

# University of Alabama at Birmingham Medical Scientist Training Program

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## Handbook of Policies and Procedures



This document is regularly updated and reflects policies and procedures current as of June 2015. If changes to policies or procedures occur, then an addendum notice will be sent to all parties as well as a link to the updated policy online.



## I. Rationale for the Program

The focus of the Medical Scientist Training Program (MSTP) at the University of Alabama at Birmingham (UAB) is to train outstanding young people from across the United States in the intellectual discipline of being a scientific investigator and a thoroughly trained physician. Although the ultimate career pathway for individual trainees may range from the conduct of basic biomedical research to clinical trials of novel therapeutic agents or procedures, the net effect of this cadre of investigators will be to increase the translation of basic biomedical understanding into clinical practice.

## II. Administrative Structure

### A. Program Leadership

The MSTP Program Director is appointed by the Dean of the UAB School of Medicine (SOM) and oversees all aspects of the Program. The MSTP Associate Directors are nominated by the Director and also appointed by the Dean of the School of Medicine. The MSTP Program Manager is a full-time staff member, who reports to the Program Director and manages all aspects of the program. The MSTP Program Coordinator assists with administrative duties and coordinates summer programs affiliated with the Program Director. The UAB MSTP offices are located at 1825 University Boulevard in the Shelby Building, Suite 121. The official UAB MSTP website is <http://www.mstp.uab.edu>.

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### B. Program Advisory Committee

The MSTP Advisory Committee (MSTPAC) consists of nine members from the SOM faculty, one member from the School of Engineering, and one member from the School of Public Health. The MSTP

Director, MSTP Associate Director, and MSTP Clinical Associate Director occupy three of these positions. There are no specified terms for the Director or Associate Directors. Each new committee member is nominated by the Director and appointed by the Dean of the SOM to a 4-year term. Two members rotate off the committee and two new members are appointed each year. In addition to serving as a policy advisory group and admissions committee for the program, each committee member mentors 3-5 students in the program. The MSTP mentor is expected to meet with each student at least once yearly and serves as either an *ex officio* or full member of the student's dissertation committee. The MSTP mentor is expected to submit yearly written evaluations of each student in his/her clinical years at the beginning of each new academic year (August/September). For students in their graduate years, the MSTP mentor is expected to submit a summary of the twice yearly thesis committee meetings within 2 weeks of each meeting. The MSTPAC has four formal meetings per year, in which each of the following topics is covered: 1) recruitment issues; 2) evaluation of student progress, retention, and time in the research lab; 3) curriculum review; and 4) admission decisions for new students.

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### C. Program Faculty

MSTP Training Faculty must hold an appointment in the UAB Graduate School and a primary or secondary appointment in one of the participating graduate departments as well as in one of the Graduate Biomedical Sciences (GBS) interdisciplinary themes. In addition, faculty must be reviewed and accepted by the MSTPAC before accepting students for the PhD research phase of the program.

For faculty in departments participating in the GBS themes, faculty will first undergo review by a GBS Faculty Review Committee. This review will be based on an application package that documents extramural research support, publication record, prior training record, involvement in training activities, and the support of the department chair for the faculty to take graduate students. Faculty that are approved as GBS Faculty will then undergo a secondary review by the MSTPAC for involvement in physician-scientist training and for commitment to the unique aspects that training of MD/PhD students entails. Allowances are made for newly recruited, young faculty members just starting an independent research program, who will be paired with a senior faculty member acting as an advisor. The foremost criterion for approval is the ability of potential mentors to provide an excellent training experience for MSTP students. Faculty will be reviewed by the GBS Committee and the MSTPAC every 3 years on a rotating basis to ensure continued academic excellence. Students select program faculty members from the list, which is updated continuously on the MSTP website.

#### **D. Rotation Mentors**

MSTP students are required to complete three separate research laboratory rotations with three different mentors prior to selecting a mentor for their doctoral dissertation. The laboratories are chosen by the student and are based on the student's area of interest and information provided by each faculty on his or her research program. Information on faculty research programs can initially be found on the MSTP Faculty Finder and GBS Pages: <http://www.uab.edu/medicine/mstp/research>; however, students are expected to get further information from one-on-one meetings with potential rotation mentors.

Goals of the rotation experience are as follows:

- To help MSTP students make better informed decisions regarding research advisor selection
- To give students a first-hand experience in the research culture and mentoring styles of different laboratories
- To give students the short-term opportunity to closely consider research in multiple areas of biomedical sciences
- To expose students to different sizes of laboratories, both large and small
- To expose the student to new techniques
- To help the student to begin to think like a scientist particularly in the areas of experimental design and data interpretation

Mentors are permitted considerable flexibility in assigning rotation activities and are expected to adhere to the following criteria:

- Design a project for the student (students should not function as technicians)
- Involve students in all seminars, journal club activities, and laboratory work-in-progress activities during the rotation period
- Meet weekly with the student
- Discuss goals for the rotation

- Discuss laboratory activities expected of the students
- Explain all laboratory guidelines and/or policies to be followed by the students
- Ensure that all necessary training is completed (i.e. biohazards, animal handling, human studies, etc.)
- Provide background reading for the project

## E. Thesis Mentors

The program has high expectations that students and Thesis Mentors will focus both on outstanding scientific productivity and completion of the PhD research within a 3 - 4 year time frame. Thesis Mentors are responsible for providing clear communication of the requirements and expectations to the student, guidance in the scientific focus and technical expertise for their project, and completion of their administrative responsibilities to the MSTP. Thesis Mentors must follow the given criteria:

- Clearly explain the formal requirements for completing the PhD degree in their particular department/theme, including the formal course requirements, the procedures for Advancement to Candidacy (both written and oral examinations), **the formation of a Dissertation Committee within 6 months of the student starting in the lab**, and rules concerning the writing of the Dissertation and formal completion of the PhD degree
- Discuss expectations for scientific productivity with the student. Issues including the scope and focus of the student's project, the number of first-author papers expected, and specific milestones of accomplishment over the next several years should be discussed and agreed upon between the mentor and student
- As stated, the Dissertation Committee should be formed and the first meeting held no later than 6 months following the student's entry into the mentor's laboratory. The MSTP Mentor, a member of the MSTPAC assigned to each student, serves as a full member of the Dissertation Committee
- If the Thesis Mentor has not previously graduated a PhD student, the MSTP requires that a Senior Advisor also be identified for the MSTP student. This Senior Advisor should be appointed as a member of the thesis committee (Appendix II)
- **Effort Reports are an important part of any funded work.** There are several types of funds that students may be paid from that require them to certify an Effort Report. This report indicates where the funding for the student's stipend came from over the past 3 months. If a student is paid from the mentor's funds, the effort report must be certified by the thesis mentor (in order for the student to continue to receive his/her stipend). To do so, login to UAB Admin Systems: <http://www.uab.edu/adminsys/>. Click on Oracle HR & Finance. Login using your Blazer ID and password. At the next menu, click on UAB Effort Report User and then Effort Report Worklist, where the effort report that needs to be certified can be viewed
- MSTP students are required to have two committee meetings per year throughout their tenure in the lab (i.e. once every 6 months)
- Submit a written progress report to the MSTP Program Manager within 2 weeks of each dissertation committee meeting. A form for this progress report can be found in Appendix II and on the MSTP website

- If meetings are not held every 6 months and the written progress report is not received by the MSTP office within 2 weeks of the committee meeting, the thesis mentor will be put on a probationary status and will not be allowed to take new MSTP rotation or thesis students until corrective action is taken
- Thesis Mentors should guide the student in writing manuscripts for publication, developing informative poster presentations, responsible conduct of research, and presenting scientific seminars
- The Thesis Mentor should provide the student with knowledge concerning the mechanics for preparation and submission of grant applications. Additionally, the mentor should assist the student in the development of insight and skills associated with grantsmanship.
- All MSTP students are required to submit individual training grants to the NIH (F30/F31) during their first year of thesis research. Assistant from the MSTP Office in regard to budget, biosketches, and format is available as needed. (Appendix X and XI)
- Provide a written final evaluation of the student's thesis years upon the student's completion of the PhD dissertation
- Provide financial support as described for the first 4 years the student is assigned to the lab and all of this support after the student has been in the lab four years
- Each faculty member may only be the thesis mentor for 3 or fewer MD/PhD students at any one time.

Thesis Mentors are also responsible for closely monitoring the scientific progress of students and maintaining a productive research track.

For students entering research labs, the MSTP will pay for 100% of the student's stipend, tuition, and fees for 1 year after the student selects a research lab (usually starting in September of the GS-I year). Thereafter, the Thesis Mentor is responsible for providing financial support for 100% of the student's stipend for 3 years. If the student is awarded an individual training grant award or appointed to an institutional training grant, the Thesis Mentor is responsible for any remaining stipend not covered by the training award. This remaining stipend **cannot** be paid from other federal funds. MSTP students are not allowed to have dual assignments. **They are appointed as either Graduate Assistants or Graduate Student Trainees, but cannot have a combination of appointments.** The MSTP will cover tuition and fees for the first 4 graduate years.

For students who are accepted into the MSTP after an Advanced Standing application, the financial responsibility for the student's stipend during their first year in the program will be determined on a case-by-case basis. Thereafter, the financial responsibility is as described in the paragraph above.

**For all students, after 4 years, the Thesis Mentor will be responsible for the student's entire stipend, tuition, and fees until their thesis is successfully defended and they return to clinical rotations.**

These costs can be covered by a research grant, an individual NRSA award, or another NIH training grant subject to some limitations. It is required that the student be finished with his/her PhD prior to re-entry into the MD curriculum. In order to schedule the student's return to MD curriculum, the Transition from Research Phase to Clinical Phase Form must be completed (see Appendix II). This form

indicates the date that the student will finish his/her PhD and must be signed by the student, the Thesis Mentor, and the MSTP Director and delivered to the Associate Dean for Medical Students at least three months prior to the planned transition. Details on this transition can be found in Appendix IV.

Should the Thesis Mentor leave UAB, the student has the option of going with the mentor in order to complete the research project. However, the same time line for completion of the research project is to be maintained. If there is a significant probability that a Faculty member plans to leave UAB within a year, no new MSTP students should be recruited into that faculty member's lab.

#### **F. Program Departments, Interdisciplinary Themes, and PhD Programs**

All of the Joint Health Sciences Departments and Interdisciplinary Themes that sponsor PhD programs within the UAB Graduate School can serve as the sponsors for MSTP students in the graduate phase of the program. In addition, departments in the UAB School of Public Health and UAB School of Engineering may sponsor MSTP students and should provide financial support for the program on a pro-rated basis. (See Appendix III)

#### **G. Student Representatives and Committees**

Students are expected to become involved in programmatic activities. UAB MSTP Opportunities are discussed as follows:

***Student Representatives:*** The student representatives are responsible for maintaining contact between students and the administration. Although they can always go directly to the administration, students should feel free to contact their representatives about any problems they may see with the program. The reps should also communicate viewpoints/ideas of students and be able to speak on behalf of various students. Reps are expected to attend monthly MSTP staff meetings and be involved with the inner workings of the program. Reps are the voice of the students in discussing program policies, both new and old. Therefore, they are often able to communicate new requirements and explain the reasoning behind them. These students also serve as our MSTP Representatives to the Graduate Student Association (GSA).

- Rising MS-II (1 year term)
- Rising GS-I (first year of 2 year term)
- Rising GS-II (second year of 2 year term)
- Rising GS-III/IV (1 year term)
- MS3/MS4 (1 year term)

***Event Committee:*** The Event Committee is responsible for the Annual MSTP Retreat and the Annual Spring MSTP Graduation Reception. In addition, this group is responsible for helping to organize all our student interactions during recruiting such as student hosts, dinners, social hours, the second visit party, and so on.

**Communications Committee:** The Communications Committee is responsible for writing and producing “The Vulcan Letter,” our quarterly newsletter that chronicles all things MSTP and showcases the energy and fun spirit of our band of merry pranksters while highlighting the national recognition our students and our program continues to accrue. It is also a great opportunity to keep in touch with our alumni, while learning about their experiences after graduation and gaining some insight into what our future may hold. This committee is also responsible for making our web site informative and up-to-date for students and faculty involved in the program.

**Griffin Society Representatives:** This committee is responsible for interaction with our Physician-Scientist Advisory Group to help set up our Clinical Continuity Experiences. This includes identifying physicians in various specialty areas for shadowing opportunities and interacting with the Medicine Residency Program Directors, to identify residents willing to work with our students and assist them with maintaining their history and physical skills.

**Southeastern Medical Scientist Symposium (SEMSS)/ American Physician Scientist Association (APSA) Representatives:** The SEMSS is hosted by MSTP students from UAB, Emory, and Vanderbilt and seeks to (1) foster dialogue and networking among MD/PhD trainees at institutions in the Southeast United States; (2) provide opportunities to present research beyond a school-wide setting; and (3) educate undergraduate students possibly interested in MD/PhD programs.

The SEMMS is sponsored by the American Physician Scientist Association. The APSA is a national organization dedicated to addressing the needs of future physicians and their training and career development. They have an annual meeting each year in Chicago (usually in April) that is held in conjunction with the American Society for Clinical Investigation/Association of American Physicians. This committee helps to plan the SEMSS (which should be at UAB in 2016) and at least one member of this committee is sent by the MSTP to represent us at the National APSA meeting. One member of this committee will be named as the official UAB APSA Institutional Representative. The responsibilities of the institutional representative (as detailed from the APSA website) are as follows:

- Serve as a liaison between APSA and the physician-scientist student population at the represented institution. This includes, but is not limited to, gathering feedback with regard to APSA directives and providing a voice for their students within APSA, as well as announcements of APSA events and projects.
- Strongly encouraged to attend the Annual APSA Meeting in order to represent their institution during the APSA Business Meeting
- Strongly encouraged to be an active member of APSA by serving on one of APSA’s four standing committees (Annual Meeting, Finance, Policy, and Public Relations). These standing committees not only rely on the APSA Institutional Representatives and other APSA Members to achieve their goals but also heavily rely upon them for continuous feedback and advice to guide the individual committee’s path and future.
- Gain the opportunity to serve on the APSA Executive Council. Once an APSA Member has served in an Institutional Representative position, he/she becomes eligible to run for any of the positions on the Executive Council including President, Vice-President, Secretary, Treasurer (Finance Committee Chair, Annual Meeting Committee Chair, Policy Committee Chair, Public

Relations Committee Chair, Member-At-Large (to represent the MD-PhD voice), Member-At-Large (to represent the MD-only voice), and Member-At-Large (to represent the social sciences / humanities).

- Strive to exemplify the goals and missions of APSA on the local level at their home institution.

The SEMSS is fully organized by current MSTP students organized into 3 committees. Each committee is composed of representatives from each of the hosting institutions.

- **Executive Committee:** The primary responsibility of the UAB Executive Committee (EC) representative is to lead the UAB representatives in developing a successful conference. Toward this end, the UAB EC representative must work closely with the UAB Programming and Personal Relations representatives, personally meeting with each representative on a consistent basis. Additionally, the EC representative must communicate frequently with the EC members from other participating institutions. With the EC representatives from partner institutions, the UAB EC representative will (1) draft a budget and ensure the necessary funds are available by composing and submitting grants / letters of request to intra- or extramural funding sources; (2) secure a location at which the conference will be held; (3) maintain contact with the APSA; (4) coordinate the conference in the weeks leading up to the event (i.e.: review abstracts, publish abstract book / program, secure poster presentation boards, print nametags, etc.); and (5) assist the UAB Programming and Personal Relations representatives with their duties in all possible manners.
- **Personal Relations (PR) Committee:** The UAB PR representative is responsible for establishing and maintaining contact with possible conference attendees. With the PR representatives from the companion institutions, the UAB PR representative will (1) maintain an online presence communicating conference details (APSA website, Facebook page); (2) send conference notifications to undergraduate, graduate, and medical institutions around the Southeast via e-mail on a consistent basis; (3) create fliers with conference details to distribute physically and electronically; (4) maintain contact with national organizations (APSA, studentdoctor.net, etc.) to advertise conference details; and (5) organize social events the evenings before and after the conference to facilitate student networking.
- **Programming Committee:** The UAB programming representative is responsible for the content of the meeting. With the programming representatives from the companion institutions, the UAB programming representative will (1) establish a conference schedule; (2) plan topics for keynote and breakout sessions which are distinct from those of previous conferences; (3) nominate keynote speakers and breakout session panels/leaders; (4) contact and secure all keynote speakers and breakout session panelists/leaders; and (5) organize MSTP recruitment booths for participating institutions and other groups desiring booths for representation at the conference.

## F. Admission to the MD/PhD Program

Admission to the MD/PhD program requires an application to the University of Alabama School of Medicine (UASOM) through the AMCAS system, including any supplementary material requested by the UASOM and/or the MSTP. Interviews with applicants who are deemed to have suitable credentials

will be conducted by members of the MSTPAC and members of the Admissions Committee in the UASOM. To the extent possible, the interviews will be coordinated so that they can be accomplished during a single visit by the applicant. Acceptance into the program is initiated by the MSTP based on decisions by the MSTPAC and requires approval of the UASOM Admissions Committee.

### **G. Admissions Procedures for Students with Advanced Standing**

***Admissions Procedures for Medical Students with Advanced Standing:*** Applications are also encouraged from current students enrolled in the UASOM, usually after completion of the second year of Medical School. Such an application can be obtained from the MSTP or UASOM Admissions office and does not require the student to complete an AMCAS application. Successful admission depends on the student demonstrating a commitment to a research career and a satisfactory academic record in the UASOM. Guidelines for applicants from the UASOM and applicants from other medical schools are as follows:

Applicants applying to the MSTP for admission with advanced standing must meet the admission requirements for admission to the UASOM with advanced standing as well as those for the MSTP/Graduate School.

- Applicants from school other than the UASOM must demonstrate compelling circumstances as one of the reasons for their request for transfer.
- To initiate an application for Advanced Standing qualified applicants must request an application for Advanced Standing from the MSTP or the Medical School Admissions Office. **Applications are only accepted from October through March.**
- Completed applications will be reviewed by the UASOM Admissions Office and the MSTP Office. Completed applications must include an official transcript and an official letter of evaluation from the Dean/Associate Dean for Student Affairs or other appropriate official of the applicant's current school. This letter must state the eligibility (or expected eligibility) of the individual for promotion to the next academic year at the student's current school. The letter should address the academic and non-academic qualification of the individual for the eventual practice of medicine. Specific comment should be included on any infractions of the school's code of ethical and behavioral conduct.
- The UASOM Admissions Office and MSTP both must agree to offer the applicant interviews in order for the applicant to be given further consideration.
- Interviews will be coordinated with each office and conducted as determined by each office.
- Applicants not invited will be notified by letter signed by the UASOM Admissions Office and MSTP.
- In order for an applicant to be accepted the applicant must be acceptable to both the UASOM Admissions Office and the MSTP.
- Accepted applicants will be notified in writing by the UASOM Admissions Office as well as by the MSTP.
- Applicants not accepted will be notified by letter signed by the UASOM Admissions Office and MSTP.

- **Acceptance is contingent on the applicant having a passing score on the USMLE Step 1.** Applicants must complete this requirement prior receiving a formal letter of acceptance.
- Applications will not be considered from students who will have started their third year of medical school prior to transfer.

***Admissions Procedures for Graduate Students with Advanced Standing:*** Applications are also accepted from students currently enrolled as a graduate student at UAB Graduate School. These students would usually be in their first or second year of graduate school. Applications are **not accepted** from students who have already passed their qualifying exam and advanced to candidacy.

Applicants applying to the MSTP for admission with advanced standing must meet the admission requirements for admission to the School of Medicine as well as those for the MSTP. Requirements for Admission to UASOM can be found on their website:

<http://medicine.uab.edu/education/prospective/46067/requirements/>.

Applicants must apply through the common AMCAS website and are subject to normal UASOM application deadlines. This is done electronically at <http://www.aamc.org/students/amcas/start.htm>. On this site essays, grades, MCAT scores, etc., are selected as well as the schools to which the applicant wishes to apply (MD/PhD). AMCAS then sends the application to the UAB MSTP. The application site usually opens mid-summer and applications are accepted until November 1st for admission the following Fall semester.

Applicants are interviewed with and compete against the complete pool of regular applicants. If accepted, students must take a leave of absence from their graduate programs in order to complete the first 2 years of medical school. At that time, they will then return to their laboratory and graduate program to complete the requirements for the PhD degree.

### III. Curriculum

The curriculum for the MSTP is determined by the program director in consultation with the MSTPAC and is approved by the UASOM Medical Education Committee (MEC), the UAB Graduate Biomedical Sciences Steering and Oversight Committee (SOC) and the Deans of the School of Medicine and the Graduate School. The MSTP requires that students maintain an acceptable level of academic performance in both the medical and graduate school phases of the curriculum. An overview of the MSTP curriculum is shown in Appendix I.

#### A. Medical Courses and Research Rotations

During the first year of the Medical curriculum, MSTP students are enrolled in MSTP 793 as Medical School courses for MSTP students and substitute for portions of GBS 707, 708, and 709 not covered in Fundamentals. All other courses and requirements of the first 2 years of the Medical curriculum are unchanged and are required for MSTP students. During the MS-II year, MSTP students will also enroll in four different modular graduate courses during the spring, for which credit will be given as Medical School Electives. For course descriptions, please see Appendix III-A or the Graduate Biomedical Sciences website ([www.gbs.uab.edu](http://www.gbs.uab.edu)).

Three rotations in different research labs are scheduled, primarily for the purpose of selecting the student's thesis mentor for their PhD dissertation work. The first required rotation is a full-time rotation beginning in June prior to the entry into the first year medical school curriculum. After a break for UASOM orientation and the Patient, Doctor, and Society course, it is an option to continue this rotation on a part-time basis during the early fall of the first year (during the timeframe of the Fundamentals I module) and consists of bench laboratory work or a similar experience in epidemiology or public health. The second two rotations are for 8-10 weeks of full time effort during the next two summers. The student, in selecting faculty mentors for these rotations, must expend considerable effort, because no further rotations are allowed. Students select Program Faculty for a rotation and must register for each rotation with the MSTP office prior to the start of the rotation. Forms can be found online ([www.mstp.uab.edu](http://www.mstp.uab.edu)). Specific registration forms for each rotation are located in Appendix II of this handbook. These forms must be completed and turned into the MSTP office by the indicated deadlines. It is a requirement that students meet with at least 3 faculty members to discuss potential rotation projects prior to making a commitment to a laboratory for their rotation. If students have an interest in working with a faculty member who is not currently an approved MSTP Faculty, they should notify the Program Manager and/or one of the Directors who can initiate the necessary procedures to evaluate and approve the individual as a MSTP Faculty. If at any time a student is having difficulty in identifying appropriate MSTP Faculty to serve as rotation advisors, he/she should immediately contact his/her MSTP Mentor or one of the Directors of the program for advice.

MSTP students must register and complete STEP I of the NBME exam by early summer after completion of their MS-II class work. **For the summer of 2016, MSTP students must have taken STEP I no later than May 31, 2016.** In addition, students who have completed their MS-II year must complete

8 weeks of full time effort in the laboratory during the time between the end of second year Medical School classes and Labor Day.

Students must select a thesis mentor and laboratory for their dissertation research by August 15th of the summer after the MS-II year. If a student is having difficulty finding a suitable thesis mentor it is essential that they contact one of the Directors of the MSTP to discuss this issue. Ideally, students should not wait to discuss this issue with the Director or Associate Director and should seek advice early. If after two rotations a student has yet to identify MSTP Faculty who would be suitable as a thesis mentor, they should discuss this with one of the Directors. This will allow the student to obtain additional advice in order to make an informed decision regarding their third and final rotation. Ideally, students are expected to complete three rotations, each with a different MSTP Faculty. However, students may request permission from the Director to opt out of the third rotation if circumstances warrant this option. **Students may not do two rotations with the same MSTP Faculty member.**

During rotations, the program provides financial support for the student's stipend, fees and tuition.

**All MSTP students who have either finished their second or third rotations, or who are in their thesis laboratories, must participate in "Medical Student Research Day" held each fall, in which all Medical Students who participate in research present a poster of their work.** The MSTP will cover the cost of these posters. The only MSTP students who will not be expected to participate are those in MS-III or MS-IV clinical rotations. Participation in Medical Student Research Day is optional for students in the MS-I year. However, MS-I students wishing to be considered for selection to attend the national MD/PhD Student Conference in Keystone, CO, the summer following their first year, are required to participate.

As noted, it is critical that careful consideration be given to selecting MSTP Faculty for the three different scheduled rotations. In general, the student should discuss potential rotations with multiple faculty members and his/her MSTP mentor well before the registration date of the rotation. After the three rotations, students must formally join a lab to remain in the program. If a student joins a lab and subsequently comes to irreconcilable differences with his/her thesis mentor, a change of labs can be arranged. Once a student chooses a thesis laboratory, both the student and the mentor must make a serious commitment to successful completion of a PhD dissertation project. If after three rotations a suitable mentor cannot be identified, a fourth rotation may be allowed after a written request to and discussion with the Program Director. Requests received after the deadline for the selection of the thesis laboratory or with no evidence of appropriate diligence on the student's part to complete the requirement on time are not in keeping with the high expectations for professionalism of the program.

## **B. Dissertation Research**

Once a Thesis Mentor has been selected, the student officially takes a Leave of Absence (LOA) from the UASOM and transfers to the UAB Graduate School and remains in the PhD program until the PhD dissertation is complete. The expectation of the MSTP is that students will complete their research and dissertation defense within 3 – 4 years. In general, the policies and requirements of the MSTP may exceed the requirements of particular Graduate Program and/or Theme, but will not set a lower

minimum set of requirements than the Graduate Program/Theme. In many cases, the first year graduate courses and Medical School courses will satisfy the requirements for formal courses in the Department/Theme; however, each may also require advanced courses, in addition to a required Journal Club course each term. **MSTP students are not allowed to take any additional coursework that is not germane to their PhD program. All courses outside of the standard curriculum require prior approval from the MSTP Director and PhD Theme/Department.**

The requirements for the PhD degree are established by each of the Graduate Departments/Themes and are the same for all PhD students, with two exceptions. First, each student's MSTP mentor serves as a full member of the Dissertation Committee. Second, each student must have a meeting of his/her dissertation committee **at least once every 6 months**, beginning from the date that the student enters a laboratory and starts full-time dissertation research in the research phase of the program. If some Graduate Programs/Themes require specific milestones, such as completion of a preliminary examination, admission to candidacy, or a formal written proposal for their project prior to a meeting of the Dissertation Committee, then an MSTP specific meeting of the same group of Faculty must be held to maintain the schedule of a meeting every 6 months. **Note that the Theme Director must be notified of your intent to have a qualify exam and defense. She/he must be included on all correspondences between you and your committee concerning the scheduling of said meetings.**

For those of who need to conduct committee meetings with people not on site at UAB – you can now register for GoToMeeting and then use that for voice, sharing your computer screen, etc.

**[Students can use the Citrix GoToMeeting app for virtual meetings](#)**

Students now can request a license for the GoToMeeting application. Log into BlazerNET and click on "GoToMeeting Student License Request" link under the "Links/Forms" tab. With the app, students can communicate, share desktop screens and record interactions.

Students who fail to meet MSTP requirements and/or expectations will be subject to any and all of the following actions:

- A letter describing the deficiency will be put into the student's permanent record
- The thesis mentor will be placed on probation, during which time no additional MSTP students will be permitted to rotate or begin full time studies in his/her lab, and the mentor may also be required to assume additional financial support for the student's stipend, tuition, and fees
- The student will not be eligible to attend research conferences such as APSA or the Keystone MD/PhD Student Conference, which are supported by the program
- The program will freeze the student's enhancement fund account until he/she has met all requirements and expectations
- If requirements continue to be unmet, the student's enhancement fund can be permanently frozen and/or reduced.

Attendance is required at both the MSTP Translational Research Seminar course and the Annual MSTP Retreat. **Failure to obtain an excused absence (refer to Section III.D) for the MSTP Retreat will count as one of the three allowed absences for the MSTP Translational Research Seminar course.**

**Attendance at the yearly SEMSS will count as one attendance for the MSTP Translational Research Seminar course.**

All MSTP students will be required to complete a Clinical Continuity Experience during their dissertation years (MSTP 795). Clinical contacts for each major specialty either have been or are in the process of being determined and required patient interactions will be arranged through the Department of Medicine.

**TB Skin Test Requirement:** All students matriculating back into clinics are now required to have a yearly TB Skin Tests in the past 2 years. Students that do not meet this requirement have to take two TB skin tests (read at least 1 week apart) prior to their return to the clinics. Any student who does the clinical continuity experience will need to maintain his/her yearly TB Skin Tests. The UAB MSTP will facilitate this requirement by organizing 1 week each year when MSTP students can go into Employee Health for their PPD placement and during this week only. This testing period will usually occur sometime during the month of February. The MS1 and MS2 students do not have to use this week, as the SOM requires you to get your TB skin test at the beginning of each academic year.

**Liability Coverage:** The policy of the UAB Professional Liability Trust Fund (PLTF) is as follows: "Coverage applies to any UAB student named in a claim or lawsuit involving a patient as long as the student was acting within the course and scope of the assigned curriculum at the time of the alleged incident." Therefore, it is not necessary to notify the MSTP Office that you will be shadowing your mentor in the clinic.

**CPR/BLS Class: The UAB MSTP requires all students to maintain their CPR/BLS Certification.** Each certification lasts for 2 years; therefore, a typical MSTP would take BLS training during UASOM Orientation, then again immediately prior to entry to their GS-I year (during the transition to clinics week). **Note: This would be required for students who opted to do their 1-month Family Medicine rotation prior to entry into their research lab.** Students would then again be given the option to do BLS training during the transitions to clinic week (typically the last week of April) at the end of their GS-II year and finally at the end of their GS-IV year (with the expectation that they will return to clinics sometime between July and December of the GS-IV year).

As part of the new UASOM curriculum, there is now a formal 1-week course to prepare students for their transition to the clinics. This course, held in late April, is taken by all second year medical students prior to beginning their third year clerkships. If a MSTP student opts to do their Family Medicine clerkship immediately after their MS-II year (and before starting their PhD thesis work), they are required to take this course along with the other MS-II students. In addition, all MSTP students returning to clinics during the 12-month period after this course is offered are required to take this course prior to their return. This session is required by the Medical School and attendance 2 years in a row is acceptable, whereas entering the clerkships without previously attending this session is not acceptable. Students interested in a refresher series of exercises in anticipation of returning to the clinical phase of the program can arrange an individualized program with clinical mentors. This can be arranged through Dr. Craig Hoesley.

**In order to register for rotations in the MS-III curriculum, MSTP students must notify both the MSTP office and the Associate Dean for Students at least 3 months prior to defending the dissertation and complete both the MSTP "Transition to Clinical Phase" form and the Medical Student Services "Return from Leave of Absence" form.**

### **C. Clinical Rotations**

MSTP students are given credit for a significant portion of the normal requirements for the M.D. degree during the MS-III and MS-IV years due to the completion of Graduate School courses and their research leading to the Ph.D. degree. The specific items NOT required for MSTP students are as follows:

- the Special Topics during the MS-III/IV years;
- a third Acting Internship (AI);
- any additional electives (in addition to the one required);
- The Scholarly Activity.

The specific requirements for MSTP students are detailed in Appendix V of this handbook. **It should be noted that MSTP students are required to start their clinical rotations in Internal Medicine, Pediatrics, or MSTP students usually take the Family Medicine Elective (30-210 Senior Preceptorship).** MSTP students will be given preferential selection for the particular clinical rotations of their choice, in consultation with the Associate Dean for Students and the MSTP Director. Once the requirements for graduation and the additional program options described have been completed, the student will have completed the program leading to both the MD and PhD degrees. Stipend support and tuition remission will not be extended beyond completion of the program. (See Appendix V).

The SOM Medical Education Committee has voted to approve a modification of the clerkship grading policy which will take effect for your class. In addition to the grades of Honors, Pass, and Fail, there will also be a High Pass (HP) grade. Students who meet one but not both Honors criteria (e.g. met Clinical but not NBME criteria or vice versa) will receive the HP grade. The method for generating the raw score for each clerkship grade will be unchanged.

All MSTP MS-II students will be offered the option to take the 4-week Family Medicine Clerkship or Elective **prior** to starting their third research rotation. This option must be approved by the MSTP and Medical Student services **no later than January 1 of the MS-II year.**

To plan the schedule for MS-III/IV clinical clerkships several factors must be considered:

- MSTP students must take and pass the USMLE Step 2 written exam and must take the USMLE Clinical Skills Exam within 6 months of expected Graduation. MSTP students are not required to complete all the MS-III Clerkships prior to scheduling USMLE Step 2CK.
- Application deadlines for different medical specialties, the National Residency Match, and the start time for entering most residencies are fixed at one time each calendar year.

- Entry into the clinical phase of the program must start at the beginning of an 8-week rotation block, based on the School of Medicine calendar.
- **Because the Family Medicine rotation is required for medical licensure in several states, including California, MSTP students are required to take a 4 week Family Medicine rotation. This rotation may be a UASOM clerkship or elective or may be an elective at another institution. This requirement applies to all students.**
- Two additional Medical School Electives (4 weeks each) can be taken as a part of the MSTP curriculum, but they are not a formal requirement for graduation.
- MSTP Students are required to take two Acting Internships: Medicine AI **and either** the Surgery AI or Critical Care AI or Ambulatory AI or an Elective AI
- MSTP students may take 4 weeks off to complete interview trips for residency programs and/or to prepare for and take the required USMLE Step 2 and Clinical Skills Exam.
- Additional time off during a particular clerkship/elective may be granted by individual directors. Normally, all medical students are allowed 3 days off for the Step 2 Clinical Skills Exam, but this time cannot be taken during an Acting Internship rotation.
- Other than these specific times or for medical reasons, no other time off is allowed.
- Once the graduation requirements for both the MD and PhD are complete, the student is considered "graduated" from the program, although the diploma is formally conferred only at the regular commencement exercises in December or May. **Stipend support will end when the requirements for graduation or 3 semesters of clinical clerkships are completed, whichever comes first. For entry in Block 4 (January), the student stipend ends the last day of May the following year.**
- An MSTP student may complete the requirements for graduation, but elect to remain enrolled in the Medical School and take additional electives beyond those required for graduation. In this circumstance, students will not be required to pay tuition for the remainder of the academic term in which they completed the requirements for graduation. However, if the student completes the program in the fall, registration for the spring term will require the student to pay his or her own tuition.
- Students may request an exemption from this policy from the MSTP Director. Students should discuss their rationale with the Director and then submit a written request detailing both the additional activities and rationale at least 6 months prior to the time when the requirements for graduation will be completed.
- The practical consequence of this set of requirements and options is that the minimum time to complete the clinical phase of the program is 15 months and the maximum time is 18 months (See Appendix V).

Students should give careful consideration to the timing for the completion of their PhD and how this decision will affect the schedule for residency applications and beginning a residency on July 1st. Finishing the PhD in December offers an optimal schedule for completion of the requirements for graduation in May of the subsequent year to be in synchrony with other Medical graduates. Students who finish their PhD and begin clinical rotations in June/July (MS-III block 6a/6b) will need to plan for an appropriate Post-doctoral fellowship or other experiences to be performed after completion of the program and prior to the beginning of a residency. Students may investigate Residency programs that

accept candidates at times other than July 1st, obtain a Post-doctoral fellowship, or engage in other activities after completion of the program. It is strongly advised that students discuss their options with the MSTP Director and make plans for such activities well in advance of completing the requirements for graduation. Currently, the MSTP **does not** allow returning to clinics in Blocks other than Ia/b or IVa/b, as other return times require the MSTP to pay double tuition for both the UASOM and the UAB Graduate School. The only exception to this rule is if the MSTP student has an individual fellowship that covers tuition for the entire time they are in clinical clerkships.

#### **D. Tuition and Billing**

- At least **50%** of a student's tuition bill will be due **20 days before the start of the term.**
- If at least 50% of the balance has not been paid by this deadline, the student's classes will be **automatically dropped.**
- The remainder of the bill will be due **15 days after the add/drop deadline.**

You will be required to register earlier than usual in order for the MSTP Office to have adequate time to process the payment of the tuition bill and prevent your classes from being dropped. This policy will primarily affect students who are in need of advanced courses usually taken in the first and second year in the lab. The MSTP Office will send an email with an **internal deadline** by which to register based on the days needed to process payment for everyone.

Please note:

- If you do not register by this date you **MUST** call or email the MSTP Office before doing so
- If you register after this date and payment could not be made in time to prevent classes being dropped, you will have to re-register, risking a **late registration fee for which you will be responsible**

#### **Adding/Dropping classes after tuition has been paid**

**Dropping classes after the drop/add deadline may result in not meeting the minimum hour requirement for each semester as well as money lost that has been spent by the program if classes are dropped after the withdrawal deadline for the semester . Dropping classes after the withdrawal deadline MUST be pre-approved by the MSTP Director or may result in loss of Student.**

#### **Financial Assistance**

Funded students who matriculate in the MSTP will receive three financial benefits, as long as they remain in good standing in the Program. The first is a monthly stipend, the amount of which is to be determined and announced annually (currently \$29,000). The stipend amount will be the same for the two components of the Program. The stipend for the student's final year in the Program will be computed on a monthly basis, and will be paid through the month in which all requirements for both degrees are satisfied, or 18 months maximum in the clinical clerkships. The second benefit is the payment of all tuition and student fees (including student health insurance). The third benefit is the

availability of an educational enhancement fund. This fund can be used for items necessary for a student's education at UAB. These items may include books, palm pilots, medical equipment, computers and/or computer programs. Please note that computers purchased from NIH funds (training grant/ fellowship) are actually the property of UAB and you may be required to return the computer when you graduate. Basic supplies such as notebooks, pens, pencils, file folders, highlighters, and so on will be provided by the MSTP Office. Special requests for certain supplies can be submitted to the MSTP Office for review and processing. Use of funds for items not listed or for to scientific meetings or training courses requires a written request to the MSTP Director for pre-approval. Travel will not be approved for the presentation of work not done while at UAB. All purchases are subject to approval by the MSTP Office Staff and/or the MSTP Director. The funds available are:

- MS-I & II - \$2500
- GS-I through IV - \$750
- MS-III & IV - \$750

**This totals \$4000 for the entire MSTP training period; however, funds do not roll over between phases of the program.** In order to expedite receipt of these funds, all MSTP students are required to have direct deposit from their student account to their bank account. Please note that if a student leaves the program in the middle of one of these time spans, the amount available for use will be prorated. If a student drops out and has spent more than the pro-rated amount, they must pay the overage amount back to the UAB MSTP. Students must submit itemized store receipts and credit card receipts to the MSTP office in order to get reimbursed. Students will not be reimbursed for amounts that total less than \$25.00. See Appendix IX for more detailed information. The total amount reimbursed per student is tracked by the MSTP Office. These educational enhancement funds can be held if a MSTP student does not meet MSTP expectations (i.e. replying to emails in a timely manner, return of required forms by the deadline, etc.).

If a student submits an individual extramural fellowship application, the UAB Graduate School will pay a bonus of \$250 directly to the student's account. For information on how to apply for this bonus and how to make sure it is appropriately credited, see Appendix X. If the fellowship application is funded, the MSTP will supplement the student's stipend by \$200 per month above the normal level. To be eligible for this bonus, the individual grant must cover at least 50% of the student's annual stipend. This supplement is not awarded for students who are appointed to another institutional training grant.

For those students who enter graduate departments not formally a part of the School of Medicine (i.e. School of Public Health, School of Engineering, etc.), the payment of tuition will be made by the Dean of the School in which the student is enrolled. In each case, the transactions will be processed by the MSTP Office using funding accounts from individual investigators, the UAB Graduate School, or the SOM as appropriate.

**Other items such as parking citations, if added to the student's account, must be paid directly by the student.** Items billed as "Due from Student" will be subject to the deadlines for payment imposed

upon students in the regular MD or PhD programs. The MSTP does not pay any late fees charged due to missed payments or late registration.

***Travel Funds from the UAB Graduate Student Association:*** Currently, each graduate student in good academic standing who will be enrolled at the time of travel **and** at the time of reimbursement is eligible for one Travel Award of up to \$400.00 each academic year if the student is presenting at a conference or is attending an off-site, non-UAB academic training session for which the student will receive UAB graduate course credit. See: <http://studentorgs.uab.edu/gsa/travelgrants/index.htm>

***Fellowship from the Medical Alumni Association:*** The Caduceus Club of The University of Alabama School of Medicine established the Student Travel Fellowship to provide unique study opportunities for selected medical student. Qualified medical students are encouraged to apply for these fellowships which provide transportation costs for pursuing the approved training program. The Caduceus Club, recognizing that training programs at other institutions in this country and abroad can contribute significantly to the development of health services in Alabama, wishes to aid and encourage University of Alabama School of Medicine students to seek such experiences. These experiences are expected to broaden the student's perspectives as physicians:

<http://www.alabamamedicalalumni.org/index.php?submenu=travel&src=gendocs&link=Travel%20Fellowship%20Objective&category=About&PHPSESSID=0edc369986923da918e514966b649040>

#### **E. Additional Required Program Activities**

There are several other programs and events designed to enrich the MSTP training experience that are requirements of the program in addition to the requirements of the Graduate School and the Medical School.

- Students must complete the required laboratory rotations as described in the 'Medical Courses and Research Rotations' section above.
- All students are required to take a Biostatistics course and a course in the responsible conduct of research. These courses will usually be taken the fall of the GS1 year or shortly after the GS-I year.
- All MS-I students are required to take the Special Topics Course – Survival Skills for Physician Scientists. This course is taught during the summer between the MS-I and MS-II years.

A seminar course focused on Translational Research (MSTP 794) is required throughout the tenure in the Program. Students must register for this course in their PhD years, depending on the School they are registered in for that semester (research phase in GBS, other years in the SOM). This seminar-based course is held in the evening on the second Wednesday of each month (except summer and December) in the Shelby Interdisciplinary Biomedical Research Building. These meetings will include various announcements concerning MSTP activities, seminars on Translational Research delivered by invited Faculty members, and presentations of research by students in the program that are nearing completion of their PhD. **Attendance at this course is required for a least 70% of the classes scheduled each year. Should a student have a conflict due to clinical rotations or another scheduled**

**course, they should contact the MSTP Director. In exceptional circumstances beyond the control of the student, an excused absence for the monthly Translational Research Seminar may be granted by the MSTP Director. Prior notification of an absence does not guarantee that absence will be excused.**

Students not meeting this attendance requirement will receive a warning after the seventh meeting of the year. If a student ends the year and does not meet this attendance requirement, then they must submit a 2 page description of the topic(s) and the research of the presenting faculty member that they missed. A report will be required for each meeting missed until a total of 70% (either attendance and/or reports) is met. This report is to be turned in to the MSTP Director by the last day of November for students graduating in December and the last day of May for students graduating in June. All other students must submit their reports by the last day of May.

The Annual MSTP Retreat is held in the summer of each year during which time selected students in the research phase of the program will give presentations of their research. **Attendance at the MSTP Retreat is a requirement of the program.** Students in the clinical phase of the program should request time off to attend the retreat, which can be facilitated by the Program Director, if needed. In exceptional circumstances beyond the control of the student, an excused absence from the MSTP Retreat may be granted by the Program Director. However, permission must be obtained **prior** to the retreat. **Failure to obtain an excused absence for the MSTP Retreat will count as one of the three allowed absences for the MSTP Translational Research Seminar course. Prior notification of an absence does not guarantee that absence will be excused.**

MSTP students who have completed their second- or third-research rotation, or who are engaged in PhD research are required to prepare and submit an abstract for Medical Student Research Day (MSRD). Students are expected to prepare a poster and/or talk (if selected) for MSRD and to present their poster/talk at the event. **The MSRD poster and oral sessions will be held each year in October (abstract submission in Learning Portfolio will close the first week of September).** The cost for preparation of a poster will be covered by the MSTP only if this poster is printed by the Biomedical Poster Printing Service located in Room 121 of the Shelby Building. It is the responsibility of the student to get their poster printed in a timely manner. This obligation should be fulfilled each year as long as the student is actively engaged in rotations/PhD research.

Each year several upper-level students and at least one MS-I/ II student will be selected to attend the Annual MD/PhD Student Conference. MS-Is wishing to be considered for selection to attend the national MD/PhD Student Conference in Keystone, CO, the summer following their first year, are required to participate in MSRD. All travel and hotel expenses are covered by the UAB MSTP. In addition, if the student is presenting a poster, the cost of printing the poster will be covered, as long as the poster is printed by the Biomedical Poster Printing Service.

## **F. Griffin Society**

The Griffin Society is named for Frank Monroe Griffin, Jr., MD, who founded the UAB MD/PhD training program in 1985 and directed the MSTP for 13 years. Dr. Griffin attended the Medical University of South Carolina and received his MD in 1966. He extended his training as an intern and resident in the

Department of Medicine, and a Fellow in the Division of Infectious Diseases at the University of Alabama. He spent 2 years at the US Naval Hospital in Illinois and 2 years as a Research Fellow at Rockefeller University prior to returning to UAB as a faculty member.

The Griffin Society at UAB serves to advance understanding of biomedical research by clinical residents, fellows and MSTP students. The society's activities involve residents and fellows in clinical training programs at UAB-affiliated hospitals who have MD/PhDs, MSTP students in all phases of the program, and UAB faculty with MD/PhD degrees. One focus of the Griffin Society is a series of informal dinner meetings/social hours featuring one of two formats, either a pair of brief research presentations by a clinical trainee and an MSTP student, or a presentation by a prominent outside speaker who is a leader in his or her research field with an interest in education of future biomedical researchers. The goal of the Griffin Society is to promote interactions between MSTP students, residents and fellows with interests in biomedical research, as well as MD/PhD faculty who have experienced the rewards and challenges of the career opportunities offered to those with a combined degree, allowing these groups to enrich each other with their different experiences and viewpoints.

The society is the administrative center for our Clinical Continuity experiences, which help MSTP students to maintain their clinical skills and allows them to explore multiple clinical specialties in order to help solidify their future residency/fellowship choices. In addition, the Griffin Society is the sponsor of the Translational Medicine Journal Club. The purpose of this journal club is to examine articles as a traditional journal club, but also to question the relevance of the articles to the treatment of human disease. This will also help foster interactions between the ABIM Research Pathway and the MSTP.

### **G. Academic Standards**

MSTP students will be evaluated in the same manner as other students participating in the same courses, clerkships, or other experiences. Students who fail to maintain an acceptable level of performance in either Medical or Graduate courses will be subject to review by the MSTPAC. The MSTPAC may recommend academic disciplinary measures, which can include (a) dismissal from the Program (see further provisions regarding dismissal below); (b) continuation on academic probation, if extenuating circumstances so warrant; (c) performance of additional or remedial work, if extenuating and other circumstances so warrant. Students may also be put on academic probation or dismissed from either the UASOM or their specific graduate programs, if an acceptable level of performance and conduct is not maintained.

It is a requirement of the Graduate School that in order for a student to maintain good academic standing, a GPA of at least 3.0 (B average) and overall satisfactory performance of pass/not pass courses are required. Every MSTP student must take at least one advanced class or journal club for a letter grade in order to calculate a GPA from his/her graduate school transcript. The policy of the MSTP is that "Students that receive a grade of 'C' in a required graduate school course must retake that course as soon as reasonably possible."

Adverse actions taken against MSTP students by the MSTPAC will be subject to appeal to the Deans of the two Schools, whose decision will be final. All students must take USMLE Step 1 before beginning

their first clerkship or beginning a leave of absence for Ph.D. training if in the Medical Scientist Training Program, whichever comes first. MSTP students are required to take USMLE Step 1 prior to the start of Block 6b. If a MSTP student does not meet this deadline then they must either be registered for the Basic Science Elective in Block 6b (06-402D; Course Director James Banos) or go on a Leave of Absence (without stipend). These alternatives must be approved by the MSTP Director, the Associate Dean for Students (Dr. Laura Kezar), and the Basic Science Elective Course Director. Students must also take the USMLE Step 2 written exam and the Clinical Skills Exam to complete their MD degree. **Note that some residency programs require the score be reported prior to beginning their residencies and some are now requiring these scores prior to doing their residency applicant ranking. Please check with individual residency programs regarding their specific requirements.** Policies and practices pertaining to regular MD program students will apply in this regard.

Dismissal for academic or other reasons from either the Graduate or Medical component of the Program will constitute dismissal from the entire Program. Voluntary resignation from either component of the Program will constitute resignation from the entire Program. There are several consequences students who are dismissed from the Program or who voluntarily resign from the Program:

- If the student wishes to pursue either the MD or the PhD degree only, then the student must re-apply to the appropriate admissions office. There is no guarantee of acceptance.
- All financial benefits of the MD/PhD Program end at the time of dismissal or voluntary resignation. The student becomes responsible for all tuition and fees if he/she is accepted into the graduate or medical programs at UAB. If the student was not an Alabama resident at the original time of admission, then the tuition charged will be at the non-resident rate.
- All programmatic benefits end. After dismissal or voluntary resignation, the student will no longer receive priority scheduling of UASOM clinical clerkships, the student is now required to complete all clinical requirements of the UASOM (including the additional Acting Internships and electives that are not a requirement of the MSTP), and the student is no longer guaranteed an assignment to the Birmingham campus.

If an MSTP student does not meet the requirements for the awarding of a PhD degree, then a master's degree may be awarded if the student has successfully completed all of the course work requirements of his/her program (first year coursework and required advanced coursework) and the qualifying examination administered by his/her program. This degree would be a master's degree in Basic Medical Science (MSBMS). The MSBMS is only awarded under unusual circumstances and only to students who have completed the requirements indicated earlier. These are minimal requirements for awarding the MSBMS; programs may elect to mandate additional requirements such as preparing and successfully defending a Master's thesis and/or having published a first author paper in a peer reviewed journal. The recommendation to award the MSBMS degree must come from the student's mentor, his/her thesis committee, and the Director of his/her program, graduate and MSTP, accordingly.

All units of academic activity in the SOM at UAB will be graded by a simple pass-fail grading system. This policy applies to all courses, clerkships, electives, acting internships and all other units of academic activity as well as all campuses of the School of Medicine. This simple pass-fail grading system will assign a grade as follows:

- All graded courses, clerkships and electives will continue to assign a raw score for the performance of each student enrolled. The raw score shall range from 0 to 100 with a score of 70 and higher established as a passing score.
- The raw scores earned will be recorded and maintained by the SOM for internal use and individual student use only. All academic grades earned prior to the implementation of this policy will remain as earned. Students who have had their academic progress interrupted and will return after July 1, 2006 will be graded according to this new grading policy.
- Students in the MSTP will be assigned to the medical school class with which they entered for the first 2 years. For purposes of calculating medical school GPA for students who entered prior to the implementation of this policy, the graduate courses and other first-year graduate courses will be given a weight equal to the courses they replace. Upon completion of the research and dissertation portion of the Program, and upon return to the clinical phase of the program, the MSTP student will be assigned to the medical school class then in the third year for purposes of comparative calculations (eligibility for AOA, honors, awards, etc.).

The MSTP Directors do not automatically write letters of recommendation for MSTP students who are applying to residency programs. However, MSTP students are welcome to ask the Directors and/or MSTPAC members to write letters if they wish. Such requests will gladly be accommodated.

MSTP students may request UASOM transcripts for the purpose of applying for fellowships, etc. Contact the MSTP Office for access or access your transcripts at [www.uab.edu/medicine](http://www.uab.edu/medicine).

## H. Health Insurance

Health Insurance coverage is continuous as long as you are active in the program, beginning in the middle of August. Graduate student trainees' health insurance is paid by the MSTP through the student's UAB account. The MSTP does not provide health insurance for any additional family members. If the student is eligible, they can apply for additional financial aid to cover this expense (see Section III.H).

## I. Parking Lot/Deck Assignments

Parking for MSTP students is determined by the SOM during your MS1, MS2, MS3, and MS4 years. **When in the MS-I, MS-II, and graduate years, you are assigned to Lot 15, which is general student parking.** However, you may pay an additional fee to park in a closer lot or deck. Please note Lot 5A is **not** included as an option. The graduate student parking assignment, as found on the Parking and Transportation Services Website: <http://www.uab.edu/parking/parking/students> states:

"Graduate students can access the commuter student lots if they do not live on campus. In addition, graduate students can access the 9th Avenue deck (under construction), 10th Avenue deck, and 5th Avenue deck for a nominal additional fee. All of these facilities' permits are also honored in any commuter lot. Parking is assigned on a first-come, first-serve basis. If demand for deck parking exceeds availability, then a waiting list will be taken for the current academic year only.

After-hours parking is available for certain areas. After-hours is defined as 5 p.m. - 6 a.m. weekdays, and all day weekends. This access is free for any graduate student with a deck permit. For those in commuter or resident student facilities, a \$20 charge applies. Current after-hours locations are:

- University Boulevard Deck
- 5th Avenue Deck
- Lot 16A (Underneath Education Building)”

## **J. Recreation Center**

The Recreation Center is accessible to all enrolled students and is charged to the student’s account.

Medical Students are charged twice a year for the Recreation Center (Fall and Spring) at the same time Medical School tuition is charged. Fall charges are for access from July 1st through December 31st and spring charges are for access from January 1st through June 30th. **This also means that students transitioning from the medical to graduate years are covered during the summer prior to entering their Thesis Lab as it was paid at the same time as spring medical tuition.**

Graduate students are charged three times a year (Fall, Spring and Summer). **Students transitioning to clinic will not have any gap in their access. Regardless of the date of final defense, the Recreation Center fee charged on the student account during the last semester in graduate school will be valid until the end of that semester.**

## **K. Extracurricular Activities/Jobs**

Students in the UAB MSTP have made a full-time commitment to the program. Under normal circumstances, therefore, they are not permitted to have outside jobs.

Certain exceptions may be granted under the following circumstances:

- Tutoring
- ICM trainer for standardized patients
- Teaching assistant
- Teaching MCAT or GRE prep courses

**Students should notify the MSTP Director if they are involved or plan to become involved in any military/government activity that offers a stipend.**

**In all cases, students must fill out the UAB MSTP Extracurricular Activities/Jobs Form in Appendix II to get permission from the Director prior to engaging in any outside job activity.** Permission must be requested in writing for any activities not listed.

## L. Student Program Responsibilities

Students in the UAB MSTP are required to:

- Maintain an up-to-date student profile on the MSTP website
- Submit an updated C.V. and activities spreadsheet annually by July 15th
- Respond in a timely manner (**i.e. within 48 hours**) to all e-mail sent by the UAB MSTP staff and/or directors to your UAB account
- **Certify Effort Reports (or else students will not get paid)**
- Routinely monitor UAB and UASOM email accounts to ensure that your mailbox storage limit has not been exceeded
- Attend monthly MSTP Translational Medicine Research Seminars and the Annual MSTP Retreat or obtain excused absence prior to seminar/retreat date
- During graduate research years, schedule thesis update meetings every 6 months
- Submit a PDF copy of your PhD dissertation to the UAB MSTP Office once approved by the Graduate School for binding purposes
- Submit an electronic copy of the dissertation abstract to the UAB MSTP office within 2 weeks of a successful defense
- Maintain an acceptable level of academic performance in all Medical and Graduate courses
- Register for and complete the MSTP laboratory rotations within the required period;
- Participate in the annual Medical Student Research Day during the rotation and PhD dissertation phase of the program
- Maintain an appropriate level of professional behavior in all interactions with faculty, students, staff, and patients
- Adhere to all UAB and UASOM Policies on Consumption of Alcoholic Beverages, Chemical Substance Abuse and having a Drug-Free Campus. These policies are in effect at all UAB MSTP sponsored events, including, but not limited to, recruitment events and the annual retreat (See Appendices XV-XVII)

## M. Recruitment Meal Guidelines

We greatly encourage and need student participation in the recruitment process. We want the experience to be enjoyable for student and applicant alike. However, students participating in recruitment need to be familiar with the following guidelines; failure to adhere to these guidelines will likely result in only partial reimbursement of meal expenses.

For all restaurant meals – reimbursements will only cover the expense of the applicants and their student hosts. A list of attendees is always required for reimbursement.

### **Thursday dinners**

### When dining out:

- If dining out after applicants arrive in Birmingham it is preferred that when multiple applicants arrive near the same time as many hosts and applicants go to dinner together as possible.
- Appetizers are allowed with the following guidelines: One appetizer for every four-person party. If your party is less than four you are allowed one appetizer. If your party is more than four you are allowed one additional appetizer.

When hosting a dinner at your home: The budget for dinners at a student home is \$10 to \$15 per/person with a limit of \$150 for food and non-alcoholic beverages. The number of attendees should be between 10 and 15. Alcohol is not included in this budget and will not be reimbursed for off-site meals.

### **N. Expectations for Professionalism**

In addition to the academic requirements discussed earlier, students are expected to maintain high standards of professionalism throughout their tenure in the MSTP and take an active role in program activities (e.g., recruiting, student committees). Among the criteria of professionalism is completing all of the requirements of the program detailed in this handbook (See Appendix VIII and information listed). If students demonstrate repeated episodes of unprofessional behavior, appropriate actions will be taken by the MSTP Director in consultation with the MSTP Advisory Committee. These may include (a) a letter to the student's permanent academic file indicating a lack of professionalism, (b) temporary suspension of the student's stipend, or (c) dismissal from the program. Similar to a letter from the Associate Dean for Academic Affairs indicating a lack of professionalism on the part of a medical student, such a letter from the MSTP Director will be available to Residency programs and potential future employers.

## Appendix I: UAB MSTP MS-I/MS-II Curriculum and Special Topics

For a detailed look at the 2015-2016 UASOM Curriculum Overview, please see:

[http://www.uab.edu/medicine/home/images/current\\_students/2015-2016\\_academic\\_calendar.pdf](http://www.uab.edu/medicine/home/images/current_students/2015-2016_academic_calendar.pdf)

### Year 1

#### Year 1 (2015-2016)

Week	Date	UASOM Course	GBS Course	ICM	Laboratory Rotation
July 2015	27	PDS/Orientation			Continuation of
August	3	PDS/Orientation			Summer
	10	PDS/Orientation			Research Rotation
	17	Fundamentals I	MSTP 793		on a part-time basis
September	24				(optional)
	31				
	7				
	14				
	21				
October	28				
	5				
	12				
November	19	Fall Break			
	26	Fundamentals II			MSRD
	2				
	9				
	16				
December	23				
	30				
	7				
January 2016	14				
	21	Winter Break			
	28	Winter Break			
	4	Cardiovascular			
	11				
February	18				
	25				
	1				
	8	Pulmonary			
	15				
March	22				
	29				
	7				
	14	Spring Break			
	21	Gastrointestinal			
April	28				
	4				
	11				
	18				
May	25				
	2	Renal			
	9				
	16				
	23				
June	30				
	6	Summer Break			
	13	Summer Break			Summer Rotation
	20	Special Topics			Special Topics
July	27				
	4				
	11				
	18				

**Year 2**

**Year 2 (2016-2017)**

Week	Date	UASOM Course	GBS Course	ICM	Laboratory Rotation
July 2016	25	Special Topics			Summer Rotation I
August	1				
	8				
	15	MS/Skin			
	22				
	29				
September	5				
	12				
	19				
	26				
October	3	Neuroscience			
	10				
	17				
	24	Fall Break			
	31				
November	7				
	14				
	21				
	28				
December	5				
	12				
	19	Winter Break			
	26	Winter Break			
January 2017	2	Heme/Onc	Spring Module 2		
	9				
	16				
	23				
	30				
February	6	Endocrine	Spring Module 3		
	13				
	20				
	27				
March	6	Reproductive	Spring Module 4		
	13				
	20				
	27	Integ/Test Prep/USMLE Step I			
April	3		Spring Module 5		
	10				
	17				
	24		Spring Break		
May	1		Spring break?		
	8	Block 6a	Spring Module 6		
	15		(Optional)		
	22				
	29				
June	5		Summer Break		Summer II (if no FM)
	12				
	19				
	26				
July	3				
	10				
	17				

**Years 3-8:**

<b>PhD Research (usually 3.5 years)</b>
Dissertation Research
Selected Advanced Graduate Courses
Journal Clubs and Seminars
MSTP Translational Research Seminar

<b>Clinical Rotations</b>	
<b>MS-III</b>	<b>MS-IV</b>
Family Medicine	Medicine AI
Internal Medicine	Additional AI
Pediatrics	Electives
Surgery	
Psychiatry	
Neurology	
OB/GYN	

## Appendix II: Forms for MSTP activities and transitions between phases of the Program

MSTP students must register for several special activities because these activities are not otherwise part of the Medical School or Graduate School requirements.

For each rotation selection form, the names of at least three different Program Faculty members with whom the student has thoroughly discussed the possibility of a rotation must be listed. These registration forms are not complete until all of the required approvals are obtained. Students must anticipate the often significant time it may take to review these decisions with different Faculty members and ensure that this process is begun with sufficient time to complete the required registration by the stated deadline. Each of these steps is a core requirement of the program and failure to complete this registration by the specified deadline may result in disciplinary consequences as described in Section III of the handbook. Forms available in this section are listed below:

- Summer Rotation Selection Form for:
  - Pre-Summer rotation during MS-I year
  - Summer rotation after MS-I year
  - Summer rotation after MS-II year
- Thesis Lab Selection Form
- Thesis Lab Research Commitment Statement
- Theme/PhD Program Selection Form
- Transition from Research Phase to Clinical Phase UAB MD/PhD Program  
(Please note this form is due **3 months** prior to return)
- Clinical Planning Worksheet
- Student Evaluation of Lab Rotations
- Evaluation Form for Lab Rotation Mentors
- Student Evaluation of Thesis Lab
- Evaluation Form for Thesis Research Mentor
- Evaluation Form for Thesis Research Committee Meetings
- Extracurricular Activities/Jobs Form
- Parental Leave of Absence Form

Additional information concerning the return to the clinical phase is detailed in Appendix IV of this handbook. Copies of each of these forms are provided in the printed version of this handbook. Because specific due dates change with every calendar year, the current forms to be used are available under the Current Students section/Forms tab of the MSTP Website.

## Appendix III-B: Requirements for the PhD degree awarded by additional participating Graduate Programs

### ***Biomedical Engineering***

<http://www.uab.edu/engineering/home/biomedical-engineering>

**Program Chair:** Timothy Wick, PhD, SHEL 807, [tmwick@uab.edu](mailto:tmwick@uab.edu), 934-4820

**Hours:** 32 hours (9-fall, 9-spring, 9-summer)

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### ***Epidemiology, School of Public Health***

[www.soph.uab.edu/epi](http://www.soph.uab.edu/epi)

**Program Director:** Donna Arnett, PhD

**Hours:** 9 Fall, 9 Spring, 6 Summer

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### ***Vision Sciences***

<http://www.uab.edu/vsgp/>

**Program Director:** Kent Keyser, PhD, WORB 626, [ktkeyser@uab.edu](mailto:ktkeyser@uab.edu), 975-7225

**Course requirements:** Six core class modules in Vision Science the first year and 5 courses/electives in their second year. The Dissertation committee requires at least 5 members including the research mentor. Two faculty members should have primary appointments within the Department of Vision Sciences and two should have their primary appointment outside the department. The Graduate Program Director and Dean of the Graduate School must approve the committee. (Please note: one member must be the MSTP mentor). Admission to candidacy- students who achieve an "A" grade in at least 4 of the 6 core class modules are exempt from any oral or written qualifying exams. Students must successfully defend their research proposal in an oral and written presentation. Admission to candidacy is granted once the written and oral presentations are passed successfully. Students may propose after the summer of their first year.

**Additional information:** Ramona Hart at 934-6743, [rhart@uab.edu](mailto:rhart@uab.edu) or

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### ***Health Care Organization and Policy***

<http://www.soph.uab.edu/hcop>

**Program Director:** Nir Menachemi, PhD, MPH, Ryals 320E, [nmenachemi@uab.edu](mailto:nmenachemi@uab.edu), 934-7192

**Program Information:** The DrPH degree is the highest professional degree in public health. The DrPH Program in HCOP develops leaders and research faculty who have proficiency in data analysis, management, critical thinking, teaching, and translating research into policy and practice. Students will be exposed to complex practical problems facing public health practitioners and policy-makers. This program, housed within the Department of Health Care Organization and Policy has three tracks: (1) Public Health Management, (2) Maternal and Child Health Policy and (3) Outcomes Research.

## **Appendix IV: Procedures for Transitioning from the Research to Clinical Phase of the Program**

Students must have completely finished all PhD degree requirements prior to beginning any clinical clerkship. In general, this means the PhD dissertation must be completed and successfully defended; however, the specific requirements for the award of the PhD degree rest with the Dissertation committee and the particular Graduate Program.

Given the desire for students to begin the clinical phase in a timely fashion after completing the Dissertation and the logistical issues involved in scheduling specific clerkships with the Medical School Registrar, specific plans concerning the start date in clinical rotations need to be made prior to the actual completion of the PhD. Because this transition involves key changes in the financial responsibility for the student stipend and tuition payments, Medical or Graduate School, it is imperative that the MSTP office has documentation of the effective date of this transition.

### **Six weeks prior to the scheduled dissertation defense**

As the student's dissertation research nears completion, the student should present their work to the Dissertation committee and a date for the completion of the dissertation and the final dissertation defense should be established. The Dissertation committee should communicate these plans to the Graduate Program Director, who must send written confirmation of the anticipated completion date to the MSTP office. The student and the research mentor are responsible for seeing that this communication takes place in a timely fashion.

It is strongly recommended that the student schedule a meeting with their MSTP Mentor and the Director of the MSTP to review the student's plans for completing the PhD, discuss alternative residency programs in relation to the student's future research focus, and discuss the optimal order of clinical clerkships to complete the MD degree. **These meetings should take place at least 3 months prior to the anticipated PhD completion date.**

At this meeting with the MSTP Director, the "Return from Leave of Absence" form is completed. Students may not schedule the specific order and timing of the clinical rotations, nor schedule a meeting with the Associate Dean for this purpose until this documentation is complete.

Finally, the MSTP office requires written confirmation from the Graduate Program Director of the anticipated dissertation defense date and a statement that indicates that all PhD requirements have been met by the student. The MSTP office will communicate these plans in written form to the Associate Dean for Students and the Medical School Registrar's office. The scheduling of specific rotations must be done at least 8 weeks prior to the anticipated start date. If, for whatever reason, the dissertation is not completed on the anticipated schedule and the final dissertation defense is rescheduled or delayed, it is imperative that the Graduate Program immediately notify the MSTP office of this change in plans.

Please note that if you do not defend your thesis by the “Last Day For Final Defense” in the table below, then you have to register for dissertation research the following semester (even though you have returned to clinic). This then means that the MSTP has to pay both graduate school and medical school tuition for this semester. Due to this increased cost, students will need to obtain permission from the MSTP Director if they will not be able to defend by the “Last Day for Final Defense” listed.

## Application for Degree

Each graduate program has individual application deadlines. Please visit the specific program website and application checklist for deadline dates at <http://www.uab.edu/graduate/current-students/admissions-checklist>.

### Plan I

#### Graduate School Graduation Deadline Dates for Students Completing a Thesis/Dissertation

<http://www.uab.edu/graduate/deadline-dates#graduation>

**\*\*The following dates are subject to change. Check this schedule each semester for any changes to the posted dates. Also check with your department. Some programs have earlier deadline dates for the application for degree.**

SEMESTER	DIPLOMA DATE	DEADLINE FOR APPLICATION FOR DEGREE	LAST DAY FOR FINAL DEFENSE	DEADLINE FOR DOCUMENT SUBMISSION*
Spring 2015	April 25, 2015	January 16, 2015**	March 20, 2015	No later than 10 business days following public defense
Summer 2015	August 8, 2015	May 15, 2015**	July 10, 2015	No later than 10 business days following public defense
Fall 2015	December 12, 2015	September 4, 2015**	October 30, 2015	No later than 10 business days following public defense

**Request for Approval Forms must be submitted online no later than 2 weeks before your public defense date.**

**It is your responsibility to submit your completed thesis or dissertation for review no later than 2 weeks (10 business days) after your public defense.** You will be notified when your manuscript has been reviewed (usually within 5 – 7 days). Under certain circumstances, submission extensions may be granted for students who defend well before the final semester deadline for final defense. Extensions will not be granted past the submission date for the final defense deadline.

**It is the student's responsibility to see that the above deadlines are met.** Students cannot be cleared for graduation until all paperwork has been processed, all grades have been finalized, and all applicable fees have been paid.

**Note:**

Failure to meet these deadlines will require the filing of a "NEW" Application for Degree Form (reorder) and registration for course hours for the following semester. The new application for degree form (approved at the departmental level and submitted to the Graduate School) must be submitted by the deadline posted above.

**The above dates are subject to change. Check with the Graduate School, G03 Lister Hill Library, or call 934-8227 if you have any questions concerning these dates.**

When a student sets up his/her defense dates, he/she should go to the graduate school web site and fill out a request for approval forms. Thereafter, the Graduate School will contact you to get everything processed correctly.

## **Two weeks prior to defending**

A copy of the dissertation must be sent to each committee member and the MSTP Program Manager for review. After the defense and submission of the dissertation to the Graduate School, the MSTP requires each student to send to the MSTP office an electronic copy of a CV and the Graduate School approved dissertation for processing.

The MSTP will /pay the following expenses:

- Graduation fee (1st time only)
- Diploma
- Dissertation binding: 3 copies will be printed and sent off for binding by the MSTP Office (one for you, one for your mentor, one for the MSTP office)
- Copyright

**There is no cap and gown reimbursement for Graduate School.**

## **Returning to Clinics**

Think about how you want to arrange your 15-18 months of clinical rotations. Please use the included worksheet (Appendix II) to help in your planning process. Please remember that you are required to begin with a rotation in Internal Medicine, Pediatrics, or Family Medicine.

**At least 3 months prior to the anticipated transition date:**

**First:** Fill out the Transition from Research Phase to Clinical Phase form. Turn the completed form into the MSTP office and the Associate Dean for Student's office.

**Second:** Meet with the MSTP Director to discuss your transition plans.

**Third:** Meet with the Associate Dean for Students, Dr. Laura Kezar ([kezar@uab.edu](mailto:kezar@uab.edu), 934-0566) to discuss the transition plans.

**Fourth:** After these meetings, schedule a meeting with the Academic Scheduler (Marla Ferguson, [mmfergus@uab.edu](mailto:mmfergus@uab.edu), 934-7976 or [scheduler@uab.edu](mailto:scheduler@uab.edu)) to do the actual scheduling of your clinical rotations.

**At least 6 weeks prior to transition:** Have your graduate program director create a letter to the MSTP, saying that 1) you have met all the requirements of your PhD program and 2) you are anticipating

defending by 'x' date (specify a specific date when your dissertation will be complete (private defense date). **Submit this letter to the MSTP office as soon as possible.**

**You are required to do an orientation to the clerkships before you begin the clerkships.** Since the orientation program is only run once a year (usually the last week of April), you should plan on attending if you think you will go back to clinics anytime in the 12 months after April. In general, this is just all day on Monday, with just a few hours on other days of that week.

After you attend this program, you will still need to take care of several items before you return to your clinical education. These are best completed closer to the time you actually return. You can schedule them with the appropriate offices a month or so before your clinical begin date. For questions about these items, please contact Dr. James Banos, 975-9845.

Please see Denise Coston for a checklist for returning to clinics. Additional useful contacts are provided below:

Heath Compliance	<a href="http://www.uab.edu/studenthealth/medical-clearance/web-based-medical-clearance">http://www.uab.edu/studenthealth/medical-clearance/web-based-medical-clearance</a>
Card Key ID, Students need additional access to all perimeter doors of the hospital complex	Physical Security (get MS3 building access). If you have your SOM ID, just go to Physical Security on 20th Street. If not, have the registrar fill out a sheet to take with you.
Mailbox and Locker assignments	Learning Resource Center, VH 225, Tammi Taylor ( <a href="mailto:tammi@uab.edu">tammi@uab.edu</a> )(934-5296)
Extended hours access to Lister Hill Library	Tracy Powell ( <a href="mailto:trapow@uab.edu">trapow@uab.edu</a> )
Parking, Approved access to lot 5A	Joy Smith ( <a href="mailto:smithjoy@uab.edu">smithjoy@uab.edu</a> ) Michele Carter ( <a href="mailto:michele@uab.edu">michele@uab.edu</a> )
Student Accounting, Billing	Gwen Stewart ( <a href="mailto:gstewart@uab.edu">gstewart@uab.edu</a> )
Student Health, Records and coverage	Candace Ragsdale ( <a href="mailto:craggs@uab.edu">craggs@uab.edu</a> )
IMPACT, training and access	UAB PIN Office; Mitzi Jenkins-Lapsley ( <a href="mailto:mitzid@uab.edu">mitzid@uab.edu</a> )
VA Fingerprinting and Picture ID	Linda Walfield - 933-8101, Ext 5958
VA HIPAA training	On-line <a href="mailto:susan.laing@va.gov">susan.laing@va.gov</a>
OSHA training and fitting	William E. Davis, Jr. ( <a href="mailto:wdavis@uab.edu">wdavis@uab.edu</a> )
BLS certification, Returning students and off-cycle students should contact and set up training. It is the students' responsibility to send the UASOM an updated BLS card.	Kornelius Gardner ( <a href="mailto:mrk@uab.edu">mrk@uab.edu</a> )
Pager distribution	First try Jason Noah in VH109. He also has the yellow medical school books (written by students); alternatively go to UAB Paging, Kimberly Lee ( <a href="mailto:kimlee@uab.edu">kimlee@uab.edu</a> )
16th floor Lounge access	Graduate Medical Education, Jacasta Wright

	<a href="mailto:deltagir@uab.edu">(deltagir@uab.edu)</a>
Scrub distribution	Support Services, Lisa Shelton <a href="mailto:sheltonl@uab.edu">(sheltonl@uab.edu)</a> , <b>the charge for these will just be added to your tuition.</b>

## 4th Year Scheduling

Your final 4th year schedule has to be approved by Dr. Kezar. You also need to select a career advisor from the approved career advisor list and have that advisor approve your list of courses.

The only way to do that step is to go through the lottery. You will not actually schedule through the lottery, but you will choose an advisor and have that advisor approve your list and then stop; you will not rank any courses.

All of the students go through the lottery but the regular MD students do an extra step in that after their advisor has approved their course list they then will rank courses for when they want to take them throughout the year. MD/PhD students do not do that step.

So the steps are:

1. Enter the FYSH, select a career advisor, have them approve your list of courses
2. Then have Dr. Kezar approve the courses
3. Then go to the scheduler (Marla Ferguson)

## Checklist for Completing Thesis and Returning to Clinics

### Before the defense:

- Attend MS-III summer orientation (fingerprinting, BLS certification, general info, etc.)
- Obtain graduate school "Guide to completing a thesis or dissertation" packet
- Submit "Application for Degree Form" within 3 weeks of beginning of semester
- Contact department office concerning planning for defense (room reservations, etc.)
- Contact Graduate School for "Dissertation Approval Form" 3 weeks before private defense
- E-mail dissertation to committee and MSTP office 2 weeks (or requested time) before private defense
- Contact journals and obtain reprint permission (required to submit dissertation to Graduate School)

### After the defense:

- Complete all forms in "Guide to completing a thesis or dissertation" packet, including Survey of Earned Doctorates, UAB Publication Agreement, and copyright form (if copyright is desired), and turn in with "Dissertation Approval Form"
- Pay applicable fees (including microform, and possibly copyright) and turn in receipt to Graduate School
- Submit electronic copy of dissertation to Graduate School for format review
- Submit Graduate School approved dissertation to the MSTP Office for copying and binding

### Transition to clinics:

- Advisor or Graduate Program Director informs MSTP of graduation date (by letter)
- Meet with MSTP Program Director (at least 3 months prior to finishing PhD)
- Obtain forms from MSTP office ("Return from Leave of Absence" and "Transition from Research to Clinical Phase")
- Meet with Dean of Students (Dr. Laura Kezar) and Lacy Lazenby for scheduling of rotations
- Obtain forms and checklist for return to clinics from Registrar

## Appendix IX: Tips for Reimbursement

Reimbursements must be in the computer system within **30 days from the time of the transaction**. **Reimbursements must equal \$25.00 or more before a payment request will be processed**. Turn in all receipts as soon as possible upon your return or when the purchase was made. The documentation required includes the following:

- Conference Itinerary if reimbursement is part of a conference/symposium
- Flight itinerary and proof of purchase if ticket is purchased on own
  - a. **Flight itineraries should be processed through the MSTP Office if travel is for a UAB student-attended conference or symposium. Flight information should be sent via e-mail no later than 6 weeks before the flight is to take place.**
- **Paid by cash:** Original register receipt indicating form of payment.
- **Paid by check:** Copy of an online banking record showing that specific payment circled.
- **Paid by credit card:** The original credit card receipt (showing at least the **name** and **last four digits** of the card used) and a transaction statement.

### How will you receive your reimbursement?

If you are being reimbursed as an employee (see conditions below) you will be asked to return to the MSTP Office to sign a form generated by the computer once the process has begun. Students being reimbursed as employees will receive payment directly to their home address or can request to pick it up at the MSTP Office.

Students will be reimbursed as employees under the following circumstances:

- If the student is on the departmental NIH Grant.
- If the student is being reimbursed from their Individual Grant.
- If the student is being reimbursed for travel (must be turned in within 60 days of travel date).
- **Hosting recruits** (the restaurant receipt must be itemized and have the total payment).
- Once the reimbursement is approved the student should receive a notification email from the MSTP Office. The check for the reimbursement(s) should arrive within a few days.

All other reimbursements will be sent to the student's tuition account. Every student is **required** to have **direct deposit** from their student account (see directions below). Enhancement funds will be **withheld** until this requirement is met. This is to insure you receive your payment 1) as soon as possible/the next working day; 2) that the payment does not get applied to tuition charges (provided there are no charges at time of reimbursement). The MSTP office will do everything possible to time

the reimbursement when there are no tuition charges on the account. If there are other fees, such as **traffic citations**, the reimbursement will be processed as normal.

**To set up direct deposit from your student account:**

1. Go to Blazernet – <https://blazernet.uab.edu>
2. Click on Student Resource tab
3. Click on Manage my Direct Deposit located in the Student Accounting Box

You will be notified by e-mail any time a change to your account information is made.

## Appendix V: Requirements and Electives available for the MSTP Clinical Phase and award of the MD degree

The specific policies concerning the requirements for graduation from the MSTP and completion of the MD degree are detailed in Section III.C of this handbook. The key points will be reiterated here along with several graphical illustrations of the requirements and alternative schedules available.

### MSTP Clinical Curriculum – Requirements

3rd year rotations		4th year rotations	
Required Clerkships	Weeks	Required Clerkships	Weeks
Internal Medicine	8	Internal Medicine (Acting Internship)	4
Surgery	8	Surgery or Critical Care or Ambulatory or Elective (Acting Internship)	4
Pediatrics	8	Elective	4
Psychiatry	4	<b>Total</b>	<b>12</b>
Neurology	4		
Family Medicine*	4		
	8		
Obstetrics-Gynecology		<sup>a</sup> Extra MSTP Electives Permitted	as time permits
<b>Total</b>	<b>44</b>		

#### Time Constraints

Residency Applications - Late Fall  Match Day - mid - March Minimal Time = 15 months; maximal Time = 18 months	<sup>b</sup> Completion of USMLE Step 2 & CSE July 1 Start Date for most Residencies
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- a. Additional 4 week electives can be taken by MSTP students if they choose, but are not required. The MST Program includes 56 weeks of required courses, an optimal additional 8 weeks of electives and 8 weeks for interview trips and/or study for Step 2 of the USMLE. The MSTP stipend and tuition remission cannot be extended to activities outside the program.
- b. See SOM web site for further details ([www.uab.edu/medicine](http://www.uab.edu/medicine))

The clinical phase of the program includes most of the clerkships normally taken by third-year medical students, two acting internships (4 weeks each), and one additional four-week elective normally part of the fourth year. MD/PhD students are required to take a family medicine rotation (\* this can be either the third year clerkship or a 4th year elective), but are not required to take Special Topics during the MS-II/IV year.

The clinical phase comprises 56 weeks of required classes and with an extra eight weeks of electives allowed to allow appropriate scheduling. Additional time is allowed off for residency interviews and time for study and preparation for the part 2 of the National Boards (USMLE). **All MSTP students are assigned to the Birmingham campus for their clinical training.** However, elective rotations at other Institutions (potential sites for residency and fellowship training) are available. The MSTP covers tuition for up to 3 semesters of clinical training.

The bulk of the clinical phase consists of the clinical clerkships normally taken during the third year of Medical School. These include 8-week blocks in Internal Medicine, Surgery, Pediatrics, and Obstetrics-Gynecology, and a four-week block in Neurology, Psychiatry, and Family Medicine.

The normal requirements for the fourth year of medical school are substantially abbreviated for MSTP students, since the elective requirements and the scholarly activity requirement can be satisfied by the Ph.D. research. Only 3 elective rotations (4 week blocks) are required, two of which must be acting internships. Depending on which block during the calendar year the student returns to the clinical clerkships, several additional four week electives may be taken as time permits.

Dr. Kezar will sign off on all rotations taken during the MDIII year, even if these are “senior” rotations. In the spring before the MS-IV year, you choose a career advisor in your specialty area, and they will have to sign off on your picks for the 4th year lottery. If you still have some clerkships to finish up during 4th year, you will want to preschedule those before the lottery for 3rd and 4th year. **If you still have required 3rd year clerkships to take during the final clinical year, do not schedule them during months where you will have to be away a significant amount of time for residency interviews. During interview months, either schedule time off or schedule an elective.**

The practical effect of the requirements and available options is that the minimal time to complete the clinical phase of the program is 14 months, while the maximal time is 20 months. Entry in the clinical phase of the program during the School of Medicine calendar blocks beginning in January or February will allow all the requirements to be completed for graduation at the end of May with only the normal 1 month gap between the end of the MSTP stipend and the start of most residency training programs in July.

Below is a chart showing the scheduling consequences of beginning the clinical phase at the beginning of each block and the resulting blocks in which the program ends using the minimal and maximal optional activities. Note that the completion of the program occurs at the end of the designated block, while entry must be at the beginning of the designated block. **Entry into the clinical phase of the program is prohibited during the months of April through November. Exception is made for entry into Block I (July/August) or if the MSTP student has 4 semesters of medical school tuition covered by a fellowship.** This is due to the fact that the MSTP is required to pay double tuition (UASOM and UAB Graduate School) in these circumstances.

It is strongly encouraged, but not required, that you arrange your required MS-III clerkships so that all are completed prior to taking USMLE Step 2CK.

Special Topics Weeks during the MS-II/IV years are not required for MSTP students; however a MSTP student can participate if they wish.

Entry during Block I will require the student to find additional funding/employment opportunities for the 6 months between the end of their MSTP requirements and the normal July start date of residency programs. The UAB MSTP does not pay tuition or stipend after 3 semesters of clinical clerkships. The only exception to this rule is if a student has an individual fellowship award that covers the majority of their tuition and stipend. If a student chooses this route, they have two choices with regards to graduation. They can (1) choose to graduate in December or (2) take a leave of absence once medical school requirements are met and graduate with the rest of the class in May. If you opt for the leave of absence you will not be required to pay tuition and the MSTP will pay the minor amount of school-related fees (~\$1000). Also, if you take the leave of absence, you CANNOT have finished all the graduation requirements before December. This usually means that you need to delay taking at least one of the exams until after the December graduation date OR just make sure you are enrolled in a SOM clerkship or elective in Block 3b. As far as we know, **there is no difference between these two options** – as far as residency program preferences. Therefore, this decision is up to the student.

	Minimal Schedule - 14 months	
	Maximal Schedule - 20 months	
Block	Start Month	End Month
4a	January	May
4b	February	May
5a	N/A	
5b	N/A	
6a	N/A	
6b	N/A	
1a	July	December
1b	August	December
2a	N/A	
2b	October	May
3a	November	May
3b	N/A	

As in other areas of the program, an exception to some aspects of these requirements is possible, but such an exception requires a written request to the MSTP Director. If a student would like to pursue a possible extension of the length of the program after the requirements for graduation have been fulfilled, such a written request for an extension must be submitted at least six months prior to the completion of the requirements for graduation. Whether the request is granted will depend on specific individual circumstances and the reasons for the failure to complete the dissertation at the optimal time.

## MSTP Requirements

Component	Regular MD (includes MD/MPH)	MSTP
Fundamentals	Full Course	
Translational Research Seminar (01-794A/B)	Not applicable	Required for all MSTP students.
Attendance Requirements during MS1/MS2 coursework	Per specific course syllabus	Any attendance requirements are waived for MSTP students when they are dual enrolled in graduate and medical school coursework
Scholarly Activity	8 weeks of activity during the MS3/MS4 years	Requirement fulfilled by completing all PhD Degree requirements.
Special Topics	4 weeks	2 weeks (Requirement fulfilled by STP2043 – Survival Skills for Physician Scientists)
Beginning Clinical Rotations	Not applicable	Required to start on one of these three clinical services: <ul style="list-style-type: none"> <li>• Family Medicine</li> <li>• Internal Medicine</li> <li>• Pediatrics</li> </ul> unless prior approval is given to waive this requirement
Electives	20 weeks	4 weeks (cannot be fulfilled by the Family Medicine Elective)
Rural/Selective	4 weeks	Not required
MS3 Clerkships	Must be completed before the start of Block III in the MS4 year	Can be taken anytime
Family Medicine	Clerkship during the MS3 year	May be taken anytime and can be either a Clerkship or Elective (but if taken as an Elective, it does not count towards the MSTP Elective requirements)
Acting Internships		
Medicine	4 weeks	4 weeks
Surgery or Critical Care	4 weeks	4 weeks (choose one of these three or an Elective AI)
Ambulatory	4 weeks	
Timing of USMLE Step II	All MS3 Required Clerkships must be completed prior to the USMLE Step II CK	USMLE Step 2 CK can be taken prior to the completion of the MS3 Required Clerkships
Minimum number of months in clinical curriculum	22 months	14 months
MSTP Retreat (One day or one weekend in June/July)	Not Applicable	MSTP students to be given preference for days off during this weekend so that they can attend the MSTP Retreat
Allowed time off from clinical rotations for interviews/Step II study	Not applicable	8 weeks

# UAB-SOM Clinical Calendar for Academic Year 2013 – 2014

\*\*\*\* All Dates Subject to Change by UAB-SOM \*\*\*\*

Academic Calendar Last Revised 07.10.09

## Block I Jul 1, 2013 – Aug 25, 2013

- a
- |        |           |           |              |
|--------|-----------|-----------|--------------|
| Week 1 | 01-Jul-13 | to        | 07-Jul-13    |
| Week 2 | 08-Jul-13 | to        | 14-Jul-13    |
| Week 3 | 15-Jul-13 | to        | 21-Jul-13    |
| Week 4 | 22-Jul-13 | to        | 28-Jul-13    |
|        |           |           |              |
| b      | Week 5    | 29-Jul-13 | to 04-Aug-13 |
|        | Week 6    | 05-Aug-13 | to 11-Aug-13 |
|        | Week 7    | 12-Aug-13 | to 18-Aug-13 |
|        | Week 8    | 19-Aug-13 | to 25-Aug-13 |

## Block II Aug 26, 2013 – Oct 20, 2013

- a
- |         |           |           |              |
|---------|-----------|-----------|--------------|
| Week 9  | 26-Aug-13 | to        | 01-Sep-13    |
| Week 10 | 02-Sep-13 | to        | 08-Sep-13    |
| Week 11 | 09-Sep-13 | to        | 15-Sep-13    |
| Week 12 | 16-Sep-13 | to        | 22-Sep-13    |
|         |           |           |              |
| b       | Week 13   | 23-Sep-13 | to 29-Sep-13 |
|         | Week 14   | 30-Sep-13 | to 06-Oct-13 |
|         | Week 15   | 07-Oct-13 | to 13-Oct-13 |
|         | Week 16   | 14-Oct-13 | to 20-Oct-13 |
|         |           |           |              |
| s-      | Week 17   | 21-Oct-13 | to 27-Oct-13 |

## Block III Oct 28, 2013 – Dec 22, 2013

- a
- |         |           |           |              |
|---------|-----------|-----------|--------------|
| Week 18 | 28-Oct-13 | to        | 03-Nov-13    |
| Week 19 | 04-Nov-13 | to        | 10-Nov-13    |
| Week 20 | 11-Nov-13 | to        | 17-Nov-13    |
| Week 21 | 18-Nov-13 | to        | 24-Nov-13    |
|         |           |           |              |
| b       | Week 22   | 25-Nov-13 | to 01-Dec-13 |
|         | Week 23   | 02-Dec-13 | to 08-Dec-13 |
|         | Week 24   | 09-Dec-13 | to 15-Dec-13 |
|         | Week 25   | 16-Dec-13 | to 22-Dec-13 |
|         |           |           |              |
| x-      | Week 26   | 23-Dec-13 | to 29-Dec-13 |
| x-      | Week 27   | 30-Dec-13 | to 05-Jan-14 |

## Block IV Jan 06, 2014 – Mar 2, 2014

- a
- |         |           |           |              |
|---------|-----------|-----------|--------------|
| Week 28 | 06-Jan-14 | to        | 12-Jan-14    |
| Week 29 | 13-Jan-14 | to        | 19-Jan-14    |
| Week 30 | 20-Jan-14 | to        | 26-Jan-14    |
| Week 31 | 27-Jan-14 | to        | 02-Feb-14    |
|         |           |           |              |
| b       | Week 32   | 03-Feb-14 | to 09-Feb-14 |
|         | Week 33   | 10-Feb-14 | to 16-Feb-14 |
|         | Week 34   | 17-Feb-14 | to 23-Feb-14 |
|         | Week 35   | 24-Feb-14 | to 02-Mar-14 |

## Block V Mar 3, 2014 – Apr 27, 2014

- a
- |         |           |           |              |
|---------|-----------|-----------|--------------|
| Week 36 | 03-Mar-14 | to        | 09-Mar-14    |
| Week 37 | 10-Mar-14 | to        | 16-Mar-14    |
| Week 38 | 17-Mar-14 | to        | 23-Mar-14    |
| Week 39 | 24-Mar-14 | to        | 30-Mar-14    |
|         |           |           |              |
| b       | Week 40   | 31-Mar-14 | to 06-Apr-14 |
|         | Week 41   | 07-Apr-14 | to 13-Apr-14 |
|         | Week 42   | 14-Apr-14 | to 20-Apr-14 |
|         | Week 43   | 21-Apr-14 | to 27-Apr-14 |
|         |           |           |              |
| s-      | Week 44   | 28-Apr-14 | to 04-May-14 |

## Block VI May 5, 2014 – Jun 29, 2014

- a
- |         |           |           |              |
|---------|-----------|-----------|--------------|
| Week 45 | 05-May-14 | to        | 11-May-14    |
| Week 46 | 12-May-14 | to        | 18-May-14    |
| Week 47 | 19-May-14 | to        | 25-May-14    |
| Week 48 | 26-May-14 | to        | 01-Jun-14    |
|         |           |           |              |
| b       | Week 49   | 02-Jun-14 | to 08-Jun-14 |
|         | Week 50   | 09-Jun-14 | to 15-Jun-14 |
|         | Week 51   | 16-Jun-14 | to 22-Jun-14 |
|         | Week 52   | 23-Jun-14 | to 29-Jun-14 |

### Key

- s Special Topics (Weeks 17 and 44)
  - ! MS4 spring graduates finish coursework
  - x OFF for Winter Break, no classes
- Any absence from a rotation is dependent on departmental work schedules.
- Contact the specific department if you have questions regarding attendance.

### Block VI

Block VI clinical schedules will always overlap for two separate classes of graduates. Beginning MS3s may start rotations in Block VI while finishing MS3s will also be taking clerkships in Block VI.

This clinical course calendar for academic year 2013-2014 pertains to the following medical student classes:

- Class of 2014 (Blocks I – VI)
- Class of 2015 (Blocks I – VI)
- Class of 2016 (Block VI only)

## **Appendix VI: MSTP Research Mentor's Guide**

### ***Communication of Requirements and Expectations***

Clearly point out to the MSTP student at the beginning of his/her tenure in your lab all theme or program requirements for getting an advanced degree. Please consult with the Graduate Theme/Program Director and encourage your student to consult with this individual, to ensure that the specifics of each of these requirements are clear to both you and the student within the first 2 months of the student's tenure in the Lab.

Specific Requirements include:

- All courses that will be required for completion of the PhD (advanced courses, journal clubs, seminars, etc.).
- Advancement to Candidacy, including format and timing of both written and oral examination components.
- Formation of a Scientific Advisory/Dissertation Committee. This must be completed within 6 months of the date that the student joins the lab, regardless of the requirements of the specific graduate theme/program.
- Rules concerning writing the dissertation and formal completion of the PhD degree.

Scientific Expectations for productivity should also be discussed in some detail. Issues including the scope and focus of the student's project, the number of first-author papers expected, and specific milestones of accomplishment over the next several years should be discussed and agreed upon between the mentor and student.

### ***Identification and Guidance in developing a dissertation research project***

The NIH expects that students supported by the MSTP mechanism should complete the program within 7 years. The research mentor will:

- Help the student formulate a scientific project that is both important enough to qualify for the award of the PhD and feasible to complete within approximately 3.5 years.
- Guide the student in writing manuscripts for publication, in developing informative poster presentations, and presenting scientific seminars. It is critical that the student learn to present excellent scientific talks.
- Provide the student an opportunity to learn how to write a grant proposal, understand how grants are reviewed, and develop insight into common problems in "Grantsmanship". All MSTP students entering their PhD research in 2013 or after are required to submit individual training grants to the NIH (F30/F31) during their first or second year of thesis research. Research Mentors are expected to facilitate these grant submissions.
- Follow closely the scientific progress of the MSTP student and keep him/her on a productive research track. Communication between the Research mentor and the MSTP Committee is important to resolve issues that might be slowing progress. Problems should first be discussed

with the student's MSTP mentor, but contact with the Program Director or Associate Director is welcome at any time.

### ***Research Mentor's Responsibilities to the MST Program***

Research Mentors should provide a rigorous and nurturing environment for scientific achievement, including communicating clear expectations of productivity and the specific requirements for completing the PhD degree in the relevant graduate program as outlined above.

If the Research Mentor has not previously graduated a PhD student, then the MSTP requires that a Senior Advisor also be identified for the MSTP student. This Senior Advisor should be appointed as a member of the thesis committee. Please see Appendix II for the form that will need to be completed and signed to formally appoint a faculty member as a Senior Advisor.

**Research Mentors will only be allowed to have three or fewer MSTP students in their lab completing a PhD thesis at any time.**

#### **Effort Reporting**

Research Mentors are also required to certify their student's effort report in a timely manner. This reporting is required by UAB and failure to comply will result in the student not receiving their stipend.

#### **Dissertation Committee**

The Scientific Advisory/Dissertation Committee should be formed and the first meeting held within six months of the date that the student entered into your laboratory. The MSTP mentor, a member of the MSTPAC assigned to each student, will serve as either an ex officio or full member of the Dissertation Committee. MSTP students are required to have committee meetings every 6 months throughout their tenure in the lab.

The Research Mentor is expected to submit a written progress report to the MSTP Director after each dissertation committee meeting. A form for this report can be found on the MSTP website and is included in this handbook (Appendix II).

#### **Transition from Research to Clinical Phase**

In order to schedule the student's re-entry into the MD curriculum, a written notice indicating the date that the student will finish the PhD must be delivered to the MSTP Director at least 3 months prior to the planned transition. The "Transition from Research Phase to Clinical Phase" Form should be used for this notice (see Appendix II). The Dissertation must be formally submitted to the Graduate School prior to re-entry into the MD curriculum.

#### **Financial Support**

For students entering research labs in 2007 and beyond, the MSTP will pay for 100% of the student's stipend, tuition, and fees for 1 year after the student selects a research lab (usually ending in September). Thereafter, the Research Mentor is responsible for providing financial support for 100%

of the student's stipend for three years (currently \$29,000). The MSTP will still cover tuition and fees for these three years.

The Research Mentor is responsible for a portion of the MSTP student's stipend even if that student is placed on a UAB Institutional Training Grant (T32) or if the student received an individual fellowship (F30/F31/or equivalent). The mentor will be responsible for 100% of that portion of the student's stipend that exceeds the amount being provided by the individual fellowship (up to the UAB base stipend). **If the source of the individual fellowship is from NIH, the supplementary funds must be derived from a non-NIH source.** MSTP students are not allowed to have dual assignments. They are appointed as either Graduate Assistants OR Graduate Student Trainees, and cannot have a combination of appointments. If the advisor does not have access to funds from a source other than NIH, he/she should consult with their department chair.

For all students, after 4 years the Research Mentor will be responsible for the student's entire stipend, tuition, and fees until their thesis is successfully defended and they return to clinical rotations. These costs can be covered by a Research grant, an individual NRSA award, or another NIH training grant subject to some limitations (contact the MSTP office for the specifics). It is required that the student be finished with their PhD prior to re-entry into the MD curriculum.

Should the Research Mentor leave UAB the student may have the option of going with the mentor in order to complete the research project. However, the same timeline for completion of the research project should be maintained. No new MSTP students should be recruited into a Faculty member's lab if there is a significant probability that the Faculty member plans to leave UAB within a year.

#### ***IRB and IACUC approvals required for admission to candidacy and application for degree***

There are two times in a graduate student's career when the Graduate School checks to see if their research requires IRB and/or IACUC approval and whether the student has these necessary approvals: admission to candidacy and application for degree. Basically, the Graduate School cannot allow a student to be advanced to candidacy if they are doing human or animal research unless they have the appropriate approvals in place (not pending). Similarly, if students tell us at the advancement to candidacy stage that they are doing human or animal research, then when they apply for their degree, the Graduate School will require that their approvals have remained current and that a copy of these approvals are submitted with their thesis or dissertation. If human or animal research is involved in the thesis, the student cannot graduate in the absence of these approvals.

#### ***IRB Notes***

**Advancement to candidacy:** In the case of the IRB approval, the IRB office would prefer that approval be granted to the student directly and that the title of the approval be close to the title of their eventual dissertation. If a student checks "human subjects" on the advancement to candidacy form, they will be expected to have an approved (not pending) IRB review. The IRB approval document either (1) will be in their name or have a title which is substantially similar to the title of their proposed thesis or (2) will provide documentation that an amendment has been made to the PI's IRB protocol approval, listing the student as an investigator participant and showing the thesis title. If such

documentation is not provided or is pending, the student will be referred back to IRB. If the student's name and thesis title are not correct on the IRB approval form, they will be referred back to IRB.

**Application for degree:** When a student applies to graduate (generally at the beginning of the semester in which they intend to graduate), the graduate office will check their advancement to candidacy form. If human subjects were involved in the research, then a check will be made to see what kind of IRB approval the student has. If the human research was "exempt", then a copy of the IRB approved exemption form should be submitted with the thesis. If an expedited or full review of the IRB application was made at the time of advancement to candidacy, then the student will be asked to provide the most recent approval from the IRB for the use of human subjects. This check will happen early in the semester, so that the student has time to obtain the appropriate documents from IRB. If the student's name is not on the IRB approval form or if the title of the dissertation is not close to that of the project for which IRB approval was obtained, the student will be referred back to the IRB, even if that delays fulfilling their graduation requirements. For questions regarding this policy, please contact Dr. Jeff Engler.

#### ***IACUC Notes***

**Advancement to candidacy:** If a student checks "animal subjects" on the advancement to candidacy form, they are expected to be listed on one of the mentor's IACUC approved projects. The student name does not have to appear on the IACUC approval form, but the student must be listed as an animal used on the Animal Use Form.

**Application for degree:** When a student applies to graduate (generally at the beginning of the semester in which they intend to graduate), the graduate office will check their advancement to candidacy form. If animal subjects were involved in the research, then a check will be made to see if the student is listed on one of the mentor's IACUC approved projects.

## Appendix VII: Tip Sheet for Students Involved in Research Involving Human or Animal Subjects

	IRB	IACUC	OH&S
Who can serve as Principal Investigator (PI)?	PI may be the student, however, the faculty mentor must be listed as Co-PI and is equally responsible for the conduct of the study.	PI must have faculty status. List faculty mentor as PI on animal protocol and list student's name in parentheses after title.	PI may be the student, however, the faculty mentor must be listed as Co-PI and is equally responsible for the conduct of the study.
How are students added to a protocol?	(1) Submit amendment/revision form noting addition of personnel to existing protocol, (2) submit new protocol including student's name as PI (3) add student's name to request for changes in Investigator's Progress Report (renewal form) if involvement coincides with renewal due date.	(1) Submit modification request form noting addition of personnel to existing protocol, (2) submit new protocol including student's name in personnel section, or (3) add student's name to renewal form if involvement coincides with renewal due date.	(1) Send email to Donna S. Williamson ( <a href="mailto:dsw@uab.edu">dsw@uab.edu</a> ) and indicate protocol name and funding agency (provide OH&S project #) and list students to be added. (2) Amend Project Registration form to include additional student names. Make a note that the addition of students is the only amendment.
When is it a procedural vs. personnel modification?	n/a	If the student proposes to conduct animal procedures that are not already part of an approved protocol under their mentor then the mentor must either submit an amendment or a new protocol.	n/a
Timeline for review and approval.	Amendment/Revisions are normally reviewed within a week – you may add RUSH to top of form with an explanation as to the nature of the RUSH request – some request may be returned in 2 – 3 working days.	Personnel modifications are reviewed within 1 -2 business days of receipt and can be approved when all required training documentation is on file. Procedural modifications and new protocols received by the 21 <sup>st</sup> of the month (or next regular business day if 21 <sup>st</sup> is holiday or weekend) are entered into the subsequent month for review. Voting for protocols called for Full Committee Review occurs on the last Wednesday of the assigned review month.	Personnel modifications are reviewed within 1 -2 business days of receipt. PI and added personnel will be notified if additional information is needed.
Required training.	Initial and continuing Human Subjects Training which as applicable. Available training options and instructions are available at <a href="http://www.uab.edu/research/administration/offices/IRB/Training/Pages/default.aspx">http://www.uab.edu/research/administration/offices/IRB/Training/Pages/default.aspx</a> If students have completed training at another institution it may be submitted for review by the OIRB and may be accepted to meet UAB's training requirements. On-line training may be started before student arrives on campus.	Students must complete the following training items, accessible through BlazerNet: (1) Basic training in rules, regulations, ethics and (2) species-specific training. Items 1 and 2 are on-line training modules (ca. 3 hrs).	Depends on the nature of the research. In addition to IACUC and IRB requirements, the use of material of human origin requires annual blood-borne pathogen training.
Occupational Health Requirements		The requirements for the UAB Occupational Health Program must be met before final approval to	The requirements for the UAB Occupational Health Program must be met before final approval to

		work with animals is granted. All non UAB employees must receive clearance from their personal physician indicating that the physician has reviewed the proposed work and the medical history of the individual, that the individual is current for all required immunizations, and has been cleared to conduct the work proposed on the UAB Employee Occupational Health Enrollment Form. The letter and the form must be submitted before the requirements are met and the student cleared. <b>Please note: this may take extra time.</b>	work with animals and certain other work (i.e., work with material requiring immunizations) is granted. All non UAB employees must receive clearance from their personal physician indicating that the physician has reviewed the proposed work and the medical history of the individual, that the individual is current for all required immunizations, and has been cleared to conduct the work proposed on the UAB Employee Occupational Health Enrollment Form. The letter and the form must be submitted before the requirements are met and the student cleared. <b>Please note: this may take extra time.</b>
Student defined.	An individual enrolled in a UAB undergraduate or graduate program.	An individual enrolled in a UAB undergraduate or graduate program.	An individual enrolled in a UAB undergraduate or graduate program.
Non-UAB students.	An individual enrolled in an undergraduate or graduate program at another institution. Non-UAB students must complete training; however, training from their “home” institution may be accepted. Please call OIRB for clarification. Non-UAB students may need a “blazer ID” to access on-line training. Faculty mentors may contact Human Resources for more information about obtaining a blazer ID and appointment of the student.	An individual enrolled in an undergraduate or graduate program at another institution. Non-UAB students may complete training items 1 and 2 but are not eligible for enrollment in the UAB Occupational Health Program. They must submit documentation of an equivalent evaluation provided through their own personal physician. They may use the UAB form, which must be submitted with a physician clearance, as the basis for that evaluation.	An individual enrolled in an undergraduate or graduate program at another institution. Non-UAB students may complete UAB on-line training (call to register) but are not eligible for enrollment in the UAB Occupational Health Program. They must submit documentation of an equivalent evaluation provided through their own personal physician. They may use the UAB form, which must be submitted with a physician clearance, as the basis for that evaluation.
Sponsored Projects	If the student is the Prime Awardee of their own sponsored research project they must submit a new protocol specifically detailing the protocol which must be concordant with the funding application.	If the student is the Prime Awardee of their own sponsored research project (i.e., funds budgeted for direct support of animal purchases, per diems, supplies, etc.) they must submit a new protocol specifically detailing the animal procedures proposed in the corresponding grant, fellowship, contract, etc. If the student is the Prime Awardee of a grant, fellowship, contract, etc. with funds solely for salary support they must submit the IACUC form to register the project as a salary support project. Note: faculty mentor should be listed as PI on the IACUC form.	If the student is the Prime Awardee of their own sponsored research project, and that project either involves material that is potentially hazardous or requires some sort of approval from OH&S, they must submit a new protocol specifically detailing the protocol which must be concordant with the funding application.
Forms and staff directory.	<a href="http://www.uab.edu/irb">www.uab.edu/irb</a>	<a href="http://www.uab.edu/iacuc">www.uab.edu/iacuc</a>	<a href="http://www.uab.edu/ohs/">www.uab.edu/ohs/</a>

## **Appendix VIII: Summary of Program Requirements for Students and Faculty**

### **Summary of Program Requirements for Students**

- Maintain an up-to-date student profile on the MSTP website;
- Submit an updated CV and activities spreadsheet annually (by date requested);
- Respond in a timely manner (i.e. within 48 hours) to all e-mail sent by the UAB MSTP staff and/or directors to your UAB account;
- Complete the UAB Effort Report in a timely fashion.
- Attend monthly MSTP Translational Medicine Research Seminars and the Annual MSTP Retreat or obtain excused absence prior to seminar/retreat date;
- During graduate research years, schedule thesis update meetings every 6 months;
- Submit an electronic copy of the dissertation abstract to the UAB MSTP office within 2 weeks of a successful defense;
- Maintain an acceptable level of academic performance in all Medical and Graduate courses;
- Register for and complete the MSTP laboratory rotations within the required period;
- Participate in the annual Medical Student Research Day during the rotation and PhD dissertation phase of the program;
- Maintain an appropriate level of professional behavior in all interactions with faculty, students, staff, and patients.

### **Summary of Program Requirements for Faculty**

- Clearly explain the formal requirements for completing the PhD degree in their particular department, including the formal course requirements, the procedures for Advancement to Candidacy (both written and oral examinations), the formation of a Dissertation Committee within six months of the student starting in the lab, and rules concerning the writing of the Dissertation and formal completion of the PhD degree.
- Discuss expectations for scientific productivity with the student. Issues including the scope and focus of the student's project, the number of first-author papers expected, and specific milestones of accomplishment over the next several years should be discussed and agreed upon between the mentor and student.
- As stated, the Scientific Advisory/Dissertation Committee should be formed and the first meeting held no later than six months following the student's entry into the mentor's laboratory. The MSTP Mentor, a member of the MSTPAC assigned to each student, can serve either as an ex officio member or a full member of the Dissertation Committee.
- MSTP students are required to have two committee meetings per year throughout their tenure in the lab (i.e. once every 6 months).
- Submit a written progress report to the MSTP Manager within 2 weeks of each dissertation committee meeting. A form for this progress report can be found in Appendix II and on our website: <http://www.mstp.uab.edu>.

- If meetings are not held every six months and the written progress report is not received by the MSTP office within 2 weeks of the committee meeting, the thesis mentor will be put on a probationary status and will not be allowed to take new MSTP rotation or thesis students until corrective action is taken.
- Thesis Mentors should guide the student in writing manuscripts for publication, developing informative poster presentations, and presenting scientific seminars.
- The Thesis Mentor should provide the student with knowledge concerning the mechanics for preparation and submission of grant applications. Additionally, the mentor should assist the student in the development of insight and skills associated with “Grantsmanship”. All MSTP students entering their PhD years in 2013 or after are required to submit individual training grants to the NIH (F30/F31) during their first or second year of thesis research, and Thesis Mentors are expected to facilitate these grant submissions. Please see Appendix items X and XI for additional information.
- Provide a written final report of the Student's thesis years upon the student's completion of the PhD dissertation.
- Provide financial support as described for the first four years the student is assigned to the lab and all of this support after the student has been in the lab four years.
- **Complete the UAB Effort Report in a timely fashion.**

## Appendix X: Graduate School Incentive Program to Promote Individual Fellowship Applications

**MSTP Specific Instructions are listed in bold text**

**Rationale and Goal:** Relative to similar institutions which have vigorous research programs and generous external funding, UAB has a very small number of graduate students who have applied for and secured an individual fellowship to support their pre-doctoral education. We believe that many of our graduate students would be competitive for individual awards. Accordingly, the Graduate School is establishing an incentive plan designed to encourage more students to apply for individual fellowships. The Graduate School anticipates that implementing this incentive plan will be effective in garnering a significant number of individual fellowships in various programs at UAB. **Please note that although currently these applications for individual fellowships are not a requirement for MSTP students, they are strongly encouraged.**

### Plan Description:

The Graduate School will provide a monetary incentive for students to APPLY FOR individual fellowships funded by extramural agencies or foundations. Graduate students who apply for an individual fellowship (e.g. NSF Individual, NIH NRSA, or other) will be awarded \$250 from the Graduate School through the UAB Financial Aid office as a reward for submitting the application. To qualify for this award, the application must be reviewed prior to submission by the **MSTP program director and the student's mentor**. The student's mentor must provide a written verification to the Graduate School that the application is considered to be competitive. After submission of the grant application, the student will provide a PDF of the application to the Graduate School **and the MSTP Office**. The incentive reward will be authorized when the student provides evidence that the application has been received by the granting agency.

If a student's application is funded, the student will receive an additional financial reward:

For an NIH NRSA or other grant that provides less than the base stipend currently being offered to all students in that student's program, the student will receive supplementation of the fellowship stipend to an amount equal to \$1000 per year over the UAB base stipend for that student's level for the term that the grant is funded. **This additional \$1000 will be paid from Graduate School funds. If the student entered the research laboratory prior to 2007, the advisor will be responsible for providing 72.5% of that portion of the student's stipend that exceeds the amount being provided by the individual fellowship (up to the UAB base stipend). If the student entered the research laboratory in 2007 and beyond, the advisor will be responsible for 100% of that portion of the student's stipend that exceeds the amount being provided by the individual fellowship (up to the UAB base stipend).** If the source of the individual fellowship is from NIH, the supplementary funds must be derived from a non-NIH source. If the advisor does not have access to funds from a source other than NIH, he/she should consult with their department chair.

If the stipend amount of the external award is equal to or greater than the equivalent of \$2,400 more than the current base stipend in the student's program, the student is entitled to receive the full amount of the stipend.

**Eligibility:** This plan is available to students in any graduate program discipline in which extramural individual fellowship funding is available. To be eligible for both the reward for submitting the application and the supplement to a student's stipend, the award must provide more than half the current base stipend in the student's program. Applications for and receipt of travel and other small grants will not be eligible for an incentive award under this program.

To receive the application incentive (\$250) the following materials are required:

- A letter from the student's advisor verifying that the advisor reviewed the application and believes that it is competitive.
- Documentation that the amount of the fellowship provides greater than half of the student's current base stipend.
- An electronic or hard copy PDF of the application.
- Verification of receipt of the application by the funding agency.
- Incentives apply to applications submitted January 2, 2007 or later.

These materials must be submitted to **both** the MSTP Office and the Graduate School (ckinght@uab.edu)

If the application is successfully funded, the student should provide a copy of the award notice to both the MSTP office and Scott Austin in the GBS Office to receive the additional financial reward as described in the Plan Description.

The MSTP office will make every effort to make sure tuition and related fees are paid in order to keep your balance at zero, but to insure you receive your full award check your student account before providing a copy of the award notice.

## **Appendix XII: Vacation and/or Leave of Absence from UAB MSTP**

In general, MSTP students are expected to be available in the periods between academic terms. MSTP students are entitled to the following short-term leaves:

- A maximum of 15 calendar days (one-half month) paid leave of absence (vacation) per calendar year,
- Three calendar days paid sick leave of absence per calendar year, and
- Parental leave of absence (with pay) of 30 consecutive days per calendar year upon the birth or adoption of a child. Either or both parents are eligible for parental leave.

These leaves (vacation, sick, parental) do not accrue. All leaves require notification of and approval by the MSTP Program Director, Research Mentor, and Graduate Theme Director and may be extended without pay, if necessary, with the permission of the MSTP Program Director. Program policies regarding leaves of absence must apply equitably to all full time students in good standing in the program. With the agreement of the MSTP Program Director, Mentor, and Graduate Theme Director, extended, unpaid, nonemergency absences from campus for periods up to a month may be approved. Extended absences (without pay) for non-academic purposes should be limited. In emergencies, graduate assistants should inform the MSTP Program Director, Research Mentor, and Graduate Theme Director as soon as possible about the need for a leave of absence. See Graduate School Policy 10: Leave of Academic Absence: <http://www.uab.edu/graduate/component/content/article/23-students/catalog/72-policies-and-procedures#limit32>.

### **Voluntary LOA (if taking UASOM coursework), under primary direction of the Associate Dean of Students and the MSTP**

- The student must fill out and sign a Leave of Absence form for both the medical school and the graduate school. Leave of Absence forms for the graduate school can be found on the graduate school's web site at: <http://www.uab.edu/graduate/images/acrobat/forms/leaveofabsence.pdf>
- Leave of Absence forms for the medical school must be picked up directly from the medical school.
- All graduate school leave forms must be approved by the student's graduate program director, MSTP Director and the Graduate School Dean. Requests for leave from the UASOM must be approved by the Associate Dean for Students.
- Once the requests have been approved by the appropriate individuals, the student's employment will then be terminated by the MD/PhD program via his or her ACT document using whatever date the leave is to be effective.
- During a Leave of Absence each student is required to retain his or her health-related fees through the medical school. These fees should automatically process on the student's account after he or she goes on leave; however, the student should monitor their account to ensure that this actually happens. If the student's health-related fees do not automatically process on the student's account after the student has gone on leave, then Gwen Stewart in Student

Accounting should be contacted immediately at 934-9893 to ensure that these fees get added and the student is not without insurance coverage.

- In order for the student to return from an approved Leave of Absence, the director must submit a request to the Graduate School as well as the Associate Dean for Students, to allow the student to be able to re-enroll in courses. Once this is done, the student should be rehired by the MD/PhD program via his or her ACT document using whatever effective date the student is to return.

### **Voluntary LOA (if doing graduate/thesis work) under primary direction of the Graduate School and the MSTP**

Students in good academic standing may request a leave of absence for a period not generally to exceed two years. The request for a leave of absence must be made in writing to the graduate program director and must include the anticipated duration of the leave. A copy of the approved request shall be forwarded to the Graduate School. Students on leave shall not undertake any requirements for the degree.

- Leave of Absence forms for the graduate school can be found on the graduate school's web site at: <http://www.uab.edu/graduate/images/acrobat/forms/leaveofabsence.pdf> . Leave of Absence forms are not necessary for the medical school, as MSTP student in their graduate years are already on temporary LOA from the UASOM.
- All graduate school leave forms must be approved by the student's graduate program director, MSTP Director and the Graduate School Dean.
- Once the requests have been approved by the appropriate individuals, the student's employment will then be terminated by the MD/PhD program via his or her ACT document using whatever date the leave is to be effective.
- During a Leave of Absence each student is required to retain his or her health-related fees through the medical school. These fees should automatically process on the student's account after he or she goes on leave however, the student should monitor their account to ensure that this actually happens. If the student's health-related fees do not automatically process on the student's account after the student has gone on leave, then Gwen Stewart in Student Accounting should be contacted immediately at 4-9893 to ensure that these fees get added and the student is not without insurance coverage.
- In order for the student to return from an approved Leave of Absence, the director must submit a request to the Graduate School to allow the student to be able to re-enroll in courses. Once this is done, the student should be rehired by the MD/PhD program via his or her ACT document using whatever effective date the student is to return.

### **Involuntary LOA**

The procedures are the same for involuntary LOA during either the medical or graduate years with the exception that the procedure is initiated by the UASOM or the UAB MSTP.

## **Parental LOA**

Parental leave of absence (with pay) of 30 consecutive days per calendar year upon the birth or adoption of a child is permitted. Either or both parents are eligible for parental leave. The Graduate School and the SOM have different policies surrounding parental LOA. MSTP will enforce the most relevant policy depending on your current student status upon the birth or adoption of a child. It is important that notification be given to the MSTP Program Director at the second trimester of the pregnancy or the initial stages of the adoption process. This notification enables both parties to meet and create an adequate LOA so not to interrupt both academic and parental obligations.

## **Parental LOA if on an Individual Training Award from the NIH**

Current NRSA policy indicates that trainees and fellows may receive stipends for up to 60 calendar days of parental leave per year for the adoption or the birth of a child when those in comparable training positions at the grantee organization have access to this level of paid leave for this purpose. Note that as the current UAB Policy states only 30 consecutive days per calendar year are permitted, this also is the policy for all MSTP students until further notice.

## Appendix XIII: Tax Information for MSTP Students

### U.S. CITIZENS AND PERMANENT RESIDENTS - TAXABILITY OF UAB PAYMENTS

**Important Note:** This brief discussion of tax items is not to be considered tax advice. Where needed, students should refer to IRS publications and seek competent tax counsel or contact the IRS directly via their website.

#### **Graduate Student Traineeships**

Awards with monthly stipend payments, usually the funding source is some sort of training grant.

**Stipend awards:** Any portion of a fellowship in excess of tuition, fees, and required books and equipment is subject to federal income tax (i.e. your stipend). UAB does not withhold taxes from fellowships or issue W-2 forms. You must self-report the taxable amount. Useful tax information can be found in IRS Publication 970: <http://www.irs.gov/publications/p970/index.html> (Tax Benefits for Education - especially look at Scholarships and Fellowships – towards the bottom of this part it tells you what line to put your stipend amount on and how to code it, depending on the tax form you are using).

**Tax Withholding Form:** You generally have to make estimated tax payments if you expect to owe tax of \$1,000 or more when you file your return. Use Form 1040-ES, Estimated Tax for Individuals, to figure and pay your estimated tax (and Alabama State Form 40-ES). For additional information, refer to Publication 505, Tax Withholding and Estimated Tax: <http://www.irs.gov/publications/p505/index.html> These forms contain Estimated Tax Worksheets. Payments are due by April 15 (for January - March income), June 15 (for April - June income), September 15 (for July - September income), and January 15 (for October - December income). Forms are available at [www.irs.gov](http://www.irs.gov) and [www.ador.state.al.us/incometax/ITindex2.html](http://www.ador.state.al.us/incometax/ITindex2.html).

**CAUTION – AVOID TAX PENALTIES:** Federal 1040 instructions state that you may be assessed a tax penalty when filing your return if you “owe at least \$1,000 and it is more than 10% of the tax shown on your return or you did not pay enough estimated taxes by any of the due dates.”

#### **BRIEF OVERVIEW OF Traineeships or Fellowships**

For the stipend part of the payments:

- Student files federal/state quarterly taxes (1040ES/540ES) or student increases withholding on other salaried income
- Student receives no Wage and Tax Statement (W-2) from UAB
- Fellowships are exempt from FICA (social security tax)
- Student positively reports taxable amount as "SCH" on 1040EZ/1040A/1040 (Refer to the "Fellowship and Scholarship Grants" instructions for Line 1, Wages (1040EZ) or Line 7, Wages (1040A) or Line 7, (1040)).

### **Graduate Student Assistantship**

Awards with monthly salary payments, usually the funding source is some sort of research grant.

***Stipend/Salary Awards:*** This will be taxable and you will get a Wage and Tax Statement (W-2) from UAB. The fee/tuition payments provided by the assistantship are not taxable and not reported by the University as income on a W-2 or 1099 Form.

***Tax Withholding Form:*** At UAB, you will complete a "W-4" form to instruct Payroll how much in Federal and State Income Tax should be withheld from each paycheck. (Note: Only the top copy of the W-4 needs to be submitted to Payroll; the attached worksheets are designed to assist you in determining the number of exemptions to claim). Taxes are withheld based on marital status and the number of exemptions claimed on the W-4. Single students generally file as single, claiming 1 allowance (because they will file their Federal/State income tax forms as "single" with "1" allowance/exemption). The lower the number of allowances or exemptions claimed (0, 1, 2, etc.), the more taxes withheld. Claiming "0" allowance has more withheld than "1", claiming "1" allowance has more withheld than "2", etc. You can submit to your employing department a revised W-4 form to change the amount of withholding at any time.

### **BRIEF OVERVIEW OF UAB Assistantships**

For your salary part of your payments:

- Student completes W-4 for federal/state tax withholding
- Salary subject to Student FICA (social security) if not registered in a minimum of 3 units.
- Student receives UAB W-2 for filing of tax returns

## Frequently Asked Questions

**Question:** How do I know what kind of graduate student appointment I have?

**Answer:** You should receive a letter from your program director describing the nature of the award. Any time the award changes, the letter should be reissued. If you don't have a letter, ask for one.

**Question:** I am paid on my advisor's research grant, but I am just working on my thesis. Why are taxes being deducted?

**Answer:** You have an assistantship. A research grant is awarded to the university for the purpose of conducting research, not training. Your advisor cannot give you fellowship support from a research grant.

**Question:** I am on an NIH Training Grant. Is this a fellowship or an assistantship?

**Answer:** NIH Training Grants (e.g.T32, T35, T42) are treated like fellowships.

**Question:** Where can I find out tax information?

**Answer:** To help in the preparation of federal taxes, students may wish to consult IRS Publication 970, Tax Benefits for Education: <http://www.irs.gov/publications/p970/index.html>. This useful publication addresses a variety of issues related to graduate students and their tax obligations. Chapter 2 of Publication 505 may also be helpful, which describes who must pay estimated tax. Publication 970, Tax Benefits for Education: (<http://www.irs.gov/publications/p505/>). Yearly 1098/1099 information can be accessed through [www.tra.vangent.com](http://www.tra.vangent.com).

**Question:** Are fellowships taxable by the State of Alabama?

**Answer:** Your fellowship is not taxable by the State of Alabama. It is recommended that you visit the following web site: <http://financialaffairs.uab.edu/content.asp?id=297463>

**Question:** Is there a student recommended contact person who can assist in preparing my tax returns?

**Answer:** Yes. The contact information is as follows:

Sara "Sally" Mask  
H&R Block  
34 Green Springs Plz  
Birmingham, AL 35209  
205-945-1529  
[sara.mask@tax.hrblock.com](mailto:sara.mask@tax.hrblock.com)

## **A Tax Guide for the MSTP Student**

Sotirios Keros, MD, Ph.D.

UAB class of 2006

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Calculating and paying Federal (IRS) and State income taxes can be challenging for the one who is new to actually having income to pay taxes on. But the issue can get particularly involved for those in the MSTP. And in Alabama, it's even trickier, since Alabama treats certain types of stipends differently than the IRS for determining taxable income. This "brief" guide is a supplement to what has been put together by Dr. Lorenz. Many items here overlap and repeat what Dr. Lorenz has written.

This document is NOT intended to be a complete, step by step protocol (although I wish such a thing were possible!) But after reading both documents, I hope that you will have 95% of the info you need to understand your taxes while in the MSTP and that you will have the tools and vocabulary to figure out the remaining 5%.

Note, you can easily find IRS documents, forms and instructions by google-ing "IRS" and the publication number, i.e. "IRS 1040" should take you right to the IRS site where you can get a .pdf copy of a 1040 form.

Disclaimer! Do NOT assume anything I have written is complete or accurate. Things change year to year, and despite my years of experience in preparing taxes, I do NOT claim to know everything. So please verify this information by reading the appropriate IRS documents. Also keep in mind that this advice is independent of the MSTP. I am personally writing this as an aid to you. And while I may ask the MSTP's help in getting this document to you, it is not vetted by the MSTP, and UAB and the MSTP will take no responsibility for what is written herein.

There are many different types of taxes: sales taxes, use taxes, real estate taxes, personal property taxes, etc. But as far as your stipend is concerned there are only two types of taxes that apply. INCOME taxes, and PAYROLL taxes. Payroll taxes are taxes that are generally assessed on ALL of your income below (for 2006) about \$97,000. Payroll taxes are also known as "FICA", of which there are two: 1) Social Security Insurance, and 2) Medicare/Medicaid. Due to a special ruling and the special situation graduate students are in, our scholarships and stipends are EXEMPT from all payroll taxes. So you do not owe any SS or Medicare/Medicaid on your stipend. (Warning, a very long aside follows, in smaller print...skip ahead if you must)

That essentially saves you about 7.5% on every dollar we are paid. But you must keep in mind that future Social Security payments we will receive WILL BE LOWER than they could be, because Social Security payments are roughly based on your last 40 years of earnings subject to payroll taxes. I.e. I'm 35 years old, and I have no contributions yet to Social Security. At age 67 I will be eligible for my "full" benefits, which will only be based on 32 years of earnings. Those years of "zero" earnings will bring down the amount I am paid monthly. Should I die at 60, then

it's been a "good deal", since I was spared the taxes as an MSTP and would never have earned any SS anyway. Should I die at 97, then I will have had 30 years of SS payments (from 67 to 97 years old) that are reduced by those "zero" years. Another thing to understand is that SS is an insurance program, where in addition to paying you when you are "old", you are covered NOW for disability, should you become disabled while working. The amount of disability insurance received for the amount one is charged is quite high...that is, it's a great deal compared to buying private disability insurance. While an MSTP you will not be paying payroll taxes so you are NOT covered by any disability insurance (assuming you don't have previous income where you have paid payroll taxes). Although morbid, you need to understand that should you get hit by a car while crossing University Ave and be unable to work in any job again, you are not insured, while essentially every other UAB employee would receive Social Security disability payments for the duration of the disability.

Since payroll taxes don't apply to the MSTP student, we are left with only income taxes.

### **What counts as taxable income by the IRS?**

The short answer is ANY money that comes from UAB that goes into your pocket that you do not then use for 1) Tuition or 2) REQUIRED school fees and books, is taxable. Since your tuition and fees are paid by the MSTP BEFORE they show up in your check, essentially your entire stipend is taxable income. Now, the IRS clearly spells out certain items which ARE taxable to students. Those examples include reimbursement for books, reimbursement for travel, and health insurance. This is clearly explained in IRS Publication 970. Even though health insurance is required for attending classes at UAB, it is specifically addressed by the IRS and is TAXABLE if UAB pays for it (see page 34 of Pub 970). In the time since I have left UAB, I understand that UAB will be changing the method used to pay your health insurance such that it will likely appear as excess income on your paychecks which they then subtract away, making it harder for you to "forget" to claim your health insurance on your taxes. I must emphasize that the tax treatment of paid health insurance is considered by some to be controversial, and I would not take my comments as 100% accurate.

Note, that although your mentor or department may "require" you to attend that scientific meeting in DC, San Diego or the Bahamas, you STILL will owe income taxes on the money paid to offset your costs of going on the trip (hotel, airfare, meals, etc...see section 1 of Pub 970). I'm not sure I can find another grad student that actually reports and pays taxes on that money, but I just needed to warn you. Because, like your health insurance, UAB may change the method used to pay you such that the IRS will see those payments even if you don't report it on your own.

For Federal/IRS purposes, it does not matter what your stipend is called. Regardless of whether it is a scholarship, an assistantship, a fellowship, etc, it's all the same to them as long as you are a student and receive money in excess of tuition and required fees. As I will explain later, for FEDERAL purposes, your classification by UAB and "who actually pays you" (i.e. which grant) affects only how you REPORT and PAY your taxes, but NOT what you will owe. But for

ALABAMA income taxes, there IS a difference in what you owe, which you can read about below.

### **What counts as taxable income by Alabama?**

In general, states generally count as income everything that the IRS does. But for reasons unknown, Alabama taxes ASSISTANTships like regular income, but traineeships and Fellowships are EXEMPT from Alabama income taxes. You will not find this explicitly stated in any Alabama tax document, but it has been settled in Alabama "Revenue Court". So you will save roughly 5% (the Alabama tax rate) when not on an assistantship. Anyway see below for the ways in which you can be classified by UAB which affects how you report and pay taxes.

### **What about "local" taxes?**

Local taxes are income taxes assessed by the city of Birmingham and Jefferson County. Together they amount to 1.5% of your income. They are taken directly "off the top" of your stipend. That is, you don't have to do anything to file or pay your taxes. If you owe them, they've already been taken out of your check. You don't have to file a city or county tax return. If I recall correctly, if you owe Alabama taxes then local taxes will be automatically paid from each paycheck. But if you do not owe Alabama taxes (i.e. you are on a traineeship or fellowship) then local taxes will not be subtracted....

### **What's the difference between "withholding" taxes, "paying" taxes, and "owing" taxes?**

This is a good time to mention that when you have Federal or State taxes withheld from your paycheck you MAY OR MAY NOT ACTUALLY OWE that money. Until you file your taxes, neither you nor the government knows how much you owe in taxes. Tax withholding is supposed to be your best guess at what you might owe, and then you "square up" in April. If you paid more than you owe, you get a refund. If you paid too little, you have to send a check. If you paid WAY too little, you MAY owe a penalty-More on this later. The reason I brought this up now is to distinguish that LOCAL taxes that come out of your paycheck ARE what you owe. You don't file later. In a sense, your paystub IS your tax return and the local taxes get paid on the spot. But for Federal and State taxes, any money that is withheld from your paycheck is calculated based on the guidelines that YOU provide to UAB (via a W-4 form). JUST BECAUSE MONEY IS WITHHELD FROM YOUR TAXES DOES NOT MEAN THAT YOU OWE THAT AMOUNT. BUT ALSO REMEMBER THAT JUST BECAUSE NOTHING IS WITHHELD FROM YOUR PAYCHECK IT DOES NOT MEAN THAT YOU DON'T OWE. It simply means that you are responsible for getting the IRS its money and UAB will not act as the middle man. This is covered rather well in the document provided by Dr. Lorenz.

### **What will my total taxes be when I finally do file?**

I can only cover the most basic of instances here, namely that of a non-married student, no children, with only MSTP income, and no significant tax deductions. Let's start with Federal

taxes. Follow along with a printed copy of form 1040. I have provided a sample 1040 form you can use. You may be eligible to use simpler forms like the 1040A, or the 1040 EZ; the 1040 just has more lines, most of which you skip and ignore.

MSTP students are NOT eligible for either the Lifetime Learning Credits or the Hope Education Credits.

## **Federal Taxes**

Assuming that you've been in the MSTP for the whole tax year (i.e. 2nd year students and up) then your income for the year will be your stipend (\$23,000 I believe for 2007, but of course the increase came mid-year 2006 so that your total for 2006 will be less...). Regardless of your status as a student (fellowship, assistantship, etc) you put your income, \$23,000 on line 7. If you were a student for part of the year, then, of course, your income will be less. Your total monies from the MSTP stipend goes on line 7 whether you received a W-2 or not. The amount on line 7 is going to be the total you got paid for the year in stipend, which should be shown on your last paystub of the year, the December check. Now this is where the options can diverge. If you received a W-2 for your entire stipend amount (i.e. your amount on your W-2 matches the "year to date" amount on your paystub), you do nothing further. But if you DID NOT receive a W-2, or if the W-2 only show a PORTION of your stipend for the year then you must indicate on line 7 HOW MUCH of the \$23,000 (or whatever) that you placed in line 7 is actually from stipend received that is NOT on a W-2. For example, for most of you in the labs, the MSTP pays for part of your stipend, and the mentor pays the rest. In this case, only your mentor's contribution will be reported on a W-2. For the sake of illustration, let's say your mentor paid \$13,000 of the stipend, and the MSTP program paid the rest. You would then receive a W-2 in the amount of \$13,000. But your TOTAL goes on line 7 (\$23,000) and then you must write in, to the left of the "\$23,000" the amount that was NOT reported on a W-2. You do this by simply handwriting "SCH \$10,000" there on "dots" to the left. The SCH stands for scholarship or course. What the IRS wants to know is what amount of line 7 they should NOT expect to see a W-2 for. That is, in most cases for most people, line 7 is simply the addition of all their W-2s. But in the case of scholarships, this alerts them NOT to expect line 7 to match your W-2s.

Now, for those who file online, you can't really "write in" anything on the form. But most software allows you to associate "details" with each line, similar to writing it on the form, or attaching a footnote. So add a note/detail/whatever in your tax software that says "SCH \$XX,XXX". If you are following along on the .pdf I filled out, I could not enter any info on the dots, so it's missing in that sample 1040.

Keep in mind that I don't know how UAB is handling health insurance and student health fee payments. They may report this on a W-2, in which case it gets reported on line 7.

Now let's go down the page of the 1040. As you can see, lines 8 to 21 don't likely apply to you. So you just ignore them. But line 21 is where you would list reimbursements for books, travel, and health insurance paid by UAB PROVIDED ITS NOT ALREADY ON THE W-2. Total up the lines

and this goes on line 22. I'm not going to include any "other income" for this illustration. You can then see that lines 23 to 35 likely don't apply to you. So leave them blank (blanks are the same as zeros) and you end up with \$23,000 on line 37, which carried to line 38.

On line 40 you take the "standard deduction" which is available to every tax filer. The amount differs based on your filing status. But for single folks it's \$5150 for 2006, so enter this amount here. Of course, you MAY OPT to take an "itemized deduction" instead and use it if it exceeds \$5150. Look up "schedule A" which deals with itemized deductions so you can see what types of items are deductible. But in 99% of the cases with MSTP students, the standard deduction exceeds the itemized.

Line 41 is the standard deduction deducted from your income, for a total of \$17,850.

Line 42 is where you get to account for the number of "dependents" you have. In most cases, the number is "1", you depend on yourself. If you are married and filing jointly, this would be "2". If you are married with 3 children, this could be "5". But keep in mind that some parents will claim their post-college children as dependents. If you claim yourself as a dependent AND your parents ALSO claim you as a dependent, then someone is going to be in trouble. Verify with your parents that they are not claiming you as a dependent before you claim yourself. I think they are only allowed to claim you up until age 24 (not positive about this) and there are other rules. But talk to them first. Anyway, each dependent allows you to subtract \$3300 from your income, so your net "taxable income" on line 43 is now \$14550. In order to figure out your tax due to the IRS, go to page 67 of the 1040 Instructions and use the tax tables. In this case, the federal tax on your income is \$1794. The rest of the 1040 is self-explanatory.

The IRS expect to be paid this amount by April 15 through a combination of three ways 1) direct withholding from your paycheck 2) checks mailed to them quarterly as estimated payments and 3) a check mailed with your tax return when you file. In general though, the US tax system is a "pay as you go" system, where the IRS expects to receive taxes from you as you earn the income. So don't expect to be allowed to wait until April to pay all of your taxes, or you will be penalized. Dr. Lorenz covers this a bit in her tax document. I'll also discuss it a little more here. But please read form 1040-ES which covers paying estimated taxes to avoid under-withholding penalties.

### **How do I pay?**

As I mentioned you pay your taxes through a combination of telling UAB how much to withhold from your paycheck, estimated taxes you mail to the IRS, and a check you mail when you file. HERE ARE THE (simplified) RULES YOU NEED TO KNOW in order to avoid penalties (found in form 1040-ES).

**RULE #1:** If you will owe less than \$1000 when you file, NO PROBLEM. You simply mail the IRS a check when you file. For example, first year students who have income for half a year will owe less than \$1000, so there is no penalty for not withholding taxes or making estimated

payments. So anytime you will owe LESS THAN \$1000 when you file, you will pay no penalties. Keep in mind that when I say “owe” in this case, I DON’T mean your total tax as shown on line 63 of the 1040. I mean the amount of line 63 that the IRS has NOT YET GOTTEN WHEN YOU FILE, i.e. line 76. Of course, if your total tax is less than \$1000, you cannot owe more than that. That means that all you have to do to avoid penalties is have taxes withheld to get you within \$1000 by the time you do your taxes. Alternately, you can pay estimated taxes to get you within \$1000. But if you simply don’t pay any taxes and then find at tax time you owe \$1794, then you will have to pay some penalty.

**RULE #2:** IF YOU OWE MORE THAN \$1000 come tax time, as shown on line 76, then to avoid penalties you must have paid, via a combination of estimated taxes and withholding, AT LEAST AS MUCH AS YOU PAID THE PREVIOUS TAX YEAR. This rule generally only comes into effect if you get a big raise, win the lottery, etc. It simply means that in any given year, if you paid estimated taxes and/or withheld as least as much as you did last year, you are safe and owe no penalties, whether you owe \$1100 or \$11 Million.

In general, rule #1 is what you want to shoot for...get your payments within \$1000 and avoid all potential penalties.

The reason this is important to you is that depending on how you are classified by UAB, you may not be ABLE to have taxes withheld. For example, anyone paid solely through MSTP funds will not be eligible for having taxes taken directly out of their paycheck, so must make estimated taxes to avoid penalties. Estimated taxes have 4 due dates, and you must pay roughly 25% of your tax liability at each due date. What you need to do is estimate how much you will owe in taxes for the year, and divide by 4, and pay this amount quarterly (very clearly explained how to do this on form 1040-ES). Remember, you only need to get within \$1000. And if you can do this via withholding, then you don’t need to pay estimated taxes at all.

## **Alabama Taxes**

Look at a copy of Alabama form 40 and follow along. I could not get a filled-out sample form to print.

The basics in reporting and paying state taxes are the same as federal taxes. But there is one notable difference. Alabama only taxes the portion of your stipend that shows up on a W-2. It doesn’t make any sense, but it’s to your benefit so accept it. But REPORTING this difference can be confusing. Basically, in line 6 of form 40 you report ONLY THE AMOUNT that is reported to you on a W-2. From our example above, this is \$13000. You then follow the instructions for the form as written. Note, if you did not receive a W-2, your Alabama income is ZERO and you owe no Alabama income tax on your stipend.

But pay attention...you MUST tell Alabama WHY the amount you report to them differs from the amount on your FEDERAL 1040. That is because the IRS supplies a copy of your 1040 to the states, so that they can be sure everything matches. Therefore, you must make sure you fill out

“Part IV” on Page 2 of form 40. Here on line 6 you write in the amounts from your Federal tax form, and then you get to explain why you claimed less for Alabama. Essentially, you have to tell them you reported \$10,000 less to them, because Alabama does not tax the non W-2 portion of the scholarship. So on line 6 I write is “Scholarship not taxable by AL” and then the amount “\$10,000” in the given space. Just make sure the amount you place on line 6 of Part IV, when added to line 6 of part I, adds up to the total amount you reported on your IRS 1040 on line 7. This means that even if you have no taxable income for Alabama, you must still file state taxes, because otherwise Alabama will assume you just neglected to pay them, since they’ll get a copy of your 1040 which shows federal tax due.

Other issues such as withholding and estimated taxes are the same. That is, Alabama wants its money as you go. In order to avoid STATE penalties you must be within \$100. This can be very hard to estimate in advance, so be careful. One almost always overpays state taxes and gets a refund. Or, you can avoid the penalty by withholding at least as much as you owed the previous year.

### **Final notes**

There is no way for me to possibly cover everyone’s scenario and answer everyone’s questions. But I hope this gives you some additional insight into the US tax system as it pertains to MSTP students. If you have any questions at all, please do not hesitate to contact me. I will make every attempt to answer your specific question. Also, if anyone finds any errors, or feel something needs additional clarification, let me know and I can update/modify this document.

Good luck!

Sotirios Keros, MD, Ph.D.  
UAB class of 2006  
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## From UAB Payroll Services

website: <http://financialaffairs.uab.edu/content.asp?id=343657>

The term "trainee" payments is used by the University, but defined by the IRS as a "fellowship" payment. Fellowship payments have specific tax reporting requirements for federal and Alabama state filings. The following are points that you should consider when completing the required tax documents. Trainee/Fellowship payments are not reported to any tax agency.

Exception: Trainee/Fellowship payments made to a NRA with NRA Tax ramifications are subject to 1042S reporting requirements. NRA Tax is identified on your payslip.

Exception: Trainee/Fellowship payments made through UAB Payroll Services to UAB students are reported on the 1098T form. This information is reported to the IRS.

Trainee/Fellowship payments made to US citizens or RA taxed as US citizens are reportable to the federal government.

Trainees in this category should retain their 31DEC20XX payslip for a record of the year-to-date information. Copies of payslips may be accessed through Oracle Self Service. Instructions for accessing this information are available online ([http://www.uab.edu/adminsystems/documentation/hr/self\\_service/doc\\_payslip.pdf](http://www.uab.edu/adminsystems/documentation/hr/self_service/doc_payslip.pdf))

Assistance in determining how to report these payments is available in most online filing software. The typical question and explanation, a copy of which is from the Turbo Tax software program, is below.

Also included is the information on where to report fellowship payments on the 1040 Internal Revenue Service Forms as defined by IRS publication 970.



	2007 Amount	2008 Amount	
1099-SA, MSA, HSA <a href="#">Learn More</a>		(not visited)	<a href="#">Start</a>
Gambling Winnings <a href="#">Learn More</a>	\$0	(not visited)	<a href="#">Start</a>
Alimony Received <a href="#">Learn More</a>	\$0	(not visited)	<a href="#">Start</a>
Jury Duty <a href="#">Learn More</a>		(not visited)	<a href="#">Start</a>
Foreign Earned Income <a href="#">Learn More</a>		(not visited)	<a href="#">Start</a>
Child's Income (Under Age 24) <a href="#">Learn More</a>	\$0	(not visited)	<a href="#">Start</a>
Scholarships <a href="#">Learn More</a>	\$0	(not visited)	<a href="#">Start</a>
Miscellaneous Income, 1099-A, 1099-C <a href="#">Learn More</a>	\$0	(not visited)	<a href="#">Start</a>

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[Federal Review](#)
[State Taxes](#)
[Print & File](#)
[Tools](#)

[Income](#)
[Deductions and Credits](#)
[Other](#)

### Taxable Scholarships and Fellowships

If you are a candidate for a degree, then scholarship, fellowship, and grant income are **not taxable** as long as the funds are used for tuition, fees, books, supplies, or equipment.

If you are **not** a candidate for a degree, then scholarship, fellowship, and grant income are **taxable** and should be reported here.

Enter the amount of **taxable** scholarship, fellowship, and grant income you received. [Explain This](#)

**Note:** Do not enter payments you already reported elsewhere on your return (e.g., on Form W-2 or 1099-G).

Taxable Amount

[← Back](#)
[Continue](#)

### How To Report

How you report any taxable scholarship or fellowship income depends on which return you file.

**Form 1040EZ.** If you file Form 1040EZ, report the taxable amount on line 1. If the taxable amount was not reported on Form W-2, enter "SCH" and the taxable amount in the space to the left of line 1.

**Form 1040A.** If you file Form 1040A, report the taxable amount on line 7. If the taxable amount was not reported on Form W-2, enter "SCH" and the taxable amount in the space to the left of line 7.

**Form 1040.** If you file Form 1040, report the taxable amount on line 7. If the taxable amount was not reported on Form W-2, enter "SCH" and the taxable amount on the dotted line next to line 7.

7	Wages, salaries, tips, etc. Attach Form(s) W-2	SCH	\$\$\$
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This information is taken directly from the Alabama Administrative Code (810-3-14-.02 Exclusions from Gross Income) found in detail below. As for reporting the income, the State of Alabama tax form does require disclosure of the payments, but they should be qualified as scholarship/fellowship payments. The graphic below indicates the line on which the payments should be reported.

Enter amount here and on page 1, line 14.....		2 ●	00
<b>PART IV</b>  <b>General Information</b>  <b>All Taxpayers Must Complete This Section.</b>	1	<b>Residency</b> <input type="checkbox"/> Full Year <input type="checkbox"/> Part Year Check only one box. If you were a part-year resident of Alabama during 2007, indicate your period of residence: From _____ 2007 through _____ 2007. Total months _____	
	2	Did you file an Alabama income tax return for the year 2006? <input type="checkbox"/> Yes <input type="checkbox"/> No	
	3	If no, state reason.	
	4	Give name and address of present employer(s). Yours _____ Your Spouse's _____	
	5	Enter the Federal Adjusted Gross Income ●\$ _____ and Federal Taxable Income ●\$ _____ as reported on your 2007 Federal Individual Income Tax Return.	
	6	Do you have income which is reported on your Federal return, but not reported on your Alabama return (other than your state tax refund)? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, enter source(s) and amount(s) below: (other than state income tax refund)	
		Source _____ Amount ●\$ _____ 00 Source _____ Amount ●\$ _____ 00	
7	Do you have income included in this return from a grantor trust? <input type="checkbox"/> Yes <input type="checkbox"/> No		

This information is taken directly from the Alabama Administrative Code ([810-3-14-02 Exclusions from Gross Income](#)).

(1) Items which are excluded from gross income are listed in § 40-18-14(3), Code of Alabama 1975, as follows:

(a) Amounts received under life insurance policies and contracts paid by reason of the death of the insured, in accordance with 26 U.S.C. § 101.

(b) Amounts received, other than amounts paid by reason of the death of the insured, under life insurance, endowment or annuity contracts determined in accordance with 26 U.S.C. § 72.

(c) The value of property acquired by gift, bequest, devise, or descent, in accordance with 26 U.S.C. § 102 - the income from such property shall be included in gross income.

1. Gross income does not include a fellowship or grant that is an outright gift with no obligation on the part of the recipient. Payments to an individual as a scholarship at an educational institution or as a fellowship grant are excluded from the gross income of the student to the extent that services are not required of the student in order to receive the payments. The value of contributed services and accommodations are also excluded from gross income. If there is a condition that a person must teach or enter into employment, payments are not gifts.

2. Payments for teaching, research, or other services in the nature of part-time employment required as a condition to receiving the scholarship or fellowship grant are not exempt and should be included in gross income.

3. Prizes, awards, and scholarships are not specifically addressed by Alabama income tax law. The Department will look to 26 U.S.C. § 74, Prizes and Awards, and 26 U.S.C. § 117, Qualified Scholarships, as guidance to determine whether specific prizes, awards, and scholarships are excluded from gross income.

(d) Interest upon obligations of the United States or its possessions; or securities issued under provisions of the Federal Farm Loan Act of July 18, 1916. Examples of exempt obligations include U.S. Savings Bonds, U.S. Treasury Notes or Bills, obligations of the Bank for Cooperatives, Federal Land Banks, Federal Intermediate Credit Banks, Federal Home Loan Banks, Productions Credit Associations, Federal Financing Bank, and the Tennessee Valley Authority. Interest received from the United States government earned on other than investment obligations, such as interest on tax refunds, is subject to Alabama income tax and should be included in gross income.

(e) Amounts received which are excludable from gross income under 26 U.S.C. § 104, relating to compensation for injuries or sickness.

(f) Amounts received which are excludable from gross income under 26 U.S.C. § 105, relating to amounts received from accident or health plans.

(g) Interest on obligations of the State of Alabama and any county, municipality, or other political subdivision thereof. It should be noted that interest on obligations of other states and political subdivisions thereof is taxable.

(h) The rental value of a parsonage provided to a minister of the gospel, to the extent excludable under 26 U.S.C. § 107.

(i) Income from discharge of indebtedness to the extent allowed by 26 U.S.C. § 108, with the exception that the reductions in tax attributes required by 26 U.S.C. § 108 shall be applied only to the net operating losses determined under Alabama income tax law and to the basis of depreciable property. The basis reductions of depreciable property shall not exceed the basis reductions for federal income tax purposes. All other tax attribute reductions required by 26 U.S.C. § 108 shall not be recognized.

(j) Gain from the sale of a personal residence to the extent excludable for federal income tax purposes under 26 U.S.C. § 121.

(k) Contributions made by an employer on behalf of an employee to a trust which is a part of a qualified cash or deferred arrangement, as defined in 26 U.S.C. § 401(k)(2) or 5 U.S.C. § 8437, subject to the limitations of 26 U.S.C. § 402(g).

(l) Contributions, made by an employer for an employee for an annuity contract, which would be excludable from the gross income of the employee, in accordance with 26 U.S.C. § 403(b), subject to the limitations of 26 U.S.C. § 402(g).

(m) Amounts excludable in accordance with 26 U.S.C. § 125, relating to cafeteria plans.

(n) Amounts excludable in accordance with 26 U.S.C. § 132, relating to certain fringe benefits.

(o) Amounts excludable in accordance with 26 U.S.C. § 129, relating to dependent care expenses.

(2) In addition, items of income which federal law prohibits the states from taxing, or which are otherwise exempt from taxation by the Code of Alabama 1975, are excluded from gross income. For example, the daily subsistence allowance paid to state law enforcement officers pursuant to § 36-21-2, Code of Alabama 1975, is excluded from gross income. Also, federal law exempts from taxation allowances for quarters, subsistence, uniforms and travel furnished military personnel by the United States Government.

(3) Other items of income are exempt:

(a) Income of foreign missionaries - see § 40-18-2.1, Code of Alabama 1975.

(b) Certain retirement allowances, net income realized from a financial business, personal exemptions and dependent exemptions - see § 40-18-19.

(c) Certain severance payments - see § 40-18-19.1.

(d) Military retirement benefits - see § 40-18-20.

(4) For interpretation of federal statutes adopted by the Alabama legislature, see Rule 810-3-1.1-.01, Operating Rules.

(5) The provisions of the federal "Taxpayer Relief Act of 1997" which were adopted by Alabama Act 98-502 have the same effective date for Alabama income tax purposes as they do for federal income tax purposes.

Authors: Ann F. Winborne, CPA, Ed Cutter, CPA, John Danziger, and Rebecca S. Whisenant

Authority: §§ 40-2A-7(a)(5) and 40-18-14, Code of Alabama 1975

History: Adopted through APA October 1, 1982. Amended: Filed July 27, 1988. Amended: Filed May 15, 1992, effective June 19, 1992. Repealed and New: Filed May 3, 2000, effective June 7, 2000.





CORRECTED

FILER'S name, street address, city, state, ZIP code, and telephone number		1 Payments received for qualified tuition and related expenses \$	OMB No. 1545-1574 <b>2011</b> Form <b>1098-T</b>	<b>Tuition Statement</b>
		2 Amounts billed for qualified tuition and related expenses \$		
FILER'S federal identification no.	STUDENT'S social security number	3 If this box is checked, your educational institution has changed its reporting method for 2011 <input type="checkbox"/>		<b>Copy B For Student</b>  This is important tax information and is being furnished to the Internal Revenue Service.
STUDENT'S name		4 Adjustments made for a prior year \$	5 Scholarships or grants \$	
Street address (including apt. no.)		6 Adjustments to scholarships or grants for a prior year \$	7 Checked if the amount in box 1 or 2 includes amounts for an academic period beginning January - March 2012 <input type="checkbox"/>	
City, state, and ZIP code				
Service Provider/Acct. No. (see instr.)	8 Checked if at least half-time student <input type="checkbox"/>	9 Checked if a graduate student <input type="checkbox"/>	10 Ins. contract reimb./refund \$	
Form <b>1098-T</b>		(keep for your records)	Department of the Treasury - Internal Revenue Service	

Note that in some cases the amount of tuition paid on your behalf is added to the taxable scholarships/grants box, which raises your taxable stipend several thousand dollars. According to Student Accounting, this amount is reported to the IRS. In this case, if you ignore the information on the 1098-T and later are audited, the amount of money reported to the IRS and the amount on the 1098-T will not match what you reported on your tax forms.

However, Ms. Williamson from the IRS (IRS ID: 5906648) said if, and only if, the amount paid for your tuition is rolled into the amount listed in box 5 on the 1098-T, you have 2 choices. 1) you can list the full amount in box 5 as income, and later deduct the amount in box 2 as amount billed for qualified tuition (this is because the IRS sees this as amount you paid, even if it is paid on your behalf by a program, parent, etc) 2) you can subtract the amount of scholarship money used to pay tuition (should be the amount in Box 2, but you can get a printout from Student accounting to be sure) from the total amount in box 5, and report that as your total taxable income (at least from UAB).

Either choice is valid. However, you cannot do both (subtract the tuition amount from box 5, and then claim it later as tuition paid). You can only choose one way. But she did say whichever one gets you the better refund is okay!

## **Appendix XI: Potential Funding Sources for MD/PhD Students**

Two categories of possible funding sources for MD/PhD students are listed below: private, non-federal sources (List A) and federal sources (List B). Please visit the websites for deadlines, qualifications, and funding applications.

You can also login to the UAB Integrated Research Administration Portal <https://irap.uab.edu/main.asp>  
Click on Find Funding (at the top) to search for additional funding opportunities.

### **LIST A**

#### **American Association of University Women**

<http://www.aauw.org/>

#### **American Chemical Society, Division of Analytical Chemistry Graduate Fellowships**

[http://www.southwestern.edu/departments/chemistry/acsggraduatefellowship/ACS\\_DAC\\_site/American Chemical Society Division of Analytical Chemistry Graduate Fellowship Home Page.html](http://www.southwestern.edu/departments/chemistry/acsggraduatefellowship/ACS_DAC_site/American_Chemical_Society_Division_of_Analytical_Chemistry_Graduate_Fellowship_Home_Page.html)

#### **American Heart Association Regional Affiliates Pre-doctoral Fellowship**

<http://www.heart.org/HEARTORG/>

or [http://my.americanheart.org/professional/Research/FundingOpportunities/Funding-Opportunities UCM 316909 SubHomePage.jsp](http://my.americanheart.org/professional/Research/FundingOpportunities/Funding-Opportunities_UCM_316909_SubHomePage.jsp)

#### **American Society for Microbiology Robert Watkins Graduate Fellowship for Minorities**

<http://www.asm.org> or <http://www.asm.org/index.php/fellowships-2/25-education/students/164-asm-robert-d-watkins-graduate-research-fellowship>

#### **Community of Science Funding Opportunities Database**

<http://fundingopps2.cos.com/>

#### **National Science Foundation**

[http://www.nsf.gov/funding/education.jsp?fund\\_type=2](http://www.nsf.gov/funding/education.jsp?fund_type=2)

#### **UNCF-Merck Graduate Science Research Dissertation Fellowships**

<http://umsi.uncf.org/>

#### **Department of Defense**

<http://cdmrp.army.mil/>

## LIST B

**Note:** These applications are submitted electronically through Grants.gov. via UAB's Office of Sponsored Programs. See the OSP Review Plan for deadline details: <http://www.uab.edu/osp/>

**Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral MD/PhD and Other Dual Doctoral Degree Fellows (Parent F30)  
(PA-14-150)**

<http://grants.nih.gov/grants/guide/pa-files/PA-14-150.html>

**Due Dates:** April 8, August 8, December 8

Use this link to find contacts, submission dates and special interests/instructions for the various institutes: [http://grants.nih.gov/grants/guide/contacts/parent\\_F30.html](http://grants.nih.gov/grants/guide/contacts/parent_F30.html)

**Ruth L. Kirschstein National Research Service Awards for Individual Pre-doctoral Fellowship to Promote Diversity in Health-Related Research (Parent F31-Diversity)  
(PA-14-148)**

<http://grants.nih.gov/grants/guide/pa-files/PA-14-148.html>

**Due Dates:** April 13, August 13, December 13

Use this link to find contacts, submission dates and special interests/instructions for the various institutes: [http://grants.nih.gov/grants/guide/contacts/parent\\_F31\\_diversity.html](http://grants.nih.gov/grants/guide/contacts/parent_F31_diversity.html)

**NINDS Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellows in MD-PhD programs (F31) (PAR-13-127)**

National Institute of Neurological Disorders and Stroke

<http://grants.nih.gov/grants/guide/pa-files/PAR-13-127.html>

**Note:** This is a new funding category for 2010. The deadlines are the same as the F30. However, the new F31 from NINDS is different in the following ways:

1. It is meant to support students earlier in their career - The hope is that students will apply as early as during the second year of medical school (after they have identified a research laboratory). The focus is supposed to be on creative ideas and the best training/mentoring environments. It is supposed to reduce the need for preliminary data.
2. It could allow a student to work in a laboratory that might otherwise not have funding for a student (since you can apply for the funding before you actually go into the lab)
3. This mechanism **will not** support students during their medical school years - but will fund for the entire graduate years (up to 5).
4. The actual application appears to be slightly different - with the Research Strategy section not exceeding 6 pages.

## UASOM MSS-AOA USMLE STEP 1 ARMAMENTARIUM

[How to Use this Step 1 Armamentarium Document](#)

[Advice for Getting the Most Out of First Aid for Step 1](#)

[Specific Study Strategies to Consider](#)

[List of Sources by Discipline](#)

[Question Banks](#)

[Practice Exams](#)

[Pre-Organized Study Plans for Purchase](#)

[Study Schedule](#)

[How do I know if I'm ready \(or not\) to take Step 1?](#)

[What are some common problems that students have during the dedicated study period?](#)

### **How to Use this Step 1 Armamentarium Document**

1. We wrote this document with a goal of exposing you to a **wide variety of study resources and strategies** available for Step 1 preparation -- i.e., to offer you an armamentarium of excellent ways to prepare for Step 1.
2. This document was **not made to tell you the single best strategy** for you personally. We believe it's very important for you to create an individualized strategy that works best for you. If you have any questions, MSS can provide fantastic resources and provide excellent data and evidence to help you create the best study plan for you.
3. We hope that by reading these six pages, you will become aware of the many different options available to you. We want you to be a **well-informed consumer** as you prepare to make a study plan for Step 1, and we want you to be well-informed if you need to make changes to your study plans within your dedicated study period.
4. We also want you to be aware of **common "roadblocks"** that students face while studying for Step 1. We want you to be able to anticipate these problems so that you can respond quickly and strategically -- and ensure that you are **always closing** gaps in your knowledge during your study period.
5. Dropbox Hosting Relevant Materials: (<https://goo.gl/fzml7w>)

### **How Should I Get Advice?**

1. This survey from the University of Nebraska (<http://goo.gl/lsuQWT>) gives you a fine perspective of how medical students view different Step 1 resources. It also shows what resources have a broad consensus of support (First Aid, USMLE World a.k.a. "UWORLD", Pathoma).
2. We think you should take all advice with a grain of salt. Everyone's strategy will be a little different. **There is no level 1, randomized, controlled evidence to prove what is the "best" study strategy.**
3. However, there are strategies that work well for a large number of students (e.g., [First Aid](#), [Pathoma](#), and [UWORLD QBank](#)), and there are also many strategies that students find less valuable.
4. You've been a student for a long time. You know what works for you. You know when you're struggling. You should listen to any advice critically, and you should use data during your study period (ie, UWORLD percentages or NBME practice exams) to assess and guide your progress.
5. If you feel at any time that you are falling behind, it is **always best to ask the MSS staff** for help sooner rather than later.

### **Advice for Getting the Most Out of First Aid for Step 1**

1. Get it three-hole punched.
  - a. The UPS Store, Fedex Kinkos, or other office stores will remove the binding and three-hole punch your [First Aid](#) so that you can keep it in a three-ring binder for a very reasonable price (less than \$5).
  - b. This is a great way to extend the lifespan of your book -- and it also lets you add extra sheets of notes into the appropriate section of your book.
2. Annotate other resources?
  - a. It's a common practice to use First Aid as a "repository" of information throughout the study process. We would recommend consolidating sources during the course of your studying. For example, many students add Pathoma notes into their [First Aid](#) text, as opposed to annotating the Pathoma text.
  - b. If you have already annotated all of Pathoma however, it may be inefficient and an unwise use of time to recopy everything into First Aid. Your decision should be based on your learning type.
3. Use Errata?
  - a. Many recommend accessing the errata for First Aid when it is first released and fully editing your copy of the book to correct any errors.

## Specific Study Strategies to Consider

1. Using a "Writing List"
  - a. There are a lot of questions on Step 1 that require deep understanding and application of knowledge. ([Bloom's Taxonomy Levels 2 - 4](#): Understand, Apply, Analyze).
  - b. However, there are also questions that do not require a deep understanding. These questions would be classified as Taxonomy Level 1 questions (i.e., recall a fact).
  - c. A "writing list" -- i.e., a list of questions and answers can help you to drill in hard-to-remember facts.
  - d. You could use a word document, an Excel spreadsheet, a powerpoint with questions and answers, or note cards to create this resource.
  - e. Here are several examples:
    - i. <https://goo.gl/P9TXbu>, <https://goo.gl/0zL204>, <https://goo.gl/P5QzzR>
2. Using Notecards (handwritten) or a notecard computer software (e.g., <http://ankisrs.net>)
  - a. Flashcards work especially well for topics that require rote memorization (i.e. pharm, micro, cytokines, cancer markers, sympathomimetics, antidotes, etc).
3. Timing the study of specific disciplines within your dedicated study period.
  - a. During your study period, you really have **two competing interests**:
    - i. Do I have enough time to learn the things I need to learn?
    - ii. If I haven't studied a specific topic in a while... will I forget it?
  - b. To address this tension, you will need to create a study plan that ensures that you learn the content without forgetting it all prior to your test day.
  - c. There are many methods to help address this issue:
    - i. Use a writing list so that you can quickly and periodically review hard-to-remember facts.
    - ii. Set aside a window of time each day for a given subject. (For example, spend 30 minutes each day reviewing pharmacology).
    - iii. Use the random setting on UWORLD to ensure that you're being exposed to a wide variety of subjects each day.

## List of Sources by Discipline

1. *Disclaimer:*
  - a. *First Aid for the USMLE Step 1 truly is the ultimate content source. That said, you may need to supplement First Aid with other resources to improve your understanding.*
  - b. *Some of these resources may serve as useful adjuncts to First Aid for weak areas. But, do **NOT** read all of these!*
2. Pathology
  - a. **Pathoma**
  - b. Goljan Rapid Review Pathology (full textbook)
  - c. Goljan Rapid Review High Yield 36-page Document
    - i. <https://www.dropbox.com/s/72yx1i56715a9lw/Goljan-High-Yield.pdf?dl=0>
  - d. Goljan Bootleg Audio Files
    - i. <https://www.dropbox.com/sh/tc4jefschgy4yom/AAA288ECIMk2Lq1fPHcDgkgna?dl=0>
    - ii. Along with the Pathoma videos -- these are great to put on your iPod and listen to in the car or at the rec center.
3. Physiology
  - a. Costanzo, Full Textbook (<http://goo.gl/xeBlxz>)
  - b. Costanzo, BRS Physiology (<http://goo.gl/mo2PjK>)
4. Immunology
  - a. Sompayrac, How the Immune System Works (<http://goo.gl/MX7XB6>)
5. Pharmacology
  - a. Google Spreadsheet Drug Chart (Killian, Sauer, Fryberger) (<https://goo.gl/6Q0Tke>)
    - i. This spreadsheet is a highly comprehensive document that lists Mechanism / Indication / Side Effects for almost all drugs discussed in First Aid or UWORLD.
    - ii. NOTE: Consider downloading this spreadsheet and converting it to note cards using software like ANKI (<http://ankisrs.net>)

6. Biochemistry
  - a. Lippincott Biochemistry
  - b. South Alabama Biochemistry Notes (<https://goo.gl/GzPNEV>)
    - i. You can also find bootleg copies of audio files that accompany these South Alabama notes.
7. Microbiology
  - a. Sketchy Micro (<https://www.sketchymedical.com>)
  - b. Clinical Microbiology Made Ridiculously Simple (<http://goo.gl/SfnrEu>)
8. Anatomy and Embryology
  - a. Conventional wisdom would suggest that the anatomy and embryology discussed in First Aid is sufficient for success on your exam.
  - b. This is largely true. That said, you are likely to see some crazy anatomy questions on your real exam.
  - c. The highest yield anatomy facts are well-covered in First Aid. Hopefully you have a good fund of knowledge from your UAB lectures covering anatomy and embryology during your preclinical time.
  - d. Aside from First Aid and the UWORLD question bank, there are no other sources for Anatomy or Embryology that we would recommend you spend time studying from during your dedicated period.
9. Organ Based Resources
  - a. Online Med: Acid-Base Lectures
  - b. Acid-Base, Fluids, and Electrolytes Made Ridiculously Simple (includes Q&A)
  - c. HY Neuroanatomy

### **Question Banks**

1. UWORLD
  - a. "Best" qbank in terms of reliability, sources, and explanations. Questions are most similar in length and difficulty to actual exam. Strongly recommend completing before sitting for exam. Nearly every medical student will utilize this resource. When approaching questions, skim over things you know the answer to, but review all answer choices for missed questions.
  - b. Take blocks timed. The timing is one of the major issues that students encounter on test day. If you don't get to all the questions, you can't answer them correctly even if you have the knowledge.
  - c. Advice (especially for people who tend to use most of the allotted testing time): As you progress through your dedicated study time, it can be helpful to set an increasingly stringent time allowance for your question blocks. This ensures that even if you slow down on test day, which is likely, you have practiced with a nice built-in time cushion and will be more likely to get to every question when it matters. For example, work towards finishing blocks in 45 minutes rather than 60 minutes.
2. USMLERx
  - a. A good qbank to test fact recall with references to pages from First Aid. Does not mirror some of the more difficult questions that you will encounter on the actual test.
3. Kaplan
  - a. Our advice regarding Kaplan should be interpreted in light of UAB's new provision of Kaplan to students. Although we still believe UWORLD is the superior question bank for Step 1 preparation, we do believe other question banks can provide value for specific content areas. (For example, if you wanted additional Biochemistry prep, and had exhausted UWORLD questions, using Kaplan to drill that content could be useful for you.)
  - b. Overall though, we recommend this qbank the least. In our opinion, this focused too heavily on minutiae (again, in our opinion) and we found the explanations somewhat limited.

### **Practice Exams**

<https://nsas.nbme.org/home>

Cost: \$60 Dollars, Expanded feedback

1. What order to take them in?
  - a. Advice: Be sure to take the newest NBMEs as they most closely resemble the style and length of questions currently in the testing pool. We recommend taking at least 3.
  - b. If you plan ahead for how many you will be taking, you can save the *most* recent ones for closest to test day.
2. When to take them, and how many?
  - a. We believe that you should time your NBME exams to help you achieve your goals.

- b. NBME exams serve **two purposes**:
  - i. You can build knowledge and clarify weak areas.
  - ii. You can get a very good prediction of your actual Step 1 Score.
- c. Because of this, how you time your NBME practice exams should reflect these two goals.
  - i. Some students find that taking one practice exam each 7-10 days is an effective way to track progress.
  - ii. Some prefer to take one very early in the dedicated period (for example, in the first week) to “get an idea of where they stand.”
  - iii. The one thing that we would strongly advise against is this: Do **NOT** wait until a few days before your actual test to take a your first practice NBME exam!
3. Baseline score
  - a. A baseline NBME (utilizing an “old” exam) may be beneficial for tracking improvements and setting a score target at the beginning of the study period.
4. Practice Free 131
  - a. Link: <http://www.usmle.org/practice-materials>
  - b. Become familiar with testing interface, *similar* questions could appear on actual exam (recommend taking 1-2 days before actual test)
5. UWorld Practice Exams
  - a. Could be viewed as additional practice UWorld questions, but score report should not be taken as predictive. Tends to inflate scores.
6. On using a practice exam to “simulate” the test day experience.
  - a. You can use two NBME exams to simulate the test day experience, though this ends up being one extra block of questions. It can be useful to prepare you mentally for an all-day testing experience and help you plan when you would like to schedule your bathroom/snack/stretching breaks.
  - b. If you do this, make sure to take it about a week before your exam. You will be fatigued, and want adequate time to recover fully before your test day.
  - c. A big part of a successful test day is confidence. Each block you take (practice or test day) will contain seemingly impossible questions. Learn to expect several of these obscure topics. When you’re practicing with a Qbank, review those questions carefully so you aren’t fooled again. If you’re simulating an exam (or taking the real thing!), learn to triage and continue. Some students find that the content of Step 1 questions can be just as challenging as the psychology of the test itself. Be prepared for both aspects!

### Pre-Organized Study Plans for Purchase

1. There are several pre-organized study plans for purchase: DIT, Firecracker, and others. Many of these are very quickly evolving programs, and we would not feel comfortable reviewing them as their present iteration could be very different from our past experience. We would recommend consulting with MSS for further advice.

### Study Schedule

1. MSS can be very helpful in creating a study schedule for you. They have a great deal of experience with students in years past, and will be able to give you a great perspective if you’d like advice on your schedule.
2. Examples of study schedules you can find online from students that have been very successful (>260) on Step 1:
  - a. Phlostion: <https://www.dropbox.com/s/r76orsud11m8grq/Phlostion%20-%20USMLE%20Step1%20Experience.pdf?dl=0>
    - i. This source is valuable if for no other reason than the humor of the author’s use of the word micturate.
    - ii. Other reasons this might be valuable: Very detailed thought process, reviews of resources, psychology of the study process and test.
  - b. UFAP: [https://www.reddit.com/r/medicalschoo/comments/2b2oku/272\\_on\\_step\\_1\\_ufap\\_to\\_success/](https://www.reddit.com/r/medicalschoo/comments/2b2oku/272_on_step_1_ufap_to_success/)
    - i. Hilarious acronym. Gives a simple, straightforward study plan and reviews resources. This author is a believer in the value of NBME practice exams.
    - ii. Great line: “[First Aid for the USMLE Step 1] is your Bible. Know it cold, and you will crush Step 1. It’s as simple as that. Every word is important, so now is not the time to be lazy.”
  - c. Temple “Think Twice”: <http://blog.think2x.com/2011/08/31/the-think-twice-strategy-guide-for-usmle-step-1/>
    - i. Has interesting chart showing the percentage of content in supplemental resources that correlates with a given Step 1. Also has tips for maximizing UWORLD.
  - d. MBDTF: [https://www.reddit.com/r/medicalschoo/comments/4aa87r/step\\_1\\_my\\_beautiful\\_dark\\_twisted\\_fantasy/](https://www.reddit.com/r/medicalschoo/comments/4aa87r/step_1_my_beautiful_dark_twisted_fantasy/)
    - i. Kanye West reference? Check. Resource overview? Check. Advice on how to use different resources? Check. Example study schedule? Check.
3. Examples of study schedules that we used:

Student (Learning style)	Main Resources	Additional Resources	Typical Day
Ben (Visual/auditory)	First Aid, Pathoma, UWorld	Sketchy Micro, South AL Biochem, +/- BRS Physiology, +/- Review sessions	8am to 7pm. Focused on 1 organ system (FA + Pathoma). Completed and reviewed 2 or more random, timed UWorld blocks. Watched Sketchy Micro during "study breaks."
Caroline (Visual/writing)	Uworld, First Aid	Sketchy Micro South AL Biochem +/- Review sessions NBME Practice Tests	7am to 9pm. AM: timed, random Uworld block + review. Midday: Focused organ system review (First Aid). PM: 2nd timed, random Uworld block + review. Sketchy Micro during meals/breaks.

### How do I know if I'm ready (or not) to take Step 1?

- Do not ask the imprecise question, "Am I ready to take Step 1?" Instead, ask yourself, "Am I ready to achieve a score of \_\_\_\_\_?"
  - Everyone has different goals, different specialty interests, and different "needs" in terms of his/her Step 1 outcome.
  - You should not make any assumptions about what score you "need" without being very well-informed.
- It's important to be cognizant of your progress throughout the dedicated study period.
  - You should **NOT** be deciding two days before your actual Step 1 exam if you're ready. You should have a good idea every single week of what your progress is, and if you're on track to meet your goals.
  - If you think you're not ready (or that you won't be ready in time), you need to be aware of this several weeks in advance of your actual test date.
- Average your practice test scores.
  - When your practice scores on NBME tests (ideally an average of 3) taken within 2 weeks of your exam date exceed your score goal, you should feel very confident that you can reproduce those performances on your real exam.
- If you want even more data to support your self-assessment, here is a spreadsheet with self-reported UWORLD and NBME practice scores -- and it also includes the student's self-reported Step 1 score: <https://goo.gl/sV3rdH>
  - Disclaimer: This data set is not representative of all U.S. medical students. Its mean is considerably higher.*
  - By exploring this spreadsheet and sorting the scores, you can get a sense of what your practice scores might predict in terms of your actual test day.
  - If you don't want to do the statistical analyses yourself, here's one regression you can use:
    - Predicted Step 1 Score =  $69.4 + 0.74 (\text{NBME}_{13} \text{ score})$
    - The  $r^2$  is 0.67. And the Std. Error of the estimate is only 6.5!
  - If you want the rest of the statistical models, contact John Killian at [jkillian@uab.edu](mailto:jkillian@uab.edu)
- If you wish to see UAB's data regarding student practice exams and real Step 1 scores, please contact Dr. James Banos ([banos@uab.edu](mailto:banos@uab.edu)).
- If you have serious concerns about taking Step 1 during the allotted, dedicated study period, you may want to consider a leave of absence. This is a very important decision, and can have implications for your clerkship scheduling and for residency applications. We would advise you to speak with multiple advisors about this option if you feel that it might be something you wish to pursue.
  - <http://www.uab.edu/medicine/home/current-students/policies-procedures/withdrawal>

### What are some common problems that students have during the dedicated study period?

- Finding the best study strategy for you.
  - Hopefully you've developed a good approach since you have had to prepare for NBME exams throughout your preclinical time. Now is not the time to try out new study approaches that haven't worked for you in the past just because it seems like "everyone is doing something different" from you.
  - Your dedicated Step 1 study period should build on those successful techniques. It should NOT overhaul them.
- Getting "stuck" on a single topic -- and spending too much time on it without seeing a return on your investment.
  - Being stubborn is often a good quality in life. Medical students are good at delaying gratification and doing hard things. That said, you have a very short amount of time to prepare for Step 1.
  - It is very important that you have accurate ways of assessing your progress on a given topic, and ensuring that you are not "spinning your wheels."
  - It is important that you be able to adapt and change strategies if you notice something is not working for you.
- Question Bank Avoidance

- a. Some students feel that they should first “learn all the content” before attempting questions. And only then, after finishing their content review should they begin using a question bank.
  - b. This strategy can work for some students. (In fact, one of the authors of this guide used this strategy.)
  - c. In general though, we think this is a very dangerous practice. By avoiding questions, you are also blinding yourself to an excellent measure of your progress during the dedicated study period.
  - d. UWORLD has a **very strong track record** for preparing students -- and we believe you should incorporate UWORLD into your studying from the start.
4. Memorizing a subject instead of developing a conceptual understanding -- or aiming for deep conceptual learning when you really should just memorize instead.
    - a. Whenever you begin learning about a new topic in First Aid, we think it’s valuable to ask yourself a question before you start: “Is this a concept that I need to understand? Or is this a fact I need to remember?”
    - b. For example -- Just memorize what all the interleukins do. Memorize the tumor markers. Memorize the side effects of drugs.
    - c. However, make sure you deeply understand cardiac output curves. Make sure you understand changes in GFR based upon renal vascular changes. Make sure you understand pulmonary mechanics.
  5. A disappointing practice exam score.
    - a. You should look it as an opportunity to learn that much more new information. It’s much better to miss those questions now and learn the material than to miss them on your actual exam. Try not to let it cause undue anxiety that will hamper your efficiency moving forward.
  6. Using too many resources.
    - a. There are a ton of high-quality Step 1 study resources available, but try to select a few that work for you and stick with them. Spending the majority of your study time using a few of the top resources (e.g., First Aid, Pathoma, UWORLD) will serve you well. So keep it simple!
  7. “Making” too many study aids -- but not spending enough time actually studying them.
    - a. Don’t get bogged down trying to make a thousand flashcards or copy every chart in First Aid. If that’s the way you learn best, then fine, but if not, don’t do it. You only have a few weeks of unadulterated study time, so don’t get caught up in making “study aids” and then actually forget to study.
  8. Burning out before test day
    - a. Everyone will struggle with burnout as Step 1 approaches. Your challenge is to find the balance between mind-blowing productivity and mind-numbing exhaustion.
    - b. Try to keep frustration low by planning regular, quality break time so that you will return to studying refreshed. Avoid screen-related breaks (Netflix, video games, Facebook) because it’s harder to stop and your eyes will need a rest from the computer screen. A few break ideas include: exercise, calling a family member/significant other/friend, having a snack or meal without any step 1 resources. But don’t get carried away either. Make a plan and stick to it. When break time is over, get back to work.
    - c. Don’t pull all-nighters, skip all your breaks, or sacrifice sleep/food/hygiene.
    - d. Averaging 7-8 hours of sleep/night can go a long way.
    - e. Avoid the classmates that stress you out or distract you. You want your study environment to be positive and productive.
    - f. If you feel yourself burning out, ask MSS for advice sooner rather than later.
    - g. And remember -- thousands of other people have gone before you along this same path. **You can and will do this.** Work hard, learn from your mistakes, and get better every single day.

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## Appendix XIV: Comments on timing of USMLE Step 2

The timing of when you take Step 2CK and Step 2CS became more complex with the 2010 application cycle. Remember, you are required to pass Step 2CK and take Step 2CS in order to graduate. Here are some points to consider:

Step 2CK is becoming more important for programs across all residencies. Many Internal Medicine programs are now requiring a Step 2CK score before they will rank an applicant. This implies that you may want to take Step 2CK as soon as you feel comfortable with your knowledge.

**Note:** MSTP students do NOT have to finish their required clerkships prior to taking this test. The UASOM strongly suggests that everyone take Step 2CK before December 15<sup>th</sup> of the year you are applying to residencies so that you can have a reasonable expectation that your score will be available to residencies when they do their Rank Order List (they list you in order, just as you list them). Remember, you are required to pass Step 2CK; hence, you also want to take it soon enough to be able to study and retake the exam if necessary.

If you don't feel comfortable taking your Step 2CK prior to December 15th, then you need to directly contact each residency you are interested in and discuss your options. We have heard that at least some residencies are waiving this Step 2CK requirement for MD/PhD students, but this is done on a case-by-case basis. Communication is KEY.

Step 2CS is a test that has a very long lag time (often two months) before the grades are announced. If you match in certain states, you will have to post a passing score before you begin your internship. We suggest you pair taking Step 2CS with the OSCE and take it after you learn about your OSCE results. This would mean scheduling Step 2CS about seven weeks after you take your OSCE. The OSCE should be given in August and October, and you can expect your results four to six weeks after the test. It would be wise to know that you have passed your OSCE before you take Step 2CS. Some individuals who fail the OSCE are likely to perform better on Step 2CS after the remediation course, and they would be wise to delay taking Step 2CS until after remediation if possible. MSTP students are allowed to take their senior OSCE prior to the completion of all of their MSIII clerkships on a case-by-case basis. It should be taken in the Summer/Fall prior to their graduation date.

## **Appendix XV: Policies and Procedures**

**UAB's Policies and Procedures Library**

<http://www.uab.edu/policies/Pages/default.aspx>

**General Policy Regarding the Use and Consumption of Alcoholic Beverages**

<http://www.uab.edu/policies/content/Pages/UAB-AD-POL-000071.aspx>

**Drug-Free Campus Policy for Students**

<http://www.uab.edu/policies/content/Pages/UAB--POL-000046.aspx>

**UAB School of Medicine Policy on Impairment and Substance Abuse**

<http://www.uab.edu/medicine/home/current-students/policies-procedures/impairment-substance-abuse>