Research Track Syllabus

Year 1 – Year 4, 2023-2024
Courses: IDPT 5094 (Spring 1ˢᵗ year), 5095 (Summer after 1ˢᵗ
year), 6095 (2ⁿᵈ year) , 7095 (3ʳᵈ year) , 8095 (4ᵗʰ year)
Electives: IDPT 8601, 8602

Program Coordinator:

Mary McGinnis

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Research Track Director:

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For questions related to Research Track: You are welcome to contact us directly, or email at
coloradoreserachtrack@cuanschutz.edu . E-mails will be checked daily and answered within 1 business day
(normal weekdays), but will not be answered on weekends/holidays. If you don't receive an answer in that
timeframe, please email us again—occasionally emails get lost, overlooked or not delivered. We do our best
to respond to all emails in a timely manner.

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Research Track Overview

The SOM Research Track provides students with in-depth long-term exposure to research. This is an open and competitive program students apply to during their 1st year of medical school. Students in Research Track will:

- Work with a mentor to build a research plan

- Carry out that plan through their four years of medical school

- Work with their mentor during a required 4-week course during the summer break between Preclerkship and Clerkship years (a stipend is provided for this work)

- Complete 2 research electives (8601 and 8602) during the post-clerkship phase (a stipend is provided for each of these electives for 4 weeks of full time research with their mentor). Additionally, students can elect to do a 3rd research month (8602 can be repeated once). A stipend is not available for the 3rd elective month

- Have multiple opportunities to present their work

- Present their research at the Western Student Medical Research Forum in Carmel California

- Present their research at a national meeting in their specialty

- Submit a first-author or co-first author manuscript prior to residency

The Research Track is a four-year program. Students leave medical school prepared to continue their research into residency, fellowship and throughout their academic careers.

Successful completion of the Research Track also fulfills students' requirements for scholarly activities (serves to substitute for the Mentored Scholarly Activity requirement).

Research Track Goals

- Graduates will have the knowledge, attitudes, and skills to be lifelong, self-directed learners.

- Foster student development of an identity as a physician capable of being involved with and completing research efforts

- Graduates will acquire the knowledge and skills to successfully complete the components of a research project including:

  - Identification of a health care related scientific questions

  - Participation in data collection and analysis

  - Oral dissemination of scientific information

  - Written dissemination of scientific information

Application Process

- Entry into the Research Track is a competitive process.

- Application to the Research Track is via the development of an individualized Research Plan which will be created and monitored by the student in collaboration with a primary research mentor. The application due date is determined on a yearly basis and further details and due dates are provided to the first-year medical student class well before the application deadline.

- If accepted into the Research Track, students will need to agree to and sign the acceptance letter and the student/mentor agreement. **Application Process Objectives**

- Identify a mentor

- Review and assess the commitment level necessary to complete the research track.

- Complete a research plan which includes a description of the scientific question and its relationship to established scientific literature; appropriate methodology including, if appropriate, sample collection; analysis; and early plans related to dissemination.

Assignments, Due Dates and Requirements

Class of 2027 Preclerkship Year (Plains)

Precelerkship Year (Year 1) Assignment Due Dates

- Research Track Application Period Opens: August 14, 2023
- Research Track Applications Due: October 2, 2023
- Create an ORCID ID: January 17, 2024
- CITI/IACUC Training Submission: January 17, 2024
- 1:1 session with Track Director (Jan-February 2024)
- EndNote Training (asynchronous): February 13, 2024
- Review PowerPoint "How to Do a Work in Progress (WIP")" and present your WIP in the spring to peers: March 19, 2024
- Capstone Poster Judging (Virtual): April 26, 2024
- HR Finance Forms Deadline (this is required in order to arrange your payment of your summer stipend): To be determined—but before May 1, 2024

Preclerkship Year Zoom Meeting (Session) Dates

- Orientation: November 8, 2023
- 1:1 session with Track Director (Jan-February 2024)
- Work In Progress Presentations: Mar-May 2024 (review powerpoint asynchronously prior to preparing your work-in-progress)
- Summer 2024 Research Track Course Orientation: will be scheduled in June or July

Class of 2027- Summer Discovery Period July/August 2024

- Required 4 week summer course doing full time research work on your Research Track project with your mentor- **Students will elect to participate either 7/29-8/23/2024 OR 8/5-8/30/2024-this is a fulltime 40 hour/week paid position to work on your research with your mentor.**
- Asynchronous Sessions (Due Aug 27, 2024)
  - How to Write an Abstract Video:

- o How to Make a Scientific Poster Video
- o How To Do An Oral Presentation Video:
- Work In Progress Presentations: Scheduled the week of August 19-23, 2024

Preclerkship Year Requirements

- Students are expected to spend approximately ½ day per week working on their project, starting in November through the Preclerkship Year (Plains curriculum) through the remainder of the academic year.

- Students will attend mandatory meetings of the Research Track beginning with an orientation in November (the only required meeting fall semester). There will be 3 mandatory meetings in Spring semester (Jan through July). These include a 1:1 meeting with the Track Director, your work-in-progress session, and a summer orientation session. These sessions occur on Wednesdays from 12-1 PM (you are welcome to eat lunch during all of these sessions). At some point before the summer session, you will need to meet with HR to verify your identity to be able to complete your "hiring" so we can give you a stipend for your summer research work (we will let you know when you need to do that)

- Students will spend four weeks in a full-time summer research experience between the Preclerkship Year and Clerkship during the "Discovery period" (see dates above). Students will receive a stipend of for the 4-week full-time research work (40 hours per week). ***Note: Research Track students must terminate any other University employment they may have before beginning their full-time research experience. Students on a Visa may or may not be eligible to receive stipends (this will be determined by Human Resources once the student has submitted HR paperwork). Regardless of whether students on a Visa are eligible for a stipend, they can still participate in the Research Track (and they must complete the research months requirement to remain in the Track).***

- There may be additional requirements depending on the source of funding.

Required if your project includes human subjects:

- Colorado Multiple Institutional Review Board (COMIRB) – If your project involves human subjects you must complete COMIRB training/certification on line and plan ahead to submit your protocol as soon as possible.

Required if your project includes vertebrate animal subjects:

- If your project involves vertebrate subjects your project must be approved by IACUC. Plan ahead to submit your protocol as soon as possible.

Preclerkship Year (Year 1) Goals

1. Students will identify a mentor and establish a research mentor-mentee relationship.
2. Students will develop a well-defined mentored research project and timeline for completion.
3. Students will have basic skills in the use of scientific article citation management

Learning Objectives Individualized Research Experience

1. Develop a relationship with a scientific mentor

2. Review scientific literature pertinent to the individual research project.
3. Identify skills that are needed to carry out components of the individual research project.
4. Begin training to master the identified skills needed to carry out components of the individual research project.
5. Identify whether the research project needs approval from oversight bodies (i.e. COMIRB, Institutional Animal Care and Use Committee) and develop a plan (if needed) to obtain approval.

Learning Objectives-Work in Progress Presentation 1

1. Present WIP to peers and faculty in an oral presentation
2. Effectively respond to comments and questions from peers about your research efforts
3. Identify scientific questions in other students' presentations
4. Evaluate strengths and weaknesses in presentations by others

National Meeting Travel: Occasionally students in their first year make great progress on their projects and their mentors may suggest presenting the findings at a national meeting. Please contact Mary McGinnis if you are planning to submit an abstract with your mentor pertaining to your Research Track project to a national meeting to make sure it is eligible for Research Track funding. The University has rules around how travel is arranged in order to be reimbursable. Mary will send you instructions on how to properly make those arrangements so you can be reimbursed (within University policy) for your travel expenses. Do not make ANY arrangements to travel to a meeting without first talking with our Research Track Coordinator (Mary McGinnis). Do NOT buy your own tickets. Travel to national meetings must be within the 48 continental United States. **The Research Track will NOT support or reimburse travel/expenses to international meetings.**

Class of 2026 (Trek Curriculum) Summer Course

IDPT 5095-Summer Between Pre-clerkship and Clerkship Year (Discovery); July 24, 2023-August 18, 2023

Goals:

1. Demonstrate progress towards the completion of research project
2. Publicly communicate understanding of the project to peers

Summer Requirements and Due Dates for IDPT 5095:

1. Attend the summer orientation session on **7/19/2023 at 12 PM via Zoom**.
2. Advance your research project as much as possible (collect data, analyze, etc)
3. Work on your research project 40 hours a week for the 4 weeks of the course.
4. Meet with your mentor
5. Watch the 3 videos on Canvas: **Deadline 8/15/2023**
    a. How to write an abstract
    b. How to make a poster
    c. How to do an oral scientific presentation
6. Present your project orally, with a power point presentation during a Work-in-Progress session that will be scheduled near the end of the course (**WIPS will be held on 8/16, and 8/17**).

Evaluate the presentations of your peers in a Work in Progress session (**WIPS will be held on 8/16, and 8/17).**

Learning Objectives- Summer Orientation Session

1. Describe the overall expectations and structure of the summer experience in the Research Track

Learning Objectives-Work in Progress Session 2

1. Present WIP to peers and faculty in an oral presentation
2. Effectively respond to comments and questions from peers about your research efforts
3. Identify scientific questions when others present
4. Evaluate strengths and weaknesses in presentations by others.

Learning Objectives Individualized Research Experience

1. Regularly meet with a scientific mentor
2. Gain any necessary skills needed for data collection.
3. Begin data collection appropriate to the individualized research project

Learning Objectives Asynchronous Videos (How to do an oral scientific presentation, How to write an abstract, How to create a scientific poster).

1. Describe basic components of an oral scientific presentation
2. Describe the basic components of an abstract.
3. List the components of an effective scientific poster.

National Meeting Travel: Occasionally students make great progress on their projects and their mentors may suggest presenting the findings at a national meeting. Please understand that absences from the LIC year must be approved by LIC Directors and absences in the postclerkship phase (after the clerkship year) must be approved by the Office of Student Life (OSL). Prior to making any meeting travel arrangements, contact our coordinator, Mary McGinnis, for information. You must follow the policies set up by the University for travel arrangements to be eligible for reimbursement for those travel expenses. For the Carmel meeting, all students who notify us they have abstracts accepted, will be sent a detailed sheet with instructions on how to make travel arrangements. For other national meetings, contact Mary McGinnis to obtain information on travel arrangements.   Do not make ANY arrangements to travel to a meeting without first talking with our Research Track Coordinator to make sure your travel is reimbursable. Do NOT buy your own tickets.

Class of 2026 (Trek Curriculum) Clerkship Year

Clerkship Year Assignment Due Dates

- **Submit a scientific abstract to Western Medical Research Conference (Carmel)** by the deadline (Abstract submission usually opens in late July and usually closes mid-September--don't wait until the last day)

- Submission of an abstract to Carmel AFMR during the Clerkship Year is strongly encouraged. If the student and mentor determine the work is not ready for submission, the student can elect to submit for the Carmel AFMR during the Postclerkship Year (Year 3 or 4)
- Note that the student must submit all co-authors disclosures during the abstract submission process and this may take some time to collect—so start this process early.
- **Annual Research Forum Poster and Abstract Submission**: Submit a poster and abstract (can be the same abstract as you submit for the Carmel meeting) by the deadline (Fall 2023—abstract and poster submission deadline TBD-**Note the poster and abstract MUST be submitted by the registration deadline**). This will be a virtual event.
- **Annual Virtual Research Forum Presentation: December 5, 2023- Note this is a virtual event. You will be scheduled to present with a small group of students either from 1-2 or 2-3 PM.**
- The LIC year is a busy year. Other than the submission to Carmel meeting and the Research Forum submission we have very few requirements during the LIC year for the Research Track. However, try to advance your project during this year if possible. For example, you may be able to work on data analysis, making tables, working on the introduction and methods section of a manuscript, etc. We understand that depending upon your project you not be able to do much. **Stay connected with your mentor so they understand when to expect you back to working regularly on your project and don't think you've abandoned it.**
- **Project Update Survey: Deadline- June 24, 2024**; Students will be assigned in Canvas to complete a brief update survey on their project. This will be submitted online.

Clerkship (LIC) Year Requirements

- Students will present their research plans and findings:

    - To campus-wide peers and faculty judges: In a virtual poster presentation format at the annual Anschutz campus Student Research Forum (this is optional this year)

    - To regional peers and faculty at the Western Section of the American Federation of Clinical Research in Carmel (If determined by the student and mentor that the research is not ready for submission, the student will submit to Carmel in the Postclerkship phase)

Clerkship Year Goals

1. Demonstrate progress towards the completion of your research project
2. Publicly communicate understanding of the project to others

Learning Objectives- Research Forum

1. Create a research abstract and poster describing the research question, methods, results and conclusions.
2. Present research to peers and faculty in a combined oral presentation (poster format)
3. Effectively respond to comments and questions from peers and faculty about the research project.

Learning Objectives-Western Student Medical Research Forum

1. Deliver an oral presentation of the individual research project (oral podium or poster) to peers and faculty at a scientific meeting.
2. Effectively respond to comments and questions from peers and faculty about your research

Learning Objectives- Individualized Research Experience

1. Further develop a relationship with a scientific mentor
2. Advance your progress toward completion of a research project

National Meeting Travel: Occasionally students make great progress on their projects and their mentors may suggest presenting the findings at a national meeting. Please see the section on National Meetings in this syllabus and also see Appendix B for information on travel to most national meetings. **If you are looking for information on Travel/Procedures for the Carmel meeting, see Appendix A**. **If you are looking for information on Travel/Procedures for other meetings see Appendix B.** Do not make ANY arrangements to travel to a meeting without first talking with our Research Track Coordinator to make sure your travel is reimbursable. Do NOT buy your own tickets.

Class of 2025 (Trek)-End of Clerkships, Advanced Science Courses, AI/Electives

- Students who did not go to the Carmel (AMRC) Conference last year, should plan to submit an abstract and go this year if at all possible. The abstract submission portal is not yet open, but usually opens by Aug 1. Usually the abstract submission period closes in mid-September (actual dates for this year have not been released). Plan ahead and get your abstract prepared. Note, that to submit your abstract you will need to have distributed it to all co-authors for their feedback prior to finalizing. There will be a form that needs to be filled out collecting your co-authors disclosures/conflicts of interest—so plan for time to be able to do that by the submission deadline. **The Carmel, CA (AMRC) conference this year will be January 17-20, 2024.**

Assignment Due Date

- **Project Update Survey: 5/13/2024,** This assignment will be in Canvas and will be an online survey for you to complete regarding your Research Track project.

Session Dates

- ICC/Basecamp Track Time: January 2024 (Exact date and time TBD)

Requirements (End of Clerkships, Advanced Science Courses, AI/Electives)

- Students will provide an update on the status of their project.
- Students will engage with project mentor and continue to plan (or complete) research months for this academic year through graduation
- Students and their mentor will identify a national meeting to submit an abstract to for presentation (if not done previously).
- Students will work toward submission of a first-authored paper to a peer reviewed journal.

Goals:

1. Gain experience reading and assessing scientific posters and oral presentations.
2. Demonstrate progress towards the completion of your research project

Learning Objectives- Individualized Research Experience

1. Further develop a relationship with a scientific mentor
2. Advance your progress toward completion of a research project

Students may spend up to **12 weeks (three 4-week rotations) in a full-time elective research experiencein the post-clerkship phase.**

Students are required to do at least 2 required Research elective months in the post-clerkship phase: **one of IDPT 8601 and one of IDPT 8602** (IDPT 8601 is the first research track elective month and IDPT8602 is the second one). Grades for 8601 and 8602 will be assigned as Honors/High Pass/Pass/ or Fail for work completed in these courses in addition to the IDPT 8095 (Research Track) Pass/Fail grade. **Important: Please look at the grading outcomes expected for 8601 and 8602 (grading rubrics are included in this syllabus) when planning your electives so you understand the expectations for products at the end of each elective.**

It is recommended to complete the first 4-week rotation prior to August of the 4th year It is recommended to start the second 4-week rotation two to three months after the first rotation. Both the first and second rotation should be completed before December 1 (preferably before November 1) of the 4th year. **Your manuscript draft is due December 1 of your 4th year of medical school)— your submission of the manuscript to a peer reviewed journal is due by February 1 of your 4th year of medical school. Plan ahead so you be prepared to meet the deadlines**.

- Research Track Electives 8601 and 8602-Students will receive a stipend* for successfully completing elective 8601 and 8602. 8602 may be taken a second time for an additional 4 weeks of credit and a grade, but there is no stipend for the second 8602 enrollment. ***Note occasionally students on a Visa do not qualify for stipends, however, to complete the requirements of the Track, students need to complete the 2 Research Track electives described below .(For Students on a Visa: Unless your Visa status or research work place has changed, if you qualified for the summer stipend after 1st year, you should be approved for a stipend).**
    - Course 8601: a major goal should be to have at least a very good draft that can be circulated to co-authors by the end of the month. Many students will be able to submit their paper to a journal during this month. (see the grading rubric in this syllabus for the full expectations during this month)
    - Course 8602: Usually this elective is taken 2-3 months after course 8601.This elective is appropriate for writing, rewriting and/or resubmission of a submitted manuscript. Course 8602 may be repeated once for credit; however, there is no stipend for the second 8602 month. Please see the grading rubric in this syllabus for the full expectations during this month.
    - **Work submissions (assignments) for 8601 and 8602 – Due the last day of each 4-week course**

Class of 2024 Phase IV (Hybrid Curriculum)

Phase IV Assignment Due Dates:

- **Draft of First author manuscript: Deadline December 1** <u>OR</u> a copy of a First author manuscript you have submitted to a peer reviewed journal <u>OR</u> a copy of a published peer reviewed journal paper (of your research work during medical school)
- **Evidence of Abstract Submission to a National Meeting: December 1, 2022**
- **Submit a copy of your final manuscript submitted to a journal** (or pdf of published article) by **February 1, 2024**
- **Evidence of Manuscript Submission to journal** (email confirmation of submission or acceptance) **– February 1, 2024**
- **Capstone Data Collect Survey**: April 2024 (Date TBD). This will appear as a Canvas assignment and can be submitted online.
- **Capstone Presentation**: April 2024 (date TBD)

Phase IV Session Dates:

- ICC/Transition to Residency Basecamp Track Time: Track time will occur once during this April/May Basecamp (Date TBD)
- Capstone Presentation: April 2024 (Date TBD)

Requirements Phase IV

- **Students are required to do at least 2 four-week required full-time Research elective experiences in the post-clerkship phase**: **4-weeks of IDPT 8601 and 4-weeks of IDPT 8602** (IDPT 8601 is the first research track elective month and IDPT8602 is the second one). Students can elect to do an additional research month (8602 can be repeated once) but no stipend is available for the 3rd month. Grades for 8601 and 8602 will be assigned as Honors/High Pass/Pass/ or Fail for work completed in these courses in addition to the IDPT 8095 (Research Track) Pass/Fail grade. **Important: <u>Please look at the grading outcomes expected for 8601 and 8602 (grading rubrics are included in this syllabus) when planning your electives so you understand the expectations for products at the end of each elective.</u>**

  - It is recommended to complete the first four-week rotation in the first few months of your 4th year (August or earlier); It is recommended to start the second 4-week rotation at two to three months after the first rotation, Both the first and second rotation should be completed before Dec 1 (preferably before Nov 1) of year 4. Students will receive a stipend* for IDPT 8601 and 8602. <u>8602 may be taken a second time for an additional 4 weeks of credit and a grade, but there is no stipend for the second 8602 enrollment</u>.

  - ***Note occasionally students on a Visa do not qualify for stipends, however, to complete the requirements of the Track, students need to complete the 2 Research Track electives described below (unless your Visa status or research work place has changed, if you qualified for the summer stipend after 1st year, you should be approved for a stipend).**

    ☐ Course 8601: May-August – goal should be to have first submission of first author paper by the end of this month (or at least a near final draft)

    ☐ Course 8602: Sept-Dec (generally 3-4 months after first month) -appropriate for finishing paper and submitting, or rewriting paper and resubmission

- □ Note: Research Track students may need to complete the 8601 and 8602 electives in their mentor's lab in the Aurora/Denver or Ft. Collins (depending on mentor's location) area during Phase IV.

- □ Work submissions (draft manuscript, evidence of abstract submissions, evidence of manuscript submission, etc.) are to be uploaded into Canvas – Due the last day of each elective

- Students must submit an abstract and present at a national non-student meeting prior to graduation (in addition to the Carmel meeting) . **Note: some students presented virtually at a national meeting during COVID—this is acceptable to meet your Research Track requirement for presentation at a national meeting.**
- **Submit a draft first-author (or co-first authored) manuscript to Canvas or a final first author manuscript to a peer-reviewed journal -Submit by December 1st**
  - ▪ This is what your fall Research Track IDPT 8095 course grade is based on.

- Submit a **final first-author (or first co-authored) manuscript to a peer-reviewed journal and evidence of submission -Submit by February 1, 2023.**

- Poster and oral presentation at Capstone

Phase IV Goals

1. Submit a manuscript to a peer reviewed journal
2. Submit and have an abstract accepted to a national meeting (if not previously accomplished). Present at the meeting, if abstract accepted.
3. Submit an abstract and attend the Carmel meeting (if you previously did not submit an abstract to this meeting).

Phase IV Learning Objectives

1. List the elements needed for a scientific abstract.
2. List the generally accepted basic elements needed in a research manuscript that will be submitted to a peer reviewed journal.
3. Analyze and interpret the results of your research project.
4. Describe the potential weaknesses or limitations of your individual research project.
5. Describe the process from start to finish of writing and submitting a research manuscript to a peer reviewed journal.
6. Respond effectively to questions during presentation of your scientific research.

Planning for and Attending National Meetings

Remember abstract deadlines are often 6 months before a meeting. Contact the Research Track Coordinator (Mary McGinnis) before submitting an abstract to ensure the meeting is eligible for the Research track to provide funding for it.

If you submit an abstract and plan to present at a national meeting be aware of the following:

- Research Track only has funds available for each student to support travel to the Carmel meeting (Western Medical Research Conference) and travel to one other national meeting to present your Research Track work.
- It must be a national, non-student meeting in the **48 continental** United States.
    - **Contact our coordinator, Mary McGinnis, to get information on how to make travel arrangements for a national meeting.** When emailing, please include the name of the meeting and the location you will be traveling to. In that email, also include whether or not you have previously traveled to a national meeting (other than the Carmel meeting) that the Research Track has paid expenses for. **Do not pay for anything prior to contacting the Research Track Coordinator to make sure we will be able to fund your trip. DO NOT buy your own tickets (or we may not be able to reimburse you for your expenses).**

- **NO INTERNATIONAL CONFERENCES ARE SUPPORTED BY THE RESEARCH TRACK. Meetings in Alaska and Hawaii are also not fundable. Therefore we can not pay for and you can NOT be reimbursed by the Research Track for expenses related to international meetings or meetings in Hawaii or Alaska.**
    - Occasionally your mentor may suggest an international meeting to present your work. Please let your mentor know that **international meetings are not funded** (and you can't be reimbursed for expenses) by the Research Track. If your mentor still believes you should go AND has alternate funding for you to go (grant funds, department funds etc.) you can take advantage of that opportunity, but all of your travel and reimbursements will need to be arranged through whoever is funding you for the meeting (the Research Track will not be able to help with travel arrangements or reimbursements for that). Also be aware that the University has additional policies/requirements regarding international travel and reimbursement—**do not make any travel/registration/hotel arrangements without first working with the department funding you to make sure you are following all of the requirements** (or you may end up not being able to be reimbursed for any of your expenses).

- Please be thoughtful in planning which national meeting to attend. Since abstracts are often due 6 months in advance of a meeting-you may already be planning to submit an abstract and attend a meeting. Meetings which occur between Nov 1 and Jan 31 of your 4th year may conflict with residency interviews. Dates to potentially avoid: November 1 – January 31 (of 4th year). A meeting during this time may be possible, but know you could have a conflict with an interview date. Students are also not allowed to travel or be gone during match week or graduation week.

- You must obtain permission to travel to the meeting (and be away from your clinical experiences) from the Office of Student Life as soon as you know your abstract has been accepted (you need to get your absences approved through OSL). You must also notify whoever is supervising you during your elective or clinical rotation of your planned absence. If you are in the LIC (Clerkship Year) you will also need permission to be excused from your LIC Director. Note that during the LIC year, research days are limited and you may need to take personal days if you wish to travel to a national meeting during the clerkship year (check with your LIC Director).

- Research Track students are NOT eligible to attend a national meeting during the LIC immersions, Match week, Capstone (f you are an M4), or during graduation week.

- Please be thoughtful in planning which meeting to attend. Meetings which occur between Nov 1 and Jan 31 of each year may conflict with 4th year students' residency interviews. Dates to potentially avoid: November 1– January 31.

Attendance and Conduct Expectations

Please refer to SOM MD Program Policies and Procedures for the Trek or Hybrid Curriculum (whichever is appropriate) accessible at this link for details on absence policies and conduct expectations:

- **[Policies and Procedures](#)**

Preclerkship Year: We limit the number of required sessions in the Research Track since most of the work in the Track is focused on your individual project work with your mentor. However, we will have some required sessions (via Zoom or in-person) during the year. During the period from November through August of the Preclerkship Year, students are allowed to miss one <u>required</u> session (without an excused absence), only if they notify the research track coordinator and research track director in advance. If student is late to or leaves early from 2 required meetings, the research track director may count this as a missed session.

- **Failure to attend a required session, without an excused absence, will be considered a Professionalism issue:**
  - 1st unexcused absence in a year/phase –an Assistant Dean will contact the student, the situation will be discussed, and the student will be warned that a second infraction will result in filing a Professionalism Feedback Form.
  - 2nd or subsequent unexcused absence in a Phase – the student will meet with Dr. Anderson, who may file a Professionalism Feedback Form.
  - At any time during a Phase, if a second Professionalism Feedback Form is filed owing to a student's unexcused absence at a required session, the student's case will be referred to the Professionalism committee.
- Otherwise, you will be expected to organize your own schedule, with guidance from your mentor.
- Having a negative impact on the small group learning environment, including arriving late for more than one session, will be treated as a separate Professionalism issue.

Course Evaluations
- Students will be required to complete online evaluations.

Grading - How will Students be Graded in the Research Track?

For a full description of grading policies, please refer to the SOM MD Program Policies and Procedures for the Trek/Hybrid, or Legacy Curriculum at this link:

- **[Policies and Procedures](#)**

Additional Grading Information Specific to Research Track:
- **All Students: A passing grade is assigned in the Required Research Track Courses IDPT 5094, 5095, 6095, 7095, and 8095 based on successful completion of the research track requirements for that semester.**
- **Hybrid Students:** The grades of "Honors" and "High Pass" are not available for the required Research Track Courses (IDPT 5094, 5095, 7095, 8095). A grade of P (Pass), F (Fail), I (Incomplete), IP (In Progress), PR (Pass with Remediation) or W (Withdrawal) will be assigned in accordance as described in the SOM Policies. W (Withdrawn) will appear on the transcript for those that withdraw from a course.
- **Trek Students:** The grades of "Honors" and "High Pass" are not available for the required Research Track Courses (IDPT 5094, 5095, 7095, 8095). A grade of P (Pass), F (Fail), IP (In Progress) or PR (Pass with Remediation) will be assigned in accordance as described in the SOM Policies. W (Withdrawal) will appear on the transcript for those that withdraw from a course.
- **All Students:** The grades of "Honors and "High Pass" are available in the Postclerkship Research Elective courses 8601 and 8602 if the student achieves the standards described for "Honors" or "High Pass".
- **All Students:** For the Fall semester of the Preclerkship Year (Plains), the student will receive a grade in Mentored Scholarly Activity (MSA) instead of Research Track (since students are still in the application process for Research Track until late in the semester when decisions are made about Research Track acceptance). **Please see the MSA grading policy for information regarding Preclerkship Year MSA Fall Semester grades.**
- **All Students:** Students who are placed on academic warning, probation, or are not advanced to the next year may be notified by the Promotions Committee that they can not participate in electives (including Research Track activities). Students who have not already successfully completed that semester's Research Track requirements may need to be moved to the Mentored Scholarly Activity program (which generally has less rigorous requirements) in order to give the student more time to focus on their classwork and be successful. Students with ongoing academic difficulties, but without a Promotions Committee mandate, may still be advised that moving to MSA would be in their best interests.

As noted above, grading is slightly different for the Hybrid students than for Trek students. Refer to the Policies and Procedures link (above) for the Hybrid or Trek students for more details on definitions for each grade. The I grade is only used in the Hybrid grading scheme. Also note that the Policies and Procedures contain a more detailed explanation of IP, I (Hybrid only), PR, and F grades.

Grading Rubric for Postclerkship Phase Research Track Courses (IDPT 8601 and IDPT 8602)

IDPT 8601 - Grading Rubric

Honors:

Completion of an abstract appropriate for submission to a non-student national meeting (student must submit name of the meeting, abstract submission dates, and intent to attend and present at the meeting if the abstract is accepted). If the submission deadline has passed, student must provide evidence of abstract submission, and, if available, the results.

And

Submission of a first-author (or co-first author) manuscript for review for possible publication (student must provide a copy of the manuscript and evidence of submission, such as an email from a scientific journal or book editor).

High Pass:

Completion of an abstract appropriate for submission to a non-student national meeting (student must submit name of the meeting, abstract submission dates, and intent to attend and present at the meeting if the abstract is accepted). If the submission deadline has passed, student must provide evidence of abstract submission, and, if available, the results.

Or

Submission of a first-author (or co-first author) manuscript for review for possible publication (student must provide a copy of the manuscript and evidence of submission, such as an email from a scientific journal or book editor).

Pass:

Evidence of progress towards completion of a scientific project, including: A draft of a first-author (or co-first author) scientific manuscript **and** the current status of the project and a reasonable plan, including a time-line, for how the project and the accompanying manuscript will be completed

Or

A submitted non-first author manuscript with an accompanying detailed description of the role the student played in the project.

Or

A description of what barriers prevent completion of the project, what attempts were made to overcome the barriers, and, if the project is not to be completed, what was learned from the project.

IDPT 8602 - Grading Rubric

Honors:

Evidence of <u>submission</u> of an abstract to a non-student national meeting. Student must provide a copy of an email from the meeting or meeting sponsor notifying you of abstract acceptance for the meeting.
And
Evidence of <u>submission</u> of a first-author (or co-first author) manuscript for review for possible publication (student must provide a copy of the manuscript and evidence of submission, such as an email from a scientific journal or book editor).

High Pass:

Completion of an abstract appropriate for <u>submission</u> for oral or poster presentation at an non-student national meeting. Student must submit name of the meeting, abstract submission dates, and intent to attend and present at the meeting if the abstract is accepted.
OR
Submission of a first-author (or co-first author) manuscript for review for possible publication (student must provide a copy of the manuscript and evidence of submission, such as an email from a scientific journal or book editor).

Pass

Completion of an abstract appropriate for submission to a non-student national meeting (student must submit name of the meeting, abstract submission dates, and intent to attend and present at the meeting if the abstract is accepted), **AND** Submission of a <u>non-first author</u> manuscript with an accompanying detailed description of the role the student played in the project,
OR
Completion of an abstract appropriate for submission to a non-student national meeting, ***AND*** submission of a first-author manuscript to the Track Director in the style of and meeting all requirements of the MSA program, ***AND if project was not completed,*** a description of what barriers prevent completion of the project, what attempts were made to overcome the barriers, and, what was learned from the project.

Withdrawing from the Track

If a student is unable to continue or wishes to withdraw from the Research Track, the student must meet with the Research Track Director to review the issues. If the Research Track Director agrees that continuing in the track is not feasible and/or in the student's best interests, the Research Track Director will advise the student to meet with the Associate Dean in the Office of Student Life to discuss a plan to withdraw from the Research Track and transfer to the Mentored Scholarly Activity (MSA) program. Once a decision has been made that the student will withdraw from the Research Track program, the student must contact the MSA director to discuss a plan for the student's MSA project.

Resources Available to Research Track Students

HEALTH SCIENCE LIBRARY—the Research Track program has librarian who can help with research for the background sections of proposals and with systematic reviews. Librarians can assist with:

- Problem identification and focus
- Question formulation
- Search strategy
- Identifying resources for literature review
- Organizing and managing citations
- Manuscript style requirements

Research Track students can contact the librarian to schedule a FREE individual consultation. Most consultations are scheduled for an hour and provide training and help in customizing your research strategy for PubMed, Google Scholar, or other resources such as EMBASE (European and international medical journals), Cochrane Library (evidence based systematic reviews), genetic/molecular biology or legal/historical/ethics resources. After the initial consultation librarians are available via email, phone or in person for follow up.

Library Contacts:

- Basic Science Research Wladimir Labeikovsky, PhD (303-724-2114)
- Clinical Research Kristen DeSanto, MSLS, MS, RD, AHIP (303-724-2121)
- Global Health Nina McHale, MSLS, AHIP (303-724-2133)
- Humanities & Social Sciences Christi Piper, MLIS, AHIP (303-724-2170)
- Public Health & Epidemiology Ben Harnke, MLIS (303-724-2146)

Students can also contact the Library via the Ask Us! Link on the Library's homepage. Please provide information on your research topic or identify your thematic area as part of your Ask Us! Request.

Writing Center Resources:
The campus writing center is an excellent resource to help you with your rough and final draft papers. The writing center is available as follows:

- Online Drop Box, The Online Drop Box is an asynchronous service whereby students submit a document and receive feedback in about four business days. CU Anschutz students might be especially interested in our Principles of Scientific Writing Handout. More handouts available on the How-To Guides page.

  Biostatistical support – The Research Consulting Laboratory is available for teaching on statistical approaches without charge to Research Track students. Please be sure to identify yourself as a Research Track/MSA student.

Research Track Mentor Expectations:

- Meet with students to explore projects and develop an Individualized Research Plan (to be used Work with the student to develop a plan that is feasible in the limited time available to a medical student, will lead to a first-author publication, and where the manuscript reflecting the results obtained in Phases I and II can be deferred to Phase IV for submission.
- Sign off on student agreement, including meeting/communication schedule, and work on your professional relationship
- Review student's critical literature reviews
- Work with the student on data collection and analysis
- Help the student develop a first author paper
- Help develop and review the work plan and timing
- Work with the student to write abstracts and to choose an appropriate scientific meeting for abstract submission and attendance during Phase IV
- Help the student gather, analyze and prepare for capstone presentation
- This is a 4 year project-- the mentor and student should work together for that entire period
- Always be attentive to the student's rigor and professional development.