmke, russel.kahmke@duke.edu. Enrollment Max. 2; Credit: 2. *Russel Kahmke, MD*

**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 15-20 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. For more information on where to report or basic questions, please refer to the OHN consult pager, 970-1320 or contact Lori Allsbrook ([lori.allsbrook@duke.edu](mailto:lori.allsbrook@duke.edu)) or 919-681-6588. Credit: 4. Enrollment: max: 2. *Janet Lee, MD*

## Pathology

### Clinical Science Electives

**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](mailto: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. Rami Al-Rohil at least two weeks prior to starting the rotation at [rami.alrohil@duke.edu](mailto:rami.alrohil@duke.edu). Secondary contact (staff assistant): Jawanna Bell ([jawanna.bell@duke.edu](mailto:jawanna.bell@duke.edu)). Students meet on the first day in the pathology department at 9:00 a.m. Credits: 4. Enrollment: max 2. *Rami Al-Rohil, MBBS and staff*

## Pediatrics

### Clinical Science Electives

**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 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. Dana Clifton (dana.clifton@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. Secondary Contact: Melissa Minton, melissa.minton@duke.edu. Credit: 5. Enrollment: Max: 4. *Dana Clifton, MD; Samrat Das, MD and faculty.*

**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 majority of the time in the outpatient setting and the interested student will be exposed to the inpatient setting. 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; Richard Noel, MD/PhD.*

**PEDS-403C. Med-Peds Ambulatory Rotation.** - Full immersion experience in outpatient adult and pediatric medicine. - Students will see patients of all ages for a variety of visit types (follow-ups, physicals/well child checks, urgent care visits), hone their history and PE skills, formulate assessment and plans for common outpatient problems, gain an understanding of healthcare maintenance/preventive care, experience continuity of care, and learn about community resources in the outpatient setting. Enrollment Max: 1. Credit 3-4. Permission of instructor is required. Students should report to Duke Health Center, 4020 N. Roxboro Street, Durham, NC 27704 on the first day. Please contact Dr. Aimee Chung (aimee.chung@duke.edu) to confirm start time. *Aimee Chung, MD*

**PEDS-404C. Advanced Adolescent Medicine.** This elective will provide medical students with a foundational experience in the care of adolescents and young adults -- a unique blend of acute care, chronic disease management, prevention, and consultative assessments. A distinct priority is placed on effective interpersonal interactions, patient-centered interviewing, and patient education and counseling. Adolescent Medicine by nature is exquisitely multi-disciplinary, and this selective will provide students with a view into the intricacies of such interdisciplinary care across a variety of outpatient settings. Clinical experiences will be complemented by case-based didactic sessions and supervised study. Enrollment Max: 1; Credit. 2. Permission of instructor is required. On the first day of classes, students should meet at Duke Health Center, 4020 N. Roxboro Street. Please contact Dr. Richard Chung (richard.chung@duke.edu) to confirm meeting time. *Richard Chung, MD; Naomi Duke, MD, PhD; John Moses, MD; Nirmish Shah, MD; Betty Staples, MD, Gary Maslow, MD, and Charlene Wong, 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, with particular focus on recent changes in mandated reporting laws that have greatly affected all professionals working with children. 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 2022, classes begin on January 12th. 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 81. Note: If the course enrollment is at maximum capacity and you are interested in enrolling, please reach out to Dr. Narayan. *Aditee Naryan, MD/MPH; Crystal Grant, JD/MSW; and Scott Snider, LCSW*

**PEDS-409C. 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. 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. Students meet on the first day of class in 2W98c Duke South Blue Zone Palliative Care offices at 8:45am - page attending at 970-4357 to verify meeting location. Enrollment max; 2 per four-week block. Schedule determined by course director and Jennifer Bowen. For more information, please contact Jennifer Bowen at 919-668-2362 or [jennifer.bowen@duke.edu](mailto:jennifer.bowen@duke.edu). Credit 2. *Megan Jordan, MD; Other faculty: Margarita Bidegain, MD; Sarah Gall, MD; Karen Jooste, MD; Rose Sharpe, NP; and Ashley Toscano, CSW*

**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. Ellis via email approximately 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. If scheduled, students are expected to attend any required didactic sessions/activities during the entire 4-week block, even if scheduled for fewer than 4 credits. Required activities include simulation and didactic lectures on various mornings (depending on the specific month). If students are unable to attend these sessions, additional assignments must be completed in order to pass the rotation. Students are allowed to ask for 3 off-days during their month (with an additional 2 requests during interview season). These are by no means guaranteed, but every effort will be made to accommodate these requests. Schedule requests for time away must be cleared by the elective course director FOUR weeks

before the start date of the rotation. Permission of the instructor is required for enrollment. 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. Donald Ellis (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. Ellis (donald.ellis@duke.edu) to inquire. Permission is required. Variable Credit: 3-4 credits. Enrollment max: 2. *W. Clay Bordley, MD, MPH; Donald Ellis, MD; James Fox, MD; Emily Greenwald, MD; Mia Mallory, MD, MEd; Rachel O'Brian, MD; MD; Emily Sterrett, MD, MS-CTR; Neel Subramanian, MD; Larissa Truschel, MD, MPH; and Linton Yee, MD.*

**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 Tariq Ali Dinar, (tariq.dinar@duke.edu) if you have questions. Pre-requisite: Permission of instructor is required. Credit: 2; Enrollment max: 1. *Tarig Ali Dinar, MD; Mai El Mallah, MD; Jason Lang, 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, (tariq.dinar@duke.edu). Pre-requisite: Permission of the instructor is required for enrollment. Credit: 3-4; Maximum Enrollment: 1. *Tarig Ali Dinar, MD; Mai ElMallah, MD; Jason Lang, MD; Shatha Yousef, MD; and faculty in the Division of Pulmonary and Sleep Medicine*

**PEDS-420C. Introduction to Pediatric Infectious Diseases.** This two-week course provides an exposure to the evaluation, diagnosis, management, and follow-up of patients with possible infectious diseases. Students will work closely with the pediatric infectious diseases team on the general infectious diseases service, 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 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. Kammy McGann (Kathleen.mcgann@duke.edu). Secondary contact: Dr. Mike Smith (michael.j.smith@duke.edu; 919-684-6335). Students should meet on the first day at Dr. McGann's Office – Room 373, Hanes House. Peds ID fellow pager: 970-7420. Permission is required. Credit: 2. Enrollment Max: 2. *Kammy McGann, M.D. and division faculty*

**PEDS-421C. Pediatric Infectious Diseases - Comprehensive.** This course provides three to four weeks of experience in the evaluation, diagnosis, management and follow-up of patients with possible infectious diseases. Students will work closely with the infectious disease team on

the general infectious diseases service, 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 infectious diseases. There may be an opportunity to spend some time with the transplant infectious diseases team. Students that take this course are not eligible to enroll in PEDS 420C. Dr. Kammy McGann (Kathleen.mcgann@duke.edu). Secondary contact: Dr. Mike Smith (michael.j.smith@duke.edu; 919-684-6335). Students should meet on the first day at Dr. McGann's Office – Room 373, Hanes House. Peds ID fellow pager: 970-7420. Permission is required. Credit: 2. Enrollment Max:3-4. *Kammy McGann, M.D. and division faculty*

**PEDS-424C. Introduction to Pediatric Endocrinology and Diabetes.** Students attend in the Pediatric Endocrine, Diabetes, Lipid, Gender and Insulin Resistance/Obesity Clinics and assume active roles in the evaluation and management of in-patients admitted to the Endocrine Service. Emphasis is placed upon the evaluation of growth and sexual development, thyroid function, Gender care, and diabetes mellitus. Students will complete a pediatric endocrine handout during their rotation, which will cover core topics. Students also participate in a weekly endocrine division conference and monthly diabetes journal club. Students will receive a schedule with their days and clinic locations on the Thursday before their rotation begins. They should email Dr. Robert Benjamin, course director, to confirm their rotation one week prior to their rotation. His contact email is robert.benjamin@duke.edu. Enrollment Max: 1; Credit: 1-2, with 1 credit for every week of the course. *Robert Benjamin, MD; Michael Freemark, MD; Deanna Adkins, MD; Laura Page, MD; and Pinar Gumus, 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 pediatric endocrine handout during their rotation, which will cover core topics. Students also participate in a monthly diabetes journal club and in weekly intra- and interdepartmental endocrine clinical and research 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 week prior to their start of rotation. They should email Dr. Robert Benjamin, course director, to confirm this the week prior to their rotation. His contact email is robert.benjamin@duke.edu. Credit: 3 to 4, with 1 credit for every week of the course. Enrollment: max 1. *Robert Benjamin, MD; Michael Freemark, MD; Deanna Adkins, MD; Laura Page, MD; and Pinar Gumus, 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 understanding 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 919-681-6024. Secondary contact: Dr. Ronald

Goldberg, 681-6024. Students are to meet on the first day at the Neonatal Intensive Care Unit, Duke North, 5th floor. Meet promptly at 7:00 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; Ronald Goldberg, MD; Samia Aleem, MD; Kamlesh Athavale, MD; Eric Benner, MD/PhD; Margarita Bidegain, MD; Trevor Burt, MD; C. Michael Cotten, MD; Jeffrey Ferranti, MD/MS; Rachel Greenberg, MD; Sharla Rent, MD; Brian Smith, MD; David Tanaka, MD; Kirstin Weimer, MD/PhD; 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. Kreissman via email at [susan.kreissman@duke.edu](mailto:susan.kreissman@duke.edu). Prerequisite: Interested students must contact the course director. For questions, please contact Christine Duke ([Christine.g.duke@duke.edu](mailto:Christine.g.duke@duke.edu)) Credit: 4. Enrollment: max 1. *Susan Kreissman, MD; Dan Landi MD; Corinne Linardic MD/PhD; Kristi Pahl, MD; Joanna Robles MD, 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. Dvergsten for the location. The class meets M-F. For more information, please contact Dr. Dvergsten at [jeffrey.dvergsten@duke.edu](mailto:jeffrey.dvergsten@duke.edu). *Jeffrey Dvergsten, 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: 2; 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. Dvergsten in advance to confirm meeting location. The class meets M-F. For more information, students must contact Dr. Dvergsten at [jeffrey.dvergsten@duke.edu](mailto:jeffrey.dvergsten@duke.edu). *Jeffrey Dvergsten, 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 management. 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. While students will receive training in motivational interviewing (MI), an evidence-based communication technique to achieve effective behavior change during this rotation, a familiarity with MI and good communication skills are strongly preferred as the clinical environment is considered an advanced communication skills 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 and discussed with course director during final feedback session. Report to Duke Children's Primary Care Clinic, 4020 Roxboro Road, second level. Students will be required to attend and participate in 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)) and secondary contact support staff Kim Yancey ([Kim.yancey@duke.edu](mailto:Kim.yancey@duke.edu)) Credit: 4. Enrollment: max. 1. *Sarah Armstrong, MD; Naomi Duke MD; Martha Nelson, PA-C; Katherine Caro, PA-C; Jenny Favret, MS, RD, LDN; Stephanie Bryant, MPH, RD, LDN; Heidi Pongracz, MPH, PT; Victoria Smith, PT, DPT, PCS; 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, Apex, 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. For more information, please call the course director, Dr. Zebulon Spector, at 919-681-6772 or by email, [zebulon.spector@duke.edu](mailto:zebulon.spector@duke.edu). Secondary Contact: Dr. Michael J. Campbell, [michael.campbell2@duke.edu](mailto:michael.campbell2@duke.edu), or 919-684-3574. Credit: 4. Enrollment: max 1. *Zebulon Spector, MD; Other faculty: Piers C.A. Barker, MD; Richard J. Boruta, MD; Michael G.W. Camitta, MD; Michael J. Campbell, MD; Michel P. Carboni, MD; Reid*

*Chamberlain, MD; Gregory Fleming, MD; Kevin Hill, MD; Salim F. Idriss, MD/PhD; Andrew Landstrom, MD, PhD; Jennifer S. Li, MD; Andrew McCrary, MD; Angelo Milazzo, MD; Stephen Miller, MD; Patsy Park, MD; Neeta Sethi, MD; Gregory Tatum, MD; McAllister Windom, MD.*

**PEDS-433C. Allergy and Clinical Immunology.** Clinical appraisal and practice in use of methods of diagnosis and treatment of allergic and immunologic disorders including the atopic diseases, immunologic deficiency states, and bone marrow transplantation. 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. An alternate contact is Debra Preddy. You may reach her via email at debra.preddy@dm.duke.edu. Please contact Debbie Preddy at least one week prior to your rotation to set up a meeting to receive information packet and information about where to go on first day Credit: 4. Enrollment: max 2. *John Sleasman, MD (Division Chief), Amy Stallings, MD; Rebecca Buckley, 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. Kansagra (sujay.kansagra@duke.edu) prior to enrollment. Credit: 4. Enrollment: max 2. *Sujay Kansagra, 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. Wigfall at 684-4246 or via email at wigfa001@mc.duke.edu. Credit: 4. Enrollment: max 1. *Delbert Wigfall, 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 Division meeting on Monday at 8:00 a.m. in the Division offices on the first floor of the Old Duke Credit Union (1400 Morreene Rd) on the first day of classes. For more information, contact Dr. Martin at paul.martin@duke.edu, or pager, 970-3758. Secondary contact: Tim Driscoll, 668-1120. Credit: 4. Enrollment: max 2. *Paul Martin, MD/PhD; Joanne Kurtzberg, MD; Tim Driscoll, MD; Suhag Parikh, MD; Vinod Prasad, MD; and Kristin Page, MD*

## Psychiatry

### Clinical Science Electives

**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. 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 or phone at 684-2274. Credit: 5. Enrollment: max 2. *Julie Penzner, MD*

**PSYCHTRY-402C. Cultural Contexts of Substance Use Disorder Treatment.** This course will help students to develop a foundational knowledge in the historical and cultural contexts of substance use, the impact of systemic bias on treatment and criminalization of

substance use disorders, explore the intersection of substance use with wide-ranging medical specialties, and to develop strategies to advocate for the care of patients suffering from SUD through treatment and harm-reduction strategies. Course participants will participate in buprenorphine waiver training (“X waiver”) and will engage in self-reflection and advocacy activities. Maximum Enrollment: 15; Minimum: 4. Credit: 1 Non-Direct Patient Care. Classes will be held once a week, two hours per week, 5:15p-7:15p, Thursday evenings. Classes will be held during the first 8 weeks of the spring (evenings) term, section 81, effective spring 2023. *Nicole Helmke, 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*

**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*

**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). Secondary contact: Bette W. Clack, email, [walke098@mc.duke.edu](mailto:walke098@mc.duke.edu) or phone, 668-6693. 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 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) or Beverly Harris ([beverly.harris@dm.duke.edu](mailto:beverly.harris@dm.duke.edu)), 919-684-7645. 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; Jay A. Baker, MD; Sujata Ghate, MD; Lars Grimm, MD; Karen S. Johnson, MD; Mary Scott Soo, MD; Ruth Walsh, MD; and Sora Yoon, MD; Dorothy Lowell, MD and Michael Taylor-Cho MD*

**RADIOL-403C. Genitourinary Imaging.** The 4th year elective in Genitourinary Imaging (GUI) is designed to educate medical students pursuing a career in urology about the most common procedures within the field of GUI. The students will be involved in: (1) education about the diverse imaging modalities used in GUI; (2) imaging indications and techniques unique to GUI; and (3) review and interpretation of various studies. Documentation skills will be taught. By the end of the rotation, the student should be capable of preliminary interpretation of GU imaging studies. Permission of the instructor is required for enrollment. Credit: 4. Enrollment max: 1. Direct questions about the course to Dr. Leder, [richard.leder@dm.duke.edu](mailto:richard.leder@dm.duke.edu). Secondary contact: Deborah Griffin ([deborah.griffin@duke.edu](mailto:deborah.griffin@duke.edu)). *Richard Leder, MD; Other Abdominal Imaging Faculty*

**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 Debbie Griffin at [deborah.griffin@duke.edu](mailto:deborah.griffin@duke.edu). Students that took Radiol 222C during the second year are not eligible to take RADIOL 404C. Credits: 2. Enrollment max: 1. Course Director: *Jonathan G. Martin, MD. Course Faculty: Nicholas Befera, MD; Brendan Cline, MD; Charles Kim, MD; Waleska Pabon-Ramos, MD/MPH; James Ronald, MD/PhD; Alan Sag MD; Tony Smith, 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 Debbie Griffin at [deborah.griffin@duke.edu](mailto:deborah.griffin@duke.edu). Credit: 2; Maximum enrollment: 2. *Course Directors: Robert French, MD and Jonathan G. Martin, MD. Course Faculty: Pediatric Radiology: Logan Bisset, MD; Abdominal Imaging: Lisa Ho, MD; and Chad Miller, MD; Musculoskeletal Imaging: Robert French, MD; Nuclear Medicine: Terence Wong, MD; and Brandon Howard, MD; Neuroradiology: Michael Malinzak, MD; Interventional Radiology: Jonathan G. Martin MD; Cardiothoracic imaging: Travis Henry 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; Credit: 4. For more information about the course, please contact Debbie Griffin at [deborah.griffin@duke.edu](mailto:deborah.griffin@duke.edu); *Course Director: Jonathan G. Martin, MD. Course Faculty: Nicholas Befera, MD; Brendan Cline, MD; Charles Kim, MD; Waleska Pabon-Ramos, MD/MPH; James Ronald, MD/PhD; Alan Sag MD; Tony Smith, MD; and Paul Suhocki, MD*

**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 dictated 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. An introductory text is available on loan from the pediatric radiology division. 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). Pediatric Radiology Faculty include: *Caroline Carrico, MD (course director); Charles Maxfield, MD Division Chief, Donald Frush, MD, Logan Bisset, MD, Ana Gaca, 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. James Eastwood at (919)684-7466 or via email at eastw004@mc.duke.edu. Secondary contact: Babbie Williams, (919) 684-7406. Due to Covid-19, the course will be virtual for now. Students will be doing virtual readouts. via Webex readouts, and conferences. Students may contact (919-684-7213 to obtain the attendings Webex addresses for readouts. For more information and meeting times, please reach out to Babbie Williams (babbie.williams@duke.edu. Credit: 4. Enrollment: max 2. *James Eastwood, MD and staff*

**RADIOL-429C. 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 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 question please contact Debbie Griffin at deborah.griffin@duke.edu. Credit: 4; Maximum enrollment: 3. Course Directors: *Robert French, MD and Jonathan G. Martin, MD. Course Faculty: Pediatric Radiology: Logan Bisset, M.D.; Abdominal Imaging: Lisa Ho, MD; and Chad Miller, MD; Musculoskeletal Imaging: Robert French, MD; Nuclear Medicine: Terence Wong, MD; and Brandon Howard, MD; Neuroradiology: Michael Malinzak, MD; Interventional Radiology: Jonathan G. Martin MD; Cardiothoracic imaging: Travis Henry 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. A case presentation will be required. There is a test at rotation's end. For more information, please contact Dr. Charles Spritzer via email at [chuck.spritzer@duke.edu](mailto:chuck.spritzer@duke.edu). Secondary Contact: Kisha Young ([kisha.young@duke.edu](mailto:kisha.young@duke.edu)). Credit 4. Enrollment: max. 2. *Charles Spritzer, MD; Caroline Carrico, MD; Drs. R. Lee Cothran, Jr., MD; Clyde Helms, MD; Erin McCrum, MD; Nick Said, MD; and Emily Vinson, 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. The student will function under the guidance of Professor P.L. Ariyananda. The extern would assist with admissions, and day to day care of patients. Outpatient care will also be important. Independence and innovation by the student will be particularly important. *Truls Ostbye, MD, MPH, MBA, PhD.* Credit: 4 Max: 2

# Surgery

## Clinical Science Electives

**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. Graded 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. Kevin Shah at kevin.n.shah@duke.edu or by phone at 684-6553. To obtain permission (and permission numbers) to enroll in the course, students should contact Ben Latta via email at thomas.latta@duke.edu. Credit: 5. Enrollment: min. 1, max 8. *Kevin Shah, MD. Available mentors: Suresh Agarwal, MD; Peter Allen, MD; Andrew Barbas, MD; Trey Blazer, MD; Benjamin Bryner, MD; Mitchell Cox, MD; Thomas D'Amico, MD; Georgia Beasley, MD; Jeffrey Gaca, MD; Donald Glower, MD; Rachel Greenup, MD; John Haney, MD; David Harpole, Jr., MD; Sandhya Lagoo, MD/PhD; Shelly Hwang, MD/MPH; Stuart Knechtle, MD; Michael Lidsky, MD; Andrew Lodge, MD; Christopher Mantyh, MD; John Migaly, MD; Theodore Pappas, MD; Dana Portenier, MD; Kadiyala Ravindra, MD; Henry Rice, MD; Laura Rosenberger, MD; Randall Scheri, MD; Jacob Schroder, MD; Cynthia Shortell, MD; Julie Thacker, MD; Elisabeth Tracy, MD; Betty Tong, MD; Steven Vaslef, MD/PhD; Cory Vatsaas, MD; and Sabino Zani, MD*

**SURGERY-402C. Emergency Medicine Sub-Internship.** 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. David Gordon at 681-2820 or via email, davidc.gordon@duke.edu. Secondary Contact: Kristin Campbell (Kristin.l.campbell@duke.edu). Prerequisites: Students must have already completed a prior emergency medicine rotation and permission of the instructor is required. Please try to contact the course director at least several weeks in advance of enrollment to help guarantee availability. First day meeting: 1:00 p.m. in the conference room located in the emergency services administrative suite above the emergency department. Credit: 5. max: variable. Offered in summer 43 only, summer 44 only, and all fall sections. *David Gordon, 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 Colleen McDowell (colleen.mcdowell@duke.edu). Permission numbers are not assigned by the Course director or the clinical contact. Clinical Contact for Students: Erika Sudyk (erika.sudyk@duke.edu) Enrollment Max: 3, unless otherwise noted. Credits: 5. *Geoffroy Sisk, MD and Erika Sudyk, PA-C*

**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 2020 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. 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; Brandon Ruderman, MD; Karthik Rao, DO; Rebecca Theophanus, MD*

**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. 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; and Michael Stang, MD*

**SURGERY-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*

**SURGERY-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*

**SURGERY-409C. Surgical Technique and Review Course (STAR).** Surgical Technique and Review (STAR) Course. 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 concludes with two full days performing surgery on fresh frozen human tissue 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. To obtain a permission number during registration for spring 2023, please email Harold Leraas, (harold.leraas@duke.edu) and include 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-412C. 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) 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. David Gordon at 919-681-2820 or by email, davidc.gordon@duke.edu. Secondary Contact: Kristin Campbell (kristin.l.campbell@duke.edu). Prerequisites: none. First day meeting: 1:00 p.m. in the conference room located in the emergency services administrative suite above the emergency department. Duke medical students must make sure that their VA credentials are active prior to the course as they may be assigned a shift at the Durham VA Medical Center. Credit: 4. Enrollment: max varies by term. *David Gordon, MD*

**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 5. *Thomas D'Amico, MD; Jeffrey G. Gaca, MD; Donald Glower, MD; John C. Haney MD, David Harpole, MD; Matthew G. Hartwig, MD; Chad Hughes, MD; Joseph Klapper, MD; Andrew Lodge, MD; Carmelo Milano, MD; Ryan Plichta, MD Jacob Schroder, MD; Peter K. Smith, MD; and Betty C. Tong, 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 Maria Fryar at 681-5077 or via email at [maria.fryar@duke.edu](mailto:maria.fryar@duke.edu). Credit: 4. Enrollment: max 1. *Tamara Fitzgerald, MD/PhD; Henry Rice, MD; Obinna Adibe, MD; Elisabeth Tracy, MD*

**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*

**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](mailto: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 Colleen McDowell via email [colleen.mcdowell@duke.edu](mailto:colleen.mcdowell@duke.edu). Clinical Contact for Students: Erika Sudyk ([erika.sudyk@duke.edu](mailto:erika.sudyk@duke.edu)). Credit: 4. Enrollment: max 2, unless otherwise noted. *Geoffroy Sisk, MD and Erika Sudyk, PA-C*

**SURGERY-451C. 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. Baker at [Karen.Baker@duke.edu](mailto:Karen.Baker@duke.edu) for more information and to obtain your permission number. Secondary contact: Apryle Graham ([apryle.graham@duke.edu](mailto:apryle.graham@duke.edu)). Prerequisite: Permission is required. Credit: 5. Enrollment max: 4. *Karen Baker, MD and urology staff*

# SUMMER SCHEDULE, 2022

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
ANESTH	401C <i>McCartney, Sharon</i>	41	(5 cr)	TBD	Cardiothoracic Intensive Care Sub-I TBD
ANESTH	402C <i>McCartney, Sharon</i>	41	(4 cr)	TBD	Cardiothoracic Intensive Care Elective TBD
ANESTH	430C <i>Derrick, Bruce</i>	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 <i>Taylor, Cameron</i>	41:43:44	(4 cr)	6:30 am M-F	Clinical Anesthesiology Schedules will be emailed
ANESTH	441C <i>Young, Christopher</i>	41:42:43:44	(5 cr)	6:30 am M-F	Sub-I in Surg. Intensive Care Unit (SICU) SICU 6 West DMP
ANESTH	446C <i>Roy, Lance</i>	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 <i>Halstater, Brian</i>	41:42:43:44	(5 cr)	FT	Subinternship in Family Medicine Family Medicine
COMMFAM	404C <i>Sheline, Barbara</i>	16	(1cr) longitudinal	TBD	Community Clinic Leadership Fremont Clinic
COMMFAM	410C <i>Trost, Melanie</i>	42	(2 cr)	8:00am FT	Travel Medicine at Duke Student Health Ctr - 305 Towerview Dr.
COMMFAM	433C <i>Tran, Anh</i>	42	(4 cr)	TBD	Community Health TBD
COMMFAM	435C <i>Halstater, Brian</i>	41:42:43:44	(4 cr)	FT	Health Promotion & Disease Prevention Family Medicine
COMMFAM	449C <i>Weigle, Nancy</i>	41:42:43:44	(4 cr)	FT TBD	Community & Family Medicine Preceptorship
DERMATOL	450C <i>Rao, Caroline</i>	41:42:43:44	(4 cr)	8:30am-6:00pm M-F	Clinical Dermatology Dermatology Clinic – VAMC Room C8013
FREETIME	450C	41:42:43:44	(0 cr)	TBD	Free Time TBD
INTERDIS	400C	16	(0 cr)	TBD	Independent Study
INTERDIS	401C <i>McCartney, Sharon</i>	42:43:44	(0 cr)	TBD	Acute Care Curriculum TBD
INTERDIS	470C <i>Staff</i>	16	(0 cr) (longitudinal)	TBD	Clinical Experience (MSTP) TBD
INTERDIS	475C <i>Staff</i>	16	(0 cr) (longitudinal)	TBD	Clinical Experience TBD
MEDICINE	401C <i>VanKirk, Jenny</i>	41:42:43:44	(5 cr)	6:30am, 6 days/wk FT	Internal Medicine Sub-I (Duke-DRH) TBD
MEDICINE	404C <i>Crowley, Annalisa</i>	41:42: 43:44	(5 cr)	FT	Cardiac Care Unit Sub-I 7400 Duke Hospital

*Please refer to the course description in DukeHub for more information*



# SUMMER SCHEDULE, 2022

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
MEDICINE	405C <i>Young, Katherine</i>	41	(5 cr)	FT	Intensive Care medicine Sub-I (Duke) TBD
MEDICINE	406C <i>Callaway, Martha</i>	41:42:43:44	(5 cr)	FT	Intensive Care Med. Sub-I at DVAMC VA Ward 5
MEDICINE	407C <i>Shirey, Kristen</i>	41:42:43:44	(5 cr)	7:30am-5:30pm M-F, plus call	Sub-I Internal Medicine/Psychiatry TBD
MEDICINE	415C <i>Yancy, William</i>	41:42:43:44	(4 cr)	8:00am-5:00pm FT	Clin. Management of Obesity TBD
MEDICINE	423C <i>Maheswaranathan, Mithu</i>	41:42:44	(4 cr)	8:00am-5:00pm FT	Rheumatology 34229 Duke Clinics
MEDICINE	425C <i>Riedel, Richard</i>	41:42:43:44	(4 cr)	7:00 am M-F	Clinical Coagulation TBD
MEDICINE	427C <i>Benner, Alisha</i>	41:42: 44	(2 cr)	FT	Hospice and Palliative Medicine Durham VA Medical Center CLC
MEDICINE	428C <i>Hong, Beatrice</i>	41:42:44	(4 cr)	M-F TBD	Metabolism & Endocrinology TBD
MEDICINE	430C <i>Marshall, Harvey</i>	41:42:43:44	(4 cr)	FT	Pulmonary Medicine 7453 Duke Hospital
MEDICINE	431C <i>Lugar, Patricia</i>	41:42:43:44	(4 cr)	FT	Adult Allergy & Clinical Immunology TBD
MEDICINE	434C <i>Riedel, Richard.</i>	41:42:43:44	(4 cr)	TBD	Outpatient Hem-Onc Duke or DVAMC TBD
MEDICINE	435C <i>Zhang, Cecelia</i>	41:42:43:44	(4 cr)	promptly @8:00am M-F	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>Riedel, Richard</i>	41:42:43:44	(4 cr)	M-F wkends optional	Clinical Hem/Onc-Duke or DVAMC TBD
MEDICINE	440C <i>McClain, Micah</i>	42:44	(4 cr)	M-F, wkends opt. F-T	Clinical Infectious Diseases 1558 Duke Clinics
MEDICINE	442C <i>Grant, Augustus</i>	41:42:43:44	(4 cr)	FT	Clinical Arrhythmia Service Students must check In with Dr. Grant
MEDICINE	444C <i>Agarwal, Richa</i>	41:42:43:44	(4 cr)	FT	Heart Failure and Cardiac Transplantation TBD
MEDICINE	445C <i>Crowley, Anna Lisa</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 7 <sup>th</sup> Floor, Near 7900

*Please refer to the course description in DukeHub for more information*

# SUMMER SCHEDULE, 2022

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
MEDICINE	449C <i>Genao, Liza</i>	41:42:43:44	(4 cr)	8:00am-5:00pm 5 days/wk	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	403C <i>Gable, Karissa</i>	41:42:43:44	(1-2 cr)	8:00am-5:00pm on call per faculty	Clin Neuro Subspecialties TBD
NEURO	404C <i>Gable, Karissa</i>	41:42:43:44	(4cr)	TBD	Consultative Neurology
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	(2 cr)	5:30am	Intermediate Clinical Neurosurgery 8W40A Duke North Pavilion
NEUROSUR	404C <i>Peters, Katy</i>	41:42:43:44	(4 cr)	TBD	Neuro-Oncology Brain Tumor Center Clinic Cancer Center Clinic 3-1
OBGYN	405C <i>Davidson, Brittany</i>	41:42:43:44	(5 cr)	6:00am –end of day M-F, some wkends	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 wkends	Female Pelvic Medicine & Reconstructive Surgery Sub-I OBGYN Clinic-Duke Clinics
OBGYN	447C <i>Honart, Anne</i>	41:42:43:44	(5 cr)	7:00am-5:00pm M-F, some wkends	Clinical Obstetrics Labor & Delivery – Duke Hospital
OPHTHAL	422C <i>Rosdahl, Jullia</i>	41:42:43:44	(4 cr)	8:00am FT	General Ophthalmology AERI Bldg (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>Hubbard, Elizabeth</i>	41:42:43:44	(3 cr)	FT	Frac & Musculoskeletal Trauma TBD
ORTHO	429C <i>Hubbard, Elizabeth</i>	41:42:43:44	(5 cr)	FT	Sub-I in Orthopaedic Surgery TBD
ORTHO	430C <i>Taylor, Dean</i>	41:42:43:44	(4 cr)	Mon-Fri FT	Orthopaedic Sports Medicine Finch Yeager Building – 3 <sup>rd</sup> Floor
ORTHO	431C <i>Ruch, David</i>	41:42:43:44	(4 cr)	Mon-Fri FT	Hand//Upper Extremity Surgery Duke Clinics and Durham VA Medical 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 7 <sup>th</sup> floor, HAFS Bldg.
ORTHO	433C <i>Fitch, Robert</i>	41:42:43:44	(4 cr)	Mon-Fri FT	Pediatric Orthopaedics 1 <sup>st</sup> day – 6:00 am – Orthopaedic Replant Office 7 <sup>th</sup> floor, HAFS Bldg.
OTOLARYN	401C <i>Lee, Janet</i>	41:42:43:44	(5 cr)	FT	Sub-Internship in Otolaryngology Head and Neck Surgery

*Please refer to the course description in DukeHub for more information*

# SUMMER SCHEDULE, 2022

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
OTOLARYN	403C <i>Lee, Janet</i>	41:42:43:44	(4 cr)	6:30am FT	Clinical Otolaryngology 6300
PATHOL	423C <i>Glass, Carolyn</i>	41:42	(4 cr)	FT	Autopsy Pathology Autopsy Room – Davison Bldg.
PATHOL	448C <i>Al-Rohil, Rami</i>	41:42:43:44	(4 cr)	8:00am M-F	Practical Surgical Pathology Davison Building, room M216A Davison Bldg.
PEDS	401C <i>Clifton, Dana</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 TBD (students that take Peds 228C are not eligible to enroll) Meet 1 <sup>st</sup> day at 9AM – Children’s Health Center, 3 <sup>rd</sup> Fl, GI Clinic – Duke Hospital
PEDS	404C <i>Chung, Richard</i>	41:42	(2 cr)	8:45am <i>FT</i>	Advanced Adolescent Medicine <i>Duke Hlth Ctr, 4020 N. Roxboro St</i>
PEDS	409C <i>Jordan, Megan</i>	41:42:43:44	(2 cr)	TBD	Pediatric Intensive Care Unit PICU 2W98c
PEDS	411C <i>Ellis, Donald</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	420C <i>McGann, Kammy</i>	41:42:43:44	(2 cr)	8:00am M-F	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	(1-2 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 <i>Izatt, Susan</i>	41:42	(5 cr)	TBD	Neonatology
PEDS	427C <i>Kreissman, Susan</i>	41:42:43	(4 cr)	8:00am	Pediatric Hematology/Oncology 382 Hanes House
PEDS	428C <i>Dvergsten, Jeffery</i>	41:42:43:44	(2 cr)	8:00am – 5:00pm TBD	Intro to Peds Rheumatology TBD
PEDS	429C <i>Dvergsten, Jeffery</i>	41:42:43:44	(3-4 cr)	8:00am – 5:00pm TBD	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

*Please refer to the course description in DukeHub for more information*

# SUMMER SCHEDULE, 2022

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
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, room 2924A
PEDS	436C <i>Kansagra, Sujay</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>Wigfall, Delbert</i>	41:42:43:44	(4 cr)	8:30am M-F	Pediatric Nephrology 0909 CHC
PEDS	446C <i>Martin, Paul</i>	41:42:43:44	(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 5 <sup>th</sup> night	Sub-I in Psychiatry Duke Clinics, Williams Ward 4 <sup>th</sup> Floor Red Zone
PSYCHTRY	407C <i>Shirey, Kristen</i>	41:42:43:44	(5 cr)	7:30am-5:30pm + WE day, Call Q5 6pm-12am	Sub-I in Internal Med/Psychiatry Duke Hospital
PSYCHTRY	443C <i>Purdy, Teresa</i>	41:44	(4cr)		Addiction Psychiatry
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>	41:42:44	(4 cr)	TBD	Breast Imaging TBD
RADIOL	403C <i>Leder, Richard</i>	41:42	(4 cr)	FT	Genitourinary Imaging Body CT Reading Room Duke North
RADIOL	420C <i>Carrico, Caroline</i>	41:42:43:44	(4 cr)	8:30am FT	Pediatric Radiology Peds Radiol Division 1 <sup>st</sup> FL CHC – 1905A
RADIOL	421C <i>Eastwood, James</i>	41:42:43:44	(4 cr)	8:30am	Clerkship Neuroradiology Neuroradiology CT Reading Room DMP 1W98
RADIOL	429C <i>Carrico, Caroline</i>	41:42:43:44	(4 cr)	TBD	Basic Radiology Clerkship (For students that have not taken Radiol 205C) Morris Building
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)	7:45am (1 <sup>st</sup> day)	Clinical Radiation Oncology Morris Building/RADONC Room 005113 – Sub-Basement White Zone – Duke Clinics
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

*Please refer to the course description in DukeHub for more information*

# SUMMER SCHEDULE, 2022

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
STDYAWAY	421C <i>Staff,</i>	41:42:43:44	(1-4 cr)	TBD	Study Away at WFU
STDYAWAY	431C <i>Staff</i>	41:42:43:44	(1-4 cr)	TBD	Study Away at ECU
STDYAWAY	440C <i>Staff</i>	41:42:43:44	(4 cr)	TBD	Study Away at Sri Lanka
SURGERY	401C <i>Shah, Kevin N.</i>	41:42:43:44	(5 cr)	TBD	Advanced Surgical Clerkship TBD
SURGERY	402C <i>Gordon, David</i>	43:44	(5 cr)	TBD	Emergency Medicine Sub-I 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	412C <i>Gordon, David</i>	43:44	(4 cr)	9:00am – 1 <sup>st</sup> day	Emergency Medicine Elective 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>D'Amico, Thomas</i>	41:42:43:44	(4 cr)	FT	Advanced Surgical Cardiovas. 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., Mon.-Fri on call determined by faculty w/1 day in 7 off</i>	Trauma Service General Surgery Resident <i>bunker/lounge, 3<sup>rd</sup> Fl, DMP</i>
SURGERY	444C <i>Sisk, Geoffroy</i>	41:42:43:44	(4 cr)	FT	Intro to Plastics- Recon. Max Surgery TBD
SURGERY	451C <i>Baker, Karen</i>	41:42:43:44	(5 cr)	FT	Sub-I in Urologic Surgery TBD

***(Schedules are Subject to Change)***

*Please refer to the course description in DukeHub for more information*

# FALL SCHEDULE, 2022

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
ANESTH	401C <i>McCartney, Sharon</i>	41:42:43:44	(5 cr)	TBD	Cardiothoracic Intensive Care Sub-I TBD
ANESTH	402C <i>McCartney, Sharon</i>	41:42:43:44	(4 cr)	TBD	Cardiothoracic Intensive Care Elective TBD
ANESTH	430C <i>Derrick, Bruce</i>	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 <i>Taylor, Cameron</i>	41:42:43:44	(4 cr)	6:30am M-F	Clinical Anesthesiology Schedules will be emailed
ANESTH	441C <i>Young, Christopher</i>	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 <i>Roy, Lance</i>	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 <i>Halstater, Brian</i>	41:42:43:44	(5 cr)	M-F FT	Sub-I in Family Medicine Family Medicine
COMMFAM	403C <i>Mosu, Virgil</i>	16	(0 cr) (longitudinal)	TBD	Community Clinic Leadership Holton Clinic
COMMFAM	404C <i>Barbara Sheline</i>	16	(0 cr) (longitudinal)	TBD	Community Clinic Leadership Fremont Clinic
COMMFAM	410C <i>Trost, Melanie</i>	43:44	(2 cr)	TBD	Travel Medicine at Duke Student Health Ctr. 305 Towerview Dr.
COMMFAM	423C <i>Subramaniam, Satish</i>	42	(4 cr)	TBD	Occupational & Environmental Medicine TBD
COMMFAM	433C <i>Tran, Anh</i>	42:43:44	(4 cr)	TBD	Community Health TBD
COMMFAM	435C <i>Halstater, Brian</i>	41:42:43:44	(4 cr)	FT	Health Promotion & Disease Prevention Family Medicine
COMMFAM	449C <i>Weigle Nancy</i>	41:42:43:44	(4 cr)	FT	Adv. Precept. In Comm & Family Med Family Medicine
DERMATOL	401C <i>Rao, Caroline</i>	43:44	(2 cr)	FT	Dermatology Inpatient Consults TBD
DERMATOL	450C <i>Rao, Caroline</i>	41:42:43:44	(4 cr)	8:30am-6:00pm M-F	Clinical Dermatology Dermatology Clinic - VAMC Room C8013
FREETIME	450C <i>Staff</i>	41:42:43:44	(0 cr)	TBA	Free Time
INTERDIS	400C <i>Staff</i>	41:42:43:44	(0 cr)	TBA	Independent Study
INTERDIS	401C <i>McCartney, Sharon</i>	41:42:43	(0 cr)	TBA	Acute Care Curriculum (taken <b>simultaneously</b> with Acute Care Course) TBD
INTERDIS	402C <i>Bradley, Don</i>	16	(0) (longitudinal)	TBA once a month	Introduction to Healthcare Markets and Policy for Practioners Trent Semans Center

*Please refer to the course description in DukeHub for more information*

# FALL SCHEDULE, 2022

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
INTERDIS	450C <i>Chung, Aimee</i>	16	(0 cr) (longitudinal)	TBA	Capstone TBD
INTERIDS	470C <i>Staff</i>	16	(0 cr)	TBA	Clinical Experience (MSTP)
INTERDIS	475C <i>Staff</i>	16	(0 cr)	TBA	Clinical Experience TBD
MEDICINE	401C <i>VanKirk, Jenny</i>	41:42:43:44	(5 cr)	6:30am, 6 days per week, FT	Internal Med Sub-I (Duke or Duke Reg) TBD
MEDICINE	402C <i>Riedel, Richard</i>	42:43:44	(5 cr)	7:00 am FT	Medicine Sub-I in Hematology/Oncology TBD
MEDICINE	404C <i>Crowley, Annalisa</i>	41:42:43:44	(5 cr)	FT	Cardiac Care Unit Sub-I 7400 Duke Hospital
MEDICINE	405C <i>Young, Katherine</i>	42:43:44	(5 cr)	FT	Intensive Care Med Sub-I at Duke MICU – Duke Hospital
MEDICINE	406C <i>Callaway, Martha</i>	41:42:43:44	(5 cr)	FT	Intensive Care Med. Sub-I at DVAMC VA Ward 5
MEDICINE	407C <i>Shiren, 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>Chudgar, Saumil</i>	42:43:44	(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 M-F	Rheumatology 34229 Duke Clinics
MEDICINE	425C <i>Riedel, Richard</i>	41:42:43:44 .	(4 cr)	7:00am M-F	Clinical Coagulation 0546 Hospital
MEDICINE	427C <i>Benner, Alisha</i>	41:42:43:44	(2 cr)	TBD	Hospice and Palliative Medicine DVAMC- CLC
MEDICINE	428C <i>Hong, Beatrice</i>	41:42:43:44	(4 cr)	8:30am-5:00pm M-F, Full time	Metabolism & Endocrinology TBD
MEDICINE	430C <i>Marshall, Harvey</i>	41:42:43:44	(4 cr)	FT	Pulmonary Medicine 7453 Duke Hospital
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	(2 cr)	7:30am FT	Introduction to the MICU DMP – 6E, outside of MICU bed 16
MEDICINE	434C <i>Riedel, Richard</i>	41:42:43:44 .	(4 cr)	TBD	Outpatient Hematology-Duke or DVAMC TBD
MEDICINE	435C <i>Zhang, Cecelia</i>	41:42:43:44	(4 cr)	promptly @8:00am- 6:00pm; M-F	Gastroenterology Tyor Conference Room, Duke Gastroenterology Clinical Suite, Orange Zone, room 0343

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FALL SCHEDULE, 2022

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
MEDICINE	437C <i>Maheswaranathan, Mithu</i>	41:42:43:44	(2 cr)	TBD	Rheumatology TBD
MEDICINE	438C <i>Riedel, Richard</i>	41:42:43:44	(4 cr)	weekends optional M-F	Clin Hem/Oncology-Duke or DVAMC Duke or DMVAMC
MEDICINE	440C <i>McClain, Micah</i>	41:42:43:44	(4 cr)	M-F; wkends opt. FT	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 1 <sup>st</sup> day
MEDICINE	444C <i>Agarwal, Richa</i>	41:42:43:44	(4 cr)	FT	Heart Failure & Transplants TBD
MEDICINE	445C <i>Crowley, Anna Lisa</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 7 <sup>th</sup> Floor, Near 7900
MEDICINE	447C <i>Baker, Jeffrey</i>	82	(1 cr)	5:15pm – 7:15pm TBD	Practitioners & Patients: The History of Clinical Medicine Conf. Room, Trent Center for Bioethics, Humanities & History of Med., Rm 108 Seeley Mudd Bldg,
MEDICINE	449C <i>Genao, Liza</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	(5 cr)	7:00a-6:00p 1 day in 7 off On-call per faculty	Neurology Sub-I 122 Baker House
NEURO	402C <i>Gable, Karissa</i>	41:42:43:44	(4 cr)	TBD	Neurology Clerkship
NEURO	403C <i>Gable, Karissa</i>	41:42:43:44	(1-2 cr)	8:00a-5:00p M-F; on call/faculty	Clinical Neuro Subspecialties TBD
NEURO	404C <i>Gable, Karissa</i>	41:42:43:44	(4 cr)	8:00am-5:00pm M-F	Consultative Neurology TBD
NEUROSUR	401C <i>Cook, Steven</i>	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 <i>Cook, Steven</i>	42:43:44	(2 cr)	5:30am – 5:00pm; one day in 7 off; FT	Intermedical Clinical Neurosurgery 8W40A Duke North Pavilion
NEUROSUR	404C <i>Peters, Katy</i>	41:42:43:44	(4 cr)	TBD	Neuro-Oncology TBD
OBGYN	405C <i>Davidson, Brittany</i>	41:42	(5 cr)	6:00am-until end of day; M-F +some weekends	Gynecological Cancer Sub-Internship TBD
OBGYN	407C <i>Weidner, Alison</i>	41:43:44	(5 cr)	7:00am-5:00pm M-F; some weekends	Female Pelvic Medicine & Reconstructive Surgery Sub-I OBGYN Clinic–Duke Clinics

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FALL SCHEDULE, 2022

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
OBGYN	447C <i>Honart, Anne</i>	41:42:43:44	(5 cr)	7:00am-5:00pm M-F and some weekends	Clinical Obstetrics 5 <sup>th</sup> Floor –Duke Hospital L&D Workroom
OPHTHAL	422C <i>Rosdahl, Jullia</i>	41:42:43:44	(4 cr)	8:00am FT	General Ophthalmology AERI Bldg. (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>Hubbard, Elizabeth</i>	41:42:43:44	(3 cr)	FT	Frac & Musculoskeletal Trauma TBD
ORTHO	429C <i>Hubbard, Elizabeth</i>	41:42:43:44	(5 cr)	FT	Sub-I in Orthopaedic Surgery TBD
ORTHO	430C <i>Taylor, Dean</i>	41:42:43:44	(4 cr)	Mon-Fri FT	Orthopaedic Sports Medicine Finch Yeager Building – 3 <sup>rd</sup> Floor
ORTHO	431C <i>Ruch, David</i>	41:42:43:44	(4 cr)	Mon-Fri FT	Hand//Upper Extremity Surgery Duke Clinic & Durham VA Med. Ctr.
ORTHO	432C <i>Brigman, Brian</i>	41:42:43:44	(4 cr)	Mon-Fri FT	Muskuloskeletal Oncology 1 <sup>st</sup> day – 6:00 am – Orthopaedic Replant Office, 7 <sup>th</sup> floor, HAFS Bldg.
ORTHO	433C <i>Fitch, Robert</i>	41:42:43:44	(4 cr)	Mon-Fri FT	Pediatric Orthopaedics 1 <sup>st</sup> day – 6:00 am – Orthopaedic Replant Office 7 <sup>th</sup> floor, HAFS Bldg.
OTOLARYN	401C <i>Lee,Janet</i>	41:42:43:44	(5 cr)	FT	Sub-I in Otolaryngology – Head & Neck Surgery TBD
PATHOL	423C <i>Glass, Carolyn</i>	42:43:44	(4 cr)	8:00am-5:00pm M-F	Autopsy Pathology Autopsy Room – Davison Bldg.
PATHOL	448C <i>Al-Rohil, Rami</i>	41:42:43:44	(4 cr)	8:00am M-F	Practical Surgical Pathology Davison Building, room M216A
PEDS	401C <i>Clifton, Dana</i>	41:42:43:44	(5 cr)	FT	Adv Clerkship in Pediatrics 5100 & 5300 Duke Hospital
PEDS	402C <i>Venkatasubramani, Narayan</i>	41:42:43:44	(2-4 cr)	TBD M-F	Pediatric Gastroenterology TBD – (students that take Peds 228C are not eligible to enroll) Meet 1 <sup>st</sup> day at 9AM – Children’s Health Center, 3 <sup>rd</sup> Fl, GI Clinic – Duke Hospital
PEDS	403C <i>Chung, Aimee</i>	42	(3-4 cr)	TBD	Med-Peds Ambulatory Rotation – Duke Health Center – 4020 N. Roxboro St. Durham 27704
PEDS	404C <i>Chung, Richard</i>	41:42:43:44	(2 cr)	TBD	Advanced Adolescent Med - Duke Health Center – 4020 N. Roxboro St. Durham, 27704
PEDS	409C <i>Jordan, Megan</i>	41:42:43:44	(2 cr)	TBD	Peds. Palliative Care & Quality of Life PICU 2W98c
PEDS	411C <i>Ellis, Donald</i>	41:42:43:44	(3-4 cr)	Based on Shifts	Pediatric Emergency Medicine Pediatric Emergency Dept.

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# FALL SCHEDULE, 2022

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
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	420C <i>McGann, Kammy</i>	41:41:43:44	(2 cr)	8:00am M-F	Intro Pediatric Infectious Diseases Duke Hospital – T915 CHC
PEDS	421C <i>McGann, Kammy</i>	41:42:43:44	(3-4 cr)	8:00a.m. M-F	Pediatric Infectious Diseases - Comp Duke Hospital – T915 CHC
PEDS	424C <i>Benjamin, Robert</i>	41:42:43:44	(1-2 cr)	9:00a.m. TBD	Intro to Peds Endocrinology & Diabetes CHC Lenox Baker
PEDS	425C <i>Benjamin, Robert</i>	41:42:43:44	(3-4 cr)	9:00a.m. TBD	Endocrine Disorders Children CHC Lenox Baker
PEDS	426C <i>Izatt, Susan</i>	41:42:43:44	(5 cr)	FT	Neonatology ICN Duke Hospital
PEDS	427C <i>Kreissman, Susan</i>	42:43:44	(4 cr)	8:00am FT	Pediatric Hematology/Oncology 382 Hanes House
PEDS	428C <i>Dvergsten, Jeffery</i>	41:42:43:44	(2 cr)	8:00am – 5:00pm TBD	Intro to Peds Rheumatology TBD
PEDS	429C <i>Dvergsten, Jeffery</i>	41:42:43:44	(3-4 cr)	8:00am – 5:00pm TBD	Intro to Peds Rheumatology TBD
PEDS	430C <i>Armstrong, Sarah</i>	42:43	(4cr)	FT	Healthy Lifestyles Program TBD
PEDS	431C <i>Spector, Zebulon</i>	41:42:43:44	(4 cr)	7:00a.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 & Clinical Immunology 4 <sup>th</sup> Fl, CHC – Allergy & Immunology Clinic
PEDS	434C <i>McDonald, Marie</i>	41:42:43:44	(4 cr)	FT	Clinical Genetics-Metabolism Genetics Clinic- CHC level 2 Room 2924A
PEDS	436C <i>Kansagra, Sujay</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 (on call); FT	Pediatric Intensive Care Unit (PICU) Duke North
PEDS	441C <i>Wigfall, Delbert</i>	41:42:43:44	(4 cr)	8:30am M-F	Pediatric Nephrology 0909 CHC
PEDS	446C <i>Martin, Paul</i>	41:42:43:44	(4 cr)	TBD FT	Pediatric Stem Cell Transplant Unit Old Duke Credit Union, 1400 Mooreene 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 5 <sup>th</sup> night	Sub-I in Psychiatry Duke Clinics, Williams Ward 4 <sup>th</sup> Floor, Red Zone
PSYCHTRY	407C <i>Shirey, Kristen</i>	41:42:43:44	(5 cr)	TBD	Sub-I in Internal Medicine/Psychiatry TBD

*Please refer to the course description in DukeHub for more information*

# FALL SCHEDULE, 2022

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
PSYCHTRY	443C <i>Purdy, Teresa</i>	41:42:44	(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 TBD	Breast Imaging TBD
RADIOL	403C <i>Leder, Richard</i>	41:42	(4 cr)	FT TBD	Genitourinary Imaging Body CT Reading Room Duke North
RADIOL	404C <i>Martin, Jonathan G.</i>	42:43:44	(2 cr)	FT TBD	Vascular Imaging TBD
RADIOL	405C <i>Martin, Jonathan G.</i>	41:42:43:44	(2 cr)	TBD	LIC Radiology Subspeciality
RADIOL	406C <i>Martin, Jonathan G.</i>	41:42:43:44	(4 cr)	TBD	ADV Vasc & Interven Radiol
RADIOL	420C <i>Carrico, Caroline</i>	41:42:43	(4 cr)	FT	Pediatric Radiology Peds Radiol Division 1 <sup>st</sup> FL CHC – 1905A
RADIOL	421C <i>Eastwood, James</i>	41:42:43:44	(4 cr)	FT	Clerkship Neuroradiology Neuroradiology CT Reading Room, DMP 1W98
RADIOL	429C <i>Martin, Jonathan G.</i>	41:42:43	(4 cr)	FT	Basic Radiology Clerkship (For students that have not taken 205C) Morris Building
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
STDYAWAY	421C <i>Staff</i>	41:42:43:44	(1-4 cr)	TBD	Study Away at WFU
STDYAWAY	431C <i>Staff</i>	41:42:43:44	(1-4 cr)	TBD	Study Awa at ECU
STDYAWAY	440C <i>Staff</i>	41:42:43:44	(4 cr)	TBD	Study Away at Sri Lanka
SURGERY	401C <i>Shah, Kevin N.</i>	41:42:43:44	(5 cr)	TBD	Advanced Surgical Clerkship TBD
SURGERY	402C <i>Gordon, David C.</i>	41:42:43:44	(5cr)	TBD	Emergency Medicine Sub-I TBD
SURGERY	403C <i>Sisk, Geoffroy</i>	41:42:43:44	(5 cr)	TBD	Sub-I in Plastic Surgery – Integrated Prog. TBD

*Please refer to the course description in DukeHub for more information*

# FALL SCHEDULE, 2022

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
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	407C <i>Waite, Kathleen</i>	16	(1-2 cr)	TBD	IPE Student Clinic Leadership Elective I TBD
SURGERY	408C <i>Waite, Kathleen</i>	16	(3-4 cr)	TBD	IPE Student Clinic Leadership Elective II TBD
SURGERY	412C <i>Gordon, David C.</i>	41:42:43:44	(4 cr)	FT	Emergency Medicine Elective 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 & wkends	General Surgical Oncology TBD
SURGERY	423C <i>D'Amico, Thomas</i>	41:42:43:44	(4 cr)	FT	Advanced Surg. Cardiovas/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, 3 <sup>rd</sup> Fl., DMP
SURGERY	444C <i>Sisk, Geoffroy</i>	41:42:43:44	(4 cr)	FT	Intro. Plastics- Reconstruct. Max. Surgery TBD
SURGERY	451C <i>Baker, Karen</i>	41:42:43:44	(5 cr)	FT	Sub-I in Urological Surgery TBD

**(Schedules Subject to Change)**

*Please refer to the course description in DukeHub for more information*

FALL SCHEDULE, 2022

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DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
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*Please refer to the course description in DukeHub for more information*

# SPRING SCHEDULE, 2023

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
ANESTH	401C <i>McCartney, Sharon</i>	41:42:43:44	(5 cr)	TBD	Cardiothoracic Intensive Care Sub-I TBD
ANESTH	402C <i>McCartney, Sharon</i>	41:42:43:44	(4 cr)	TBD	Cardiothoracic Intensive Care Elective TBD
ANESTH	430C <i>Derrick, Bruce</i>	41:42:44	(4 cr)	7:30am FT	Diving and Hyperbaric Medicine Hyperbaric Center Library 0588 White Zone, CR II Bldg.
ANESTH	440C <i>Taylor, Cameron</i>	41:42: 44	(4 cr)	FT	Clinical Anesthesiology Schedules will be emailed
ANESTH	441C <i>Young, Christopher</i>	41:42:44	(5 cr)	6:30am M-F	Sub-I in Surgical Intensive Care Unit SICU – Duke Hospital
ANESTH	445C <i>Derrick, Bruce</i>	16	(3 cr)	TBD	Physical & Medicine of Extreme Environ Hyperbaric Center Library
ANESTH	446C <i>Roy, Lance</i>	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 <i>Halstater, Brian</i>	41:42:44	(5 cr)	FT	Sub-I in Family Medicine Family Medicine
COMMFAM	403C <i>Mosu, Virgil</i>	16	(1 cr) (longitudinal)	TBD	Community Clinic Leadership Holton Clinic
COMMFAM	404C <i>Sheline, Barbara</i>	16	(1cr) (longitudinal)	TBD	Community Clinic Leadership Fremont Clinic
COMMFAM	410C <i>Trost, Melanie</i>	42:44	(2 cr)	8:00am FT	Travel Medicine at Duke Student Health Ctr. 305 Towerview Drive
COMMFAM	423C <i>Subramaniam, Satish</i>	42	(4 cr)	8a-5p M-F	Occupational & Environmental Medicine TBD
COMMFAM	433C <i>Tran, Anh</i>	41	(4 cr)	TBD	Community Health TBD
COMMFAM	435C <i>Halstater, Brian</i>	41:42:44	(4 cr)	FT	Health Promotion and Disease Prevention Family Medicine
COMMFAM	448C <i>Hammond, Ed</i>	42 (contact Vivian West)	(4 cr)	7:00am – 5:00pm	Intro.toMedical Informatics Duke Center for Health Informatics
DERMATOL	401C <i>Rao, Caroline</i>	41:42:44	(2 cr)	FT	Dermatology Inpatient Consults TBD
DERMATOL	450C <i>Rao, Caroline</i>	41:42:44	(4 cr)	8:30am-6:00pm M-F	Clinical Dermatology Dermatology Clinic, Room 08013 VAMC
FREETIME	450C	41:42:44	(0 cr)	TBD	Free Time
INTERDIS	400C <i>Staff</i>	41:42:44 81:82:16	(0 cr)	TBD	Independent Study
INTERDIS	401C <i>McCartney, Sharon</i>	41:42:44	(0 cr)	TBD	Acute Care Curriculum (should be taken <u>simultaneously</u> with approved acute care course)

*Please refer to the course description in DukeHub for more information*

# SPRING SCHEDULE, 2023

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
INTERDIS	402C Bradley, Don	16	(1 cr)	TBD	Intro to Healthcare Markets & Policy for Practitioners Longitudinal course (fall/spring enrollment required)
INTERDIS	403C Quaranta, Brian	81	(1 cr)	TBD 5:30p-7:30 or 5:30p – 8:30p	Narrative Medicine TBD (min. enrollment: 8)
INTERDIS	406C Doty, Joe Taylor, Dean	81	(1 cr)	TBD 6p-8p	Physician Leadership: From Daily Challenges to Medicine in 21 <sup>st</sup> Century Min. enrollment: 10
INTERDIS	422C Clements,Dennis Solorzano, Rosa	16	(1 cr)	TBA	Exploring Medicine TBD
INTERDIS	423C Clements, Dennis Solorzano, Rosa	43	(1 cr)	TBA	Honduras Trip TBD
INTERDIS	450C Chung, Aimee	43	(4 cr)	8:00am-5:00pm M-F	Capstone - <i>Required</i> TBD
INTERDIS	470C Staff	16	(0 cr)		Clinical Experience TBD
INTERDIS	475C Staff	16	(0 cr)	TBD	Clinical Experience (MSTP) TBD
MEDICINE	402C Riedel, Richard	41:42:44	(5 cr)	FT	Medicine Sub-I in Hematology/Oncology TBD
MEDICINE	404C Crowley, Anna Lisa	41:42:44	(5 cr)	FT	Cardiac Care Unit Sub-I 7400 – Duke Hospital
MEDICINE	405C Young, Katherine	41:42:44	(5 cr)	FT	Medical Intensive Care Unit Sub-I -Duke MICU-Duke Hospital
MEDICINE	406C Callaway, Martha	41:42:44	(5 cr)	FT	Med Intensive Care Unit Sub-I- DVAMC VA Ward 5
MEDICINE	407C Shirey, Kristen	41:42:44	(5 cr)	7:30am-5:30pm	Sub-I Internal Medicine/Psychiatry TBD
MEDICINE	412C Chudgar, Saumil	41:42:44	(2 cr)	TBD	Hospital Medicine TBD
MEDICINE	414C Waite, Kathleen	41:42:44	(1-2 cr)	TBD	Introduction to Outpatient Primary Care Students must contact Dr. Waite for schedule
MEDICINE	415C Yancy, William	41:42:44	(4 cr)	FT	Clinical Management of Obesity TBD
MEDICINE	416C Chudgar, Saumil	81	(1 cr)	TBD	Effective Clinical Teaching TBD
MEDICINE	423C Maheswaranathan, Mithu	41:42:44	(4 cr)	M-F 8:00am-5:00pm	Rheumatology 34229 Duke Clinics
MEDICINE	424C Roberts, John K.	81	(1 cr)	Wed 5:30p – 7:30p	Fluids and Electrolytes TBD

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# SPRING SCHEDULE, 2023

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
MEDICINE	425C <i>Riedel, Richard</i>	41:42:44	(4 cr)	FT	Clinical Coagulation 0546 Hospital
MEDICINE	427C <i>Benner, Alisha</i>	41:42:44	(2 cr)	FT	Hospice and Palliative Medicine DVAMC- CLC
MEDICINE	428C <i>Hong, Beatrice</i>	41:42:44	(4 cr)	FT	Metabolism and Endocrinology TBD
MEDICINE	430C <i>Marshall, Harvey</i>	41:42:44	(4 cr)	FT	Pulmonary Medicine 7453 Duke Hospital
MEDICINE	431C <i>Lugar, Patricia</i>	41:42:43:44	(4cr)	FT	Adult Allergy & Clinical Immunology TBD
MEDICINE	432C <i>Young, Katherine</i>	41:42:44	(2 cr)	7:30am <i>FT</i>	Introduction to the MICU <i>DMP – 6E, outside of MICU bed 16</i>
MEDICINE	434C <i>Riedel, Richard</i>	41:42:44	(4 cr)	8:00am <i>FT</i>	Outpatient Hematology/Oncology Duke or DVAMC
MEDICINE	435C <i>Zhang, Cecilia</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)	TBD <i>FT</i>	Rheumatology TBD
MEDICINE	438C <i>Riedel, Richard</i>	41:42:44	(4 cr)	7:00am <i>FT</i>	Clinical Hematology/Oncology DUKE OR DVAMC
MEDICINE	439C <i>Galanos, Anthony N. Riordan, Paul</i>	81	(1 cr) <i>Thursday</i>	4p – 6p	Grief and Bereavement 101 <i>TBD</i>
MEDICINE	440C <i>McClain, Micah</i>	41:42:44	(4 cr)	M-F; wkends opt. <i>F-T</i>	Clinical Infectious Diseases 1558 – Duke Clinics
MEDICINE	442C <i>Grant, Augustus</i>	41:42:44	(4 cr)	TBD	Clinical Arrhythmia Service Students MUST check in with Dr. Grant on 1 <sup>st</sup> day
MEDICINE	444C <i>Agarwal, Richa</i>	41:42:44	(4 cr)	TBD	Heart Failure and Transplant. TBD
MEDICINE	445C <i>Crowley, Annalisa</i>	41:42:44	(4 cr)	FT	Consultative Cardiology TBD
MEDICINE	446C <i>Punj, Shweta</i>	41:42:44	(4 cr)	8:00am-5:30pm M-F, full time	Nephrology Duke Hospital Dialysis Unit 7 <sup>th</sup> Floor, Near 7900
MEDICINE	449C <i>Genao, Liza</i>	41:42:43:44	(4 cr)	8:00am-5:00pm 5 days/week	Geriatric Medicine TBD
MEDICINE	452C <i>Curlin, Farr</i>	41	(1 cr)	5:15p – 7:15p <i>TBD</i>	Clinical Medical Ethics: What Would <i>A Good Physician Do?</i> <i>Room 108, Seeley Mudd Bldg</i>
MEDICINE	453C <i>Mantri, Sneha</i>	82	(1 cr)	5:15p – 7:15p <i>TBD</i>	Medicine, Humanities & the Arts <i>TBD</i> (Min. Enrollment: 8)

*Please refer to the course description in DukeHub for more information*



# SPRING SCHEDULE, 2023

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
NEURO	401C <i>Mayberry, Jordan</i>	41:42:43:44	(5 cr)	TBD	Neurology Sub-I
NEURO	402C <i>Gable, Karissa</i>	41:42:44	(4 cr)	TBD	Neurology Clerkship (only for students that did not take Neuro 205C or Medicine 207)
NEURO	403C <i>Gable, Karissa</i>	42:44	(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
NEURO	405C <i>Davis Simon</i>	16	(1 cr)	5:30p – 7:30p	The Neurobiology of Aging Virtual - Zoom
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 Cliniccal Neuro 8W40A Duke North Pavilion
NEUROSUR	404C <i>Peters, Katy</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	447C <i>Honart, Anne</i>	41:42:44	(4 cr)	7:00am M-F; some weekends	Clinical Obstetrics <i>5<sup>th</sup> Floor –Duke Hospital L&amp;D Workroom</i>
OPHTHAL	420C <i>Rosdahl, Jullia</i>	81	(1 cr)	TBA 12p-1p	Medical Ophthalmology AERI Bldg. (behind Eye Ctr.) Resource Ctr., Rm 1002 (lecture)
OPHTHAL	422C <i>Rosdahl, Jullia</i>	41:42:44	(4 cr) 8:00a	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>Hubbard, Elizabeth</i>	41:42:44	(3 cr)	TBD	Frac & Musculoskeletal Trauma TBD
ORTHO	429C <i>Hubbard, Elizabeth</i>	41:42:44	(5 cr)	FT	Sub-I in Orthopaedic Surgery TBD
ORTHO	430C <i>Taylor, Dean</i>	41:42:44	(4 cr)	Mon-Fri 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 FT	Hand/Upper Extremity Surgery Duke Clinic and Durham VA
ORTHO	432C <i>Brigham, Brian</i>	41:42:44	(4 cr)	Mon-Fri FT	Musculoskeletal Oncology 1 <sup>st</sup> day – 6:00 am – Orthopaedic Replant Office

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# SPRING SCHEDULE, 2023

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
ORTHO	433C <i>Fitch, Robert</i>	41:42:44	(4 cr)	Mon-Fri FT	Pediatric Orthopaedics 1 <sup>st</sup> day – 6:00 am – Orthopaedic Replant Office 7 <sup>th</sup> floor, HAFS Bldg.
OTOLARYN	401C <i>Lee, Janet</i>	41:42:44	(5 cr)	FT	Sub-I in Otolaryngology- Head and Neck Surgery TBD
OTOLARYN	403C <i>Lee, Janet</i>	41:42:44	(4 cr)	FT	Clinical Otolaryngology 1530 D & T
PATHOL	423C <i>Glass, Carolyn</i>	42:44	(4 cr)	8:00am-5:00pm M-F	Autopsy Pathology Autopsy Rm – Davison Bldg.
PATHOL	448C <i>Al-Rohil, Rami</i>	41:42:44	(4 cr)	8:00am M-F	Practical Surgical Pathology Davison Bldg., room M216A
PEDS	402C <i>Venkatasubramani, Narayan</i>	41:42:43:44	(3-4 cr)	TBD M-F	Pediatric Gastroenterology (Students that take PEDS 228C - not eligible to enroll) 3 <sup>rd</sup> Fl CHC – 1 <sup>st</sup> day, 9AM
PEDS	404C <i>Chung, Richard</i>	41:42:44	(2 cr)	TBD	Advanced Adolescent Medicine Duke Health Center 4020 N. Roxboro Rd., Durham, 27704
PEDS	408C <i>Narayan, Aditee</i>	81	(1 cr)	5:30p – 7:30p <i>Wednesday</i>	Child Advocacy Lab <i>TBD</i>
PEDS	409C <i>Jordan, Meghan</i>	41:42:44	(2 cr)	9:00am TBD	Pediatric Palliative Care and Quality of Life PICU 2W98c
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	411C <i>Ellis, Donald</i>	41:42:44	(3-4 cr)	Based on Shifts	Pediatric Emergency Medicine Pediatric Emergency Dept.
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>Kreissman, Susan</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>Dvergsten, Jeffery</i>	41:42:43:44	(2 cr)	8:00am – 5:00pm TBD	Intro to Peds Rheumatology TBD

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# SPRING SCHEDULE, 2023

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
PEDS	429C <i>Dvergsten, Jeffery</i>	41:42:43:44	(3-4 cr)	8:00am – 5:00pm TBD	Intro to Peds Rheumatology TBD
PEDS	430C <i>Armstrong, Sarah</i>	43	(4cr)	FT	Healthy Lifestyle Program TBD
PEDS	431C <i>Spector, Zebulon</i>	41:42:44	(3-4 cr)	7:00a.m. FT	Clinical Pediatric Cardiology 7617 Duke Hosptial
PEDS	433C <i>Stallings, Amy</i>	41:42:44	(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>	41:42:44	(4 cr)	8:30am-5:00pm M-F	Clinical Genetics - Metabolism Genetics Clinic, CHC level 2, Rm T924A
PEDS	436C <i>Kansagra, Sujay</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>Wigfall, Delbert</i>	41:42:44	(4 cr)	8:30am M-F	Pediatric Nephrology 0909 CHC
PEDS	446C <i>Martin, Paul</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 & call every 5 <sup>th</sup> night	Sub-I in Psychiatry Duke Clinics, Williams Ward 4 <sup>th</sup> Floor, Red Zone
PSYCHTRY	402C <i>Helmke, Nicole</i>	81	(1 cr)	5:15p – 7:15p (Thurs) TBD	Cultural Contexts of Substance Use Disorder Treatment
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	(4 cr)	8:00am-5:00pm FT	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	403C <i>Leder, Richard</i>	41:42:44	(4 cr)	FT	Genitourinary Imaging Body CT Reading Room Duke North
RADIOL	404C <i>Martin, Jonathan G.</i>	41:42	(2 cr)	FT	Vascular Intern. Radiology TBD
RADIOL	405C <i>French, Robert</i>	41:42	(2 cr)	TBD	LIC Radiology Subspeciality TBD
RADIOL	420C <i>Carrico, Caroline</i>	44	(4 cr)	FT	Pediatric Radiology Peds Radiology Division 1 <sup>st</sup> FL, CHC – 1905A

*Please refer to the course description in DukeHub for more information*

# SPRING SCHEDULE, 2023

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
RADIOL	421C <i>Eastwood, James</i>	41:42:44	(4 cr)	FT	Clerkship in Neuroradiology Neuroradiology CT Reading Room, DMP 1W98
RADIOL	429C <i>Martin, Jonathan G</i>	42	(4 cr)	FT	Basic Radiology Clerkship (For students that have not taken RADIOL 205C) Morris Building
RADIOL	437C <i>Spritzer, Charles</i>	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
STDYAWAY	421C <i>Staff</i>	41:42:44	(1-4 cr)	TBD	Study Away at WFU
STDYAWAY	431C <i>Staff</i>	41:42:44	(1-4 cr)	TBD	Study Away at ECU
STDYAWAY	440C <i>Staff</i>	81:82	(4 cr)	TBD	Study Away at Sri Lanka
SURGERY	401C <i>Shah, Kevin N.</i>	41:42:44	(5 cr)	TBD	Advanced Surgical Clerkship TBD
SURGERY	403C <i>Sisk, Geoffroy</i>	41:42:44	(5 cr)	TBD	Sub-I in Plastic Surgery – Integrated Prog. 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
SURGERY	407C <i>Waite, Kathleen</i>	16	(1-2 cr)	TBD	Direct Observation and IPE Student Clinic Leadership I TBD
SURGERY	408C <i>Waite, Kathleen</i>	16	(3-4 cr)	TBD	Direct Observation and IPE Student Clinic Leadership II TBD
SURGERY	409C <i>Migaly, John</i>	44	(2 cr)	TBD	Surgical Techniques and Review (STAR) TSCHE
SURGERY	412C <i>Gordon, David C.</i>	41:42:44	(4 cr)	TBD	Emergency Medicine Elective TBD
SURGERY	420C <i>Blazer, Trey</i>	41:42:44	(4 cr)	6:00am-until; plus on call	General Surgical Oncology TBD
SURGERY	423C <i>D'Amico, Thomas</i>	41:42	(4 cr)	FT	Advanced Surgical Cardiovas Thoracic TBD

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# SPRING SCHEDULE, 2023

DEPT.	COURSE NO INSTRUCTOR	SECTION	CREDIT	TIME	TITLE PLACE
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., Mon.-Fri. on-call Determined by faculty	Trauma Service General Surgery Resident bunker/lounge, 3 <sup>rd</sup> FL, DMP
SURGERY	444C <i>Sisk, Geoffroy</i>	41:42:44	(4 cr)	FT	Intro Plastic Reconstruc. Max. Surgery TBD
SURGERY	451C <i>Baker, Karen</i>	41:42:44	(5 cr)	FT	Sub-I in Urological Surgery TBD

**(Schedules Subject to Change)**

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February, 2022