# APPLIED PHYSICS PROCEDURES

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Welcome to the Applied Physics family!

1. GETTING STARTED

**Student Picture Identification Card – your M-card:** Go to the Student Activities Building (SAB) at 515 E. Jefferson, Room 1011 for your University of Michigan student picture identification card (M-card). This ID is essential to Michigan and fee. Replacement is $20.

**Your Picture for Applied Physics:** Your picture will be taken at the Applied Physics Orientation to be added to the Applied Physics student website.

**Computer Access:** The University of Michigan will issue your unique name for e-mail. Please inform the Applied Physics administrator of your unique name to be added to the appropriate e-mail groups.

Please keep your personal information (address, phone, etc.) up-to-date in Wolverine Access. It does not automatically change through the university systems as you change residences.

If necessary, back up your files because the system is purged at the end of every term.

There is a computer lab at 2047C Randall Laboratory for personal use. You will also have access to wireless and a computer in your student office as well.

**Direct Deposit for University payments to you:** Fill out a form on-line for the direct deposit for fellowships, stipends and other student payments. Our staff in the Applied Physics office will guide you.

**Fellowships:** Fellowships are paid monthly. Please see administrator for the schedule.

**Taxes:** Taxes are not taken out of fellowship payments but must be paid. You will need to save money for the end of the year. However, taxes are taken out of the Graduate Student Research Assistantships (GSRA). For answers to current tax legislation, international treaty exemptions or the University deduction policy, please contact the Financial Services (734-647-3811) or the International Center (734-764-9310). Rackham will give a presentation on taxes so please look for that email.

**Office Assignment and Keys:** The Program Assistant will direct you to your student office and will have key forms issued for your office and for the building. Please take the key request forms to the Key Office at 525 Church Street. A deposit of $10 for each key is required in cash. It is a good idea to have your receipts kept in your student file in the Applied Physics office to make your deposit reimbursement a painless process after you have moved to another office or completed your degree.

**Book Purchases and Copier/Fax Access:** We recommend that you purchase your textbooks after the first class session to be certain that the books have not been changed by the instructor. For your convenience, there is a copier, scanner and fax machine available to you in the Applied Physics office at 267 West Hall.

**Background checks:** All students receiving payments other than fellowships are subject to background checks as mandated by the University. You will receive instructions from the program for fulfilling this requirement.
Graduate Student Instructor (GSI) and Graduate Student Research Assistant (GSRA) Appointments: The Applied Physics Program does not have Graduate Student Instructor (GSI) positions because all of our courses are cross listed. It is possible to teach in other departments if positions are open and qualifications are met. The employment relationship of a GSI is governed by and subject to the provisions of a collective bargaining agreement negotiated by the Graduate Employees Organization (GEO) and the University. Membership in the Union, or the payment of a service fee, is a condition of employment. Union dues and service fees are 1.15% of total employee salary.

GSRA appointments are made through your research advisor’s department. The GSRA is not included in the GEO collective bargaining agreement. You must register for six to nine credit hours per term as a GSRA.

Both positions, the GSI and the GSRA are considered University employees and thus are paid near the end of each month and subject to the background check.

Credit Hour Requirements: As a pre-candidate, you must register for nine credit hours per term. Once you have achieved candidacy, you are required to register for eight credit hours per term. It takes 68 credit hours to complete a Ph.D.

Continuous Enrollment: (Copied from the Rackham website) “The Dean and the Executive Board of the Rackham Graduate School have approved the adoption of a continuous enrollment requirement for Ph.D. students at the University of Michigan. Once admitted to a Ph.D. program, students will register every fall and winter term until their degree is awarded. The exception to this rule is through an official leave of absence through Rackham and Applied Physics. Students will register in spring or summer terms when they elect courses, take preliminary examinations or defend their dissertations.”

Health Coverage: The program pays for your health coverage. Please follow up to make sure you are registered in the plan that best suits your needs.

GradCare is a medical insurance program for GSIs, GSSAs, GSRA, benefit-eligible fellowship holders and medical school students. It is a “modified” point-of-service medical plan administered by BCN Service Company. Phone: (800) 222-5992 TTY: (800) 257-9980

International Student/Scholar Health Insurance Plan
If you are an F-1 or J-1 international student or a J-1 visiting scholar whose Form I-20 or DS-2019 was issued by the University of Michigan (Ann Arbor), you are required to have health insurance coverage for yourself and any F-2 or J-2 dependents while at the University of Michigan. Health insurance coverage is coordinated through the U-M International Center. 603 E. Madison, Room 5, Phone: (734) 647-2303

University Health Service (UHS) Managed Care/Student Insurance Office provides descriptions of various insurance options for students, which includes information about Travel Abroad Health Insurance and the Aetna Vital Savings Discount Program (a dental discount plan).

207 Fletcher St, Suite 2109
Phone: (734) 764-5182

UHS Prepaid Plan
The UHS Prepaid Plan allows prepaid access to UHS services, but it is not an insurance policy.

Phone: (734) 764-7380

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**Applied Physics Initial Requirement Summary:** The Applied Physics Program requires satisfactory progress toward the degree. As a minimum, this includes but is not limited to maintaining at least a B average in grades in Applied Physics 500-600 level courses, passing the Qualifying Examination, and making steady progress with your research.

We encourage you to become associated with a research group during this first year, either through the supervised research course or by some other mutual arrangement. Early involvement in research is an integral part of the Applied Physics program and you will find many opportunities provided by the multidisciplinary spread of our research activities.

Please note that all Ph.D. pre candidates are required to take a Qualifying Examination before or during their second year of study. The oral examination consists of a brief presentation of your supervised research followed by questions on standard undergraduate level physics.

**Core Course Equivalence:** Often students entering the Applied Physics Program will have already taken one or more courses which are considered core requirements. If you believe this might apply to your situation, please see the Director. For requests for courses to be considered for equivalency to satisfy Applied Physics Ph.D. core requirements, please provide the Director with the following information for review: (1) course description and/or outline, (2) textbook title and handouts, (3) course notes taken by the student, and (4) homework assignments and the student’s solutions (graded) and (5) official transcript of classes.

**Tutoring:** Please talk with the Director or Applied Physics staff to arrange for tutoring.

**Dropping Classes:** The Director must be consulted to drop classes. Please see the Program Assistant or Administrator for deadlines and processes. They are also posted on the Office of the Registrar’s website: [http://www.ro.umich.edu/](http://www.ro.umich.edu/).
2. APPLIED PHYSICS CURRICULUM

FIRST YEAR STUDENTS

Electricity & Magnetism I Phys 505*  
or Electromagnetic Theory I (AP 530)*  
Electricity & Magnetism II (Phys 506)*

Applied Quantum Mechanics I (AP 540)*  
or Quantum Mechanics I (Phys 511)  
Quantum Theory of Light (AP 609/EECS 638)*  
or Quantum Mech. II (Phys 512)

Statistical Physics (Phys 510)  
Supervised Research (AP 715)

Responsible Conduct of Research, UC 415  
This course in mandatory, indeed required.

Seminar Attendance (AP 514) One Credit

SECOND YEAR STUDENTS

Computational/Math Methods Elective **  
Elective Course*

Condensed Matter (Phys 520)*  
or (EECS 520)  
Elective Course*

Elective Course*  
Elective Course*

Seminar Participation (AP 514) two credits

* Options to be discussed with Program Director

* At least two electives must be at the 600 level

** One of the following must be elected:

Microcomputers in Experimental Research (AP 518)  
or Methods of Applied Math I (M 556)  
or Numerical Methods for Scientific Computing I (M 571)  
or other approved computer/math methods options

THIRD YEAR STUDENTS

Seminar Participation (AP 514) two credits  
Plus any remaining elective courses
3. GRADES (Copied from the Rackham website)

GPA Conversion Announcement (copied from http://www.rackham.umich.edu/policies/gpa/)

"Rackham and the Registrar are pleased to inaugurate a new system for calculating grade point averages (GPA) starting in the Fall 2013 Term. At the recommendation of Rackham Student Government, which polled students and completed a comparison study of peer institutions, the Executive Board of the Rackham Graduate School has approved changing the system for converting letter grades to GPA from a 9.0 grade point system to a 4.3 system, with a maximum term and cumulative GPA of 4.0. Transition to a four-point GPA system will align the Graduate School with nearly all colleges and universities in the United States and with the University's GPA system for undergraduates.

Letter grades submitted by instructors will be converted into numbers, or points, as follows:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Number Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.3</td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
</tr>
<tr>
<td>D+</td>
<td>1.3</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
</tr>
<tr>
<td>D-</td>
<td>0.7</td>
</tr>
</tbody>
</table>

The Registrar will implement this system for Rackham students who are enrolled and active (including those on detached study, leave of absence or on extramural study status) by the start of the 2013 Fall Term. Grades for all courses completed in prior terms under Rackham registrations will be converted using the new grade point system. Students and faculty need not do anything for this transition. Faculty will continue to submit letter grades, which will continue to appear on transcripts. The change will affect only the grade points assigned to each grade as well as the calculation of the term and cumulative GPAs.

Persons whose degrees have been conferred before the 2013 Fall Term will not have their GPA converted to the new system unless they return to pursue a new degree. Students who have withdrawn and are returning to their program, or to a new program, will have their GPA calculated under the new system when they are admitted, readmitted, or reinstated.

In conformity with Rackham Academic policy, students will still need to maintain a cumulative GPA equivalent to B or better. With the new system, this will be a 3.0 GPA.

For further information see the policy section on grading, and for questions, contact Rackham."
Other transcript notations include:

**Visits (VI)**

A notation of "VI" appears on the transcripts of students who successfully complete a course which they have elected to visit (audit). These courses do not count for degree credit requirements. Students who do not complete a course to the satisfaction of the instructor, and who have not dropped the course, receive a notation of "E" or "ED" (unofficial drop) on their transcript. This grade will be calculated into the student's GPA.

**Satisfactory (S) and Unsatisfactory (U)**

The department or program designates courses for which S/U grading is used. A student may, however, with permission from the advisor and the course instructor, elect S/U grading in a course that would otherwise be letter graded. Instructors cannot assign letter grades to students electing courses designated as S/U. A grade of "S" indicates that the instructor considers the student to have performed satisfactorily at the graduate level, and is counted toward the credit hour requirements of the degree program. A grade of "S" is considered to be a grade of "B" or better. A grade of "U" is assigned when a graduate student's level of performance is not acceptable, and is not counted toward a student's required credit hours. Grades of "S" and "U" are not converted into numbers, and are not factored into the Grade Point Average or Michigan Honors Points.

**Incomplete (I)**

A student may receive a grade of Incomplete ("I") only if the work remaining to be done for the course by the end of the semester is small and the instructor approves an extension for instructor, the grade will appear on the transcript as, for example, "I B+." The grade point average is based only on hours of coursework completed.

The instructor must agree to this arrangement and determine a deadline for finishing the assigned work before a grade is assigned. When coursework is completed to the satisfaction of the

**Drops (W) and Unofficial Drops (ED)**

A course that is officially dropped after the first three weeks of a full term (or the first two weeks of a half term), will be recorded with the notation of 'W,' and will not earn credit hours toward the degree program or Michigan Honor Points.

A student who registers for a course and either never attends or stops attending—but does not officially drop the course—receives a notation of "ED" (Unofficial Drop). A notation of "ED" is equivalent to a grade of "E" (failure). After the end of the term, but before the grade is posted, a student may petition to have a "W" recorded for the course. Students must complete an election worksheet, available from their department or program, or from the Registrar's Office at 1210 LSA Building, 500 S. State St., or at Pierpont Commons on North Campus.

**Multi-Term Course (Y)**

Departments may designate a graduate course as a multi-term sequence. The instructor may report a "Y" grade at the end of the first term to indicate that the work is still in progress. When a final grade is reported, the grade will be posted for both terms and the "Y" notation will be removed.
CORE COURSE EQUIVALENCE

NOTE TO STUDENT’S FILE:

______________________________________________________________(student’s name)

is requesting that

_____________________________________________________________________________

Course Name____________________________________  Course Number_____________

From_________________________________(University) be considered for equivalency

A grade of____________ was received for____________ credit hours.

The following items are attached:

1. Course description and/or outline
2. Textbook and handouts
3. Course notes taken by student
4. Homework assignments with graded student’s solutions
5. Transcript verification

The appropriate equivalent University of Michigan course requested is:

Course Name____________________________ UM Course Number_________.

The materials listed above were reviewed for course equivalency. It____________ (is/is not) graduate level material. The approximate percent overlap between the proposed transfer credit course for the University of Michigan course, __________________________. Is ____________ (%).

Professor Cagliyan Kurdak  
Director, Applied Physics

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5. SUPERVISED RESEARCH COURSE-APPPHYS 715

Non-thesis research under the supervision of Applied Physics affiliated faculty is a key ingredient of the Applied Physics Program. You usually register for this course in the winter term of your first year. Satisfactory completion of this 4-credit hour graded course is considered a core requirement. Prior approval by the Program Director must be obtained before beginning the supervised research course. A brief contract between you and your project advisor is mandatory, and will be kept in your file. Your progress in this project will be evaluated in detail at the completion of this course. Research group leaders commit to the program’s goals for the course when they agree to supervise a student for their project. The goals and supervisory practices expected are part of this program document. Please see the Program Administrator for a sample copy of a contract.

Practices and Goals:
1. At the beginning stage of the research project, you and your supervisor lay out a critical path, which may be revised during the course. The plan should contain ample allowance for unexpected delays or additional work. One common reason for late completion of APPPHYS 715 is a slow start in the research project, resulting from lack of planning or clearly defined goals.

2. When research is carried out in a collaborative team setting, the necessity of meeting overall project deadlines and goals should not hinder your specific contribution to the work or unduly affect the time necessary to ensure your grasp of the project as a whole.

3. To balance between research and coursework studies, twenty laboratory hours per week devoted to the four-credit research course is a general guideline. You should be made aware of the nature and pace of work that is expected and appropriate to the field of study.

4. Both parties need to keep systematic records. A clear and well-defined process of assessment allows you to know where you stand and can be of value in detecting and correcting any challenges.

5. You should know at various stages how well things are going, and must feel that the supervisor is providing proper direction. While there must be candid and open communication between supervisor and student, it is important to establish a regular time during which the you and your supervisor meet to discuss your progress.

6. If possible, appropriate milestones should be established, determining the points which you should have reached at designated times during the winter term. Fairly early in the project, the supervisor needs to assess whether it is likely that you will be able to bring the work to a timely conclusion, or whether the timing is such that you should consider extending the work into the summer session. If the work is to be extended, please inform the Program Director. Your progress is our goal.

7. An “Incomplete” Grade is given when the project cannot be brought to a satisfactory conclusion by the end of the Winter term. Circumstances such as laboratory equipment delays or difficulties balancing coursework and research may impact the timing of the completion of the research. The research advisor should submit a grade revision when the course is completed.
8. The timing of your Qualifying Examination is to be considered when a summer extension of your supervised research is necessary. Please discuss this with the Director. At the beginning of the Qualifying Exam, a brief oral presentation of the research is expected as a kind of “ice-breaker.”

9. As a side note, adequate time should be set aside for studying and preparing for Qualifier exams. The Director and other participating faculty will hold informal study sessions beginning in late May that run through the summer. You will be notified when these begin and you are expected to attend. These sessions are designed for your success. More on the Qualifying Exams below (section 6).

Evaluations:

1. This supervised research course is the basis of a brief presentation at the beginning of the oral Qualifying Examinations. The oral exam assumes knowledge of general undergraduate level physics. The first 15 minutes (maximum) consists of a brief presentation of the physics involved in your supervised research project.

Summary: In some fields, when the work has gone well and opened up prospects for future research, the supervisor may suggest that the student might like to consider continuation in the project as a graduate research assistant working toward a Ph.D. dissertation. This is considered a part of the rotation process for finding your passion in research.

6. QUALIFYING EXAMINATIONS

Qualifying Procedure: Applied Physics students are required to take the qualifying examination during their second year in the program, usually in the late summer before the third academic term begins. The Qualifying Examination is intended to evaluate your knowledge in physics at the undergraduate lever. It is given to determine if other fundamental courses are needed before you proceed further in your studies and research. You will be expected to articulate various topics and concepts, to analyze problems and to synthesize solutions.

The decision to qualify a student for Ph.D. study is based on the results of the Qualifying Examination, academic record, and performance in the four-credit hour supervised research project

Oral Qualifying Examination: The qualifying exam is an oral examination. You begin with a brief oral presentation of your supervised research, followed by questions from the faculty on standard undergraduate-level physics. The major purpose of the qualifying exam is to identify any gaps in your foundation and academic preparation that might affect future progress in research.

The oral qualifying examination is administered by three professors and will be tailored to your general background. Questions should assume a general knowledge of undergraduate level physics and need not be confined to specific courses elected. Information on core courses and the students’ backgrounds is presented to the examiners. The duration of the exam is normally one to one and a half hours.

The examiners make every effort to put you at ease; the first 15 minutes (maximum) of the exam will take the form of a brief presentation by the students of the physics of their supervised research experience. After the oral qualifying examination each examiner will submit an individual evaluation of your performance.
Final Qualifying Decisions:
Final decisions are made by the Applied Physics Executive Committee and are based on results from the oral exam, grade point average, and the grade in the supervised research project.

In some cases, students are asked to retake the oral examination. Other recommendations might be to seek a teaching assistantship; to apply as a tutor in the Physics department or as a tutor in the Physics Help Room; in some cases students may be required to take additional courses.

The qualifying examination may be taken twice. The oral examination will be rescheduled usually with the same examiners the following year.

The next step for students who pass the Qualifying Examination is to finish the course requirements and to proceed to the Preliminary Examination (see below) for Ph.D. dissertation research.

It is possible to earn a terminal masters’ degree in Applied Physics when students do not complete the requirements for the Ph.D. Program. Specific requirements for the Masters of Science in Applied Physics are covered next.

7. MASTER’S OF SCIENCE DEGREE AND IMES-MOORE FELLOWS

The master’s degree (M.S.) may be earned as an embedded degree (while in pursuit of the Ph.D.) or as a terminal degree. Traditionally, the embedded M.S. has been awarded in Applied Physics or Electrical Engineering and Computer Science, but is not limited to those two disciplines. The Imes-Moore terminal M.S. is earned by completing the core course requirements and a research project. Under certain circumstances, the terminal M.S. has been awarded when students elect to terminate their studies early and if the M.S. requirements are met. The minimum number of credits necessary for the master’s degree: 30 credit hours.

Specific course requirements call for at least 20 hours of graduate level courses from the Applied Physics core curriculum at the 500-level or higher. Some 400 level courses may be taken with the Director’s approval. Please remember that at least a B average is necessary to satisfy the Rackham grade requirement (please see Grades, page 4).

Specific course requirements for the Masters Degree and MSH credits are (but not limited to):

3 Quantum Mechanics
3 Classical Mechanics
3 Electromagnetism
4 Supervised Research
8 4 semesters of Seminar Course: 2 (1 credit ea.) + 4 (2 credit ea.)
3 Statistical Mechanics
3 Condensed Matter or 500-600 level course of your choice
3 Computational/Math Methods Elective

Total = 30 Credits

Please see the Program Administrator to apply for the embedded M.S. and the Director to discuss the best course to take for a terminal M.S.

A Masters of Science Degree Application is required by Rackham upon completion of requirements.

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The Masters degree in Electrical Engineering and Computer Science (EECS) was mentioned as an option. Please look at their requirements on-line and take the cross listed courses in EECS instead of APPPHYS. Contact Mr Kevin Calhoun at 734-764-3344 or kacalh@umich.edu for more information.

8. PRELIMINARY EXAMINATION, DISSERTATION - DEFENSE

Rules for the Preliminary Examination, Dissertation Prospectus and Composition of the Dissertation Committee

Preliminary Examination: The purpose of the Preliminary Examination is primarily to assess students’ preparation and plans for Dissertation research. Passing this examination takes a student from pre-candidacy to candidacy. It is an oral examination and should consist of the following elements:

1. A brief review by the Committee of the courses taken by the student. A copy of the student’s transcript (or other summary of courses and grades) should be available to each member of the committee prior to the oral exam. This discussion will most likely occur at the beginning of the examination without the student being present.

2. A presentation by the student of the plans for the dissertation research. The presentation should follow approximately the format of the Dissertation Prospectus (see below).

3. Questions asked during the Preliminary Examination will be at the discretion of the Committee.

The Preliminary Examination is expected to last about one to one-half hours. There are four categories in which the Committee will classify the outcome of the Preliminary Examination:

1. Passed with Distinction
2. Passed
3. Passed with Reservations
4. Failed

If the third category is chosen, the Chair of the Committee should provide a written statement to the program Director setting down the Committee’s reservations, and recommendations (or requirements) of which the student should satisfy, with a time line decided by the Committee. For Example, the student may appear to be weak in a particular subject, which is of direct importance to the proposed research. In such a case, the Committee shall recommend (or require) that the student take additional course work, or do background reading or directed study in the area(s).

In the event the student fails the Preliminary Examination, the Chair of the Committee shall provide the program Director with a written summary of the Committee’s decision giving pertinent details. The Preliminary Examination may be retaken one time only.

Dissertation Prospectus: The student will present a copy of his/her Dissertation Prospectus to each member of the Dissertation Committee at least 10 days prior to the Preliminary Examination. The Prospectus should include the history of the proposed research and describe the objectives, the methods, and give examples of any preliminary results or feasible studies that are relevant to the project. The total length of the Prospectus should be less than 10 pages typed, double-spaced.
**Composition of the Dissertation Committee:** Dissertation Committees are subject to approval by the Applied Physics Program and by Rackham. The Rackham Student Handbook should be consulted for rules pertaining to general definitions and general requirements of the Rackham Graduate School that apply to Dissertation Committees in all Graduate Programs.

**Rackham’s Requirements:** A summary of these basic requirements is as follows: Rackham requires a minimum of four members to serve on a Dissertation Committee. They do not require a cognate member because the program is interdisciplinary. A basic committee would be: the Chair, and three qualified members with Ph.D.s and are of professorial rank. Note that Rackham rules allow certain research staff to co-chair a committee but not to be a sole Chair (see Rackham Student Handbook). Also Rackham rules require that there must be at least two faculty members from the student’s home department (i.e., program). Committee members outside of the university are permitted to serve upon approval. Please use the Rackham Special Membership form (www.rackham.umich.edu/downloads/oard/specialmembership.pdf) and submit a CV to the Program Administrator who will prepare all forms for Rackham’s approval.

**Applied Physics Requirements:** The Program requires five committee members to serve on the prelim/dissertation thesis committee. A minimum of two Applied Physics faculty must serve on the committee. Please see the Applied Physics faculty list (http://www-applied.physics.lsa.umich.edu/faculty.html).

Please speak to your advisor, and if necessary, the program Director for committee recommendations and program approval.

**Dissertation:** Once you have fulfilled the Program’s requirements, you must complete Rackham’s. Please go to:
http://www.rackham.umich.edu/dissertation_information/dissertation_resources/
for the requirements and resources.

You will need to meet with the Applied Physics Rackham Specialist in Records and Dissertations. Ms. Ashley Andrea (smash@umich.edu) will guide you.

**Defense:** You will book the room for your defense and schedule this meeting with your committee. You will invite those that you want to attend. If you want an announcement to go out to the Applied Physics community, please send an announcement email the Program Administrator.

**FROM PROFESSOR CAGLIYAN KURDAK:**

*Dear Student,*
*We are here for your success. Our doors are always open. Please let us know how we can best serve your needs and help you.*
*Sincerely,*
*Cagliyan Kurdak*

Cagliyan Kurdak, Director, 267 West Hall, 734-647-4650, kurdad@umich.edu

Rachel S. Goldman, Assoc. Director, 4231 Randall, 734-647-6821, rsgold@umich.edu

Cynthia McNabb, Program Administrator, 267 West Hall, 734-936-0653, cyndia@umich.edu

Lauren Segall, Program Assistant, 267 West Hall, 734-764-4595, lbsegall@umich.edu
Report on the Preliminary Examination

____________________(date)

To: Cagliyan Kurdak, Director
   Applied Physics Program

FROM: The Dissertation Committee of _______________________(candidate’s name)

We have examined the student named above as to background knowledge and preparation for dissertation research. We find that s/he has:

________  Passed with Distinction
________  Passed
________  Passed with Reservations*
________  Failed

In signing our names below we reassert our willingness to remain on the Dissertation Committee of this student

Chair: ____________________________  Empl. ID

Co-Chair: ____________________________

Members
   ____________________________
   ____________________________
   ____________________________
   ____________________________
   ____________________________

____________________

Allowance is made for one (and only one) member of the Committee to be absent from the examination. However, if the absent member wishes to remain on the Dissertation Committee, he/she should reassert a willingness to do so by signing as Absent Member ____________________________.

*Chair of Dissertation Committee to provide a letter summarizing the nature of the reservations and recommended course of action to remedy them.

After all signatures have been made, please return this form to the Applied Physics' administrative office.