INTRODUCTION

This handbook is designed to provide you with information that will be helpful to you as a participant in the Cell, Molecular and Developmental Biology graduate program at UCR. We hope that you will read it carefully and consult with it as needed when you have questions about the program. In addition, please feel free to contact the Director, Graduate Advisors, and Graduate Student Affairs Officer for additional information or clarification.

The handbook includes the names and contact information for all participants in the program, provides an overview of the academic objectives and requirements of the program, and time-tables for the completion of degree objectives. It also contains information to help orient new students to the campus and it describes special features of our program and resources of our campus.

Because our program is interdepartmental, it provides a very broad framework for interactions and learning in the area of Cell, Molecular, and Developmental Biology. We hope that you will take full advantage of the opportunities that our program has to offer while you are at UCR.

Additional information about our Program and Faculty is available at our web-site: www.cmdb.ucr.edu.
CURRENT PROGRAM OFFICERS

Program Director – Dr. Jeff Bachant (2113 Biological Sciences Building) is responsible for overseeing and administering the CMDB program. E-mail jeffbach@ucr.edu, x2-6473

Graduate Advisor for Recruitment and First-Year Students – Dr. Dmitri Maslov (1352 Spieth Hall) is responsible for overseeing the processing of graduate student applications and matters concerning first year graduate students. E-mail maslov@ucr.edu. x2-6485.

Graduate Advisor for Continuing Students (Second-Year through Graduation) – Dr. Patricia Springer (3107B Genomics Building) is responsible for matters concerning continuing graduate students in years 2-5. E-mail pspringer@ucr.edu x2-5785.

Graduate Student Affairs Officer – Kathy Redd (1140 Batchelor Hall) maintains graduate student files and responds to questions regarding graduate student policies and procedures. E-mail kathy.redd@ucr.edu. x2-5621

The other staff in the CNAS Graduate Student Affairs Center (1140 Batchelor Hall) can also assist you when Kathy Redd is not available.

BNN (Biology, Cell Biology & Neuroscience, and Natural Reserve System) Business Office

This office provides administrative support to the CMDB program. Hours for the Business Office are 7:30a.m.-12:00p.m. and 1:00p.m.-4:30p.m, M-F and they are located in the Life Sciences Building. Please see the BNN Administrative Unit Guide in Section 4 of this Handbook.
**REQUIREMENT I**

**All students** are required to take one graduate level course in each of the three categories:

<table>
<thead>
<tr>
<th>CELL BIOLOGY</th>
<th>MOLECULAR BIOLOGY</th>
<th>DEVELOPMENTAL BIOLOGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least one course from the following:</td>
<td>At least one course from the following:</td>
<td>At least one course from the following:</td>
</tr>
<tr>
<td>___ BPSC 237 – Plant Cell Biology (4) (Fall)</td>
<td>___ BCH 211 – Molecular Biology (3) (Fall)</td>
<td>___ BPSC 232 – Plant Development (4) (Spring)</td>
</tr>
<tr>
<td>___ CMDB 200 – Cell Biology (4) (Winter)</td>
<td>___ BPSC 231 – The Plant Genome (4) (Winter)</td>
<td>___ CMDB 202 – Developmental Biology (4) (Spring)</td>
</tr>
<tr>
<td>___ NRSC 200A – Fundamentals of Neuroscience (3) (Fall)</td>
<td>___ CMDB 201 – Molecular Biology (4) (Fall)</td>
<td></td>
</tr>
</tbody>
</table>

**REQUIREMENT II (Ph.D. Only)**

**Ph.D. students** are required to take at least one of the following 3- or 4-unit courses or two of the 2-unit courses from the menu below. Alternatively, any course from the list above (other than the three used to fulfill Requirement I) may be taken.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>___ BCH 210 – Biochemistry of Macromolecules (4)</td>
<td>___ CHEM 284 – Biological Mass Spectrometry (2)</td>
<td>(Spring)</td>
</tr>
<tr>
<td>___ BCH 212 – Signal Transduction &amp; Biochemical Regulation (3)</td>
<td>___ CMDB 204 – Genome Maintenance &amp; Stability (4)</td>
<td>(Winter)</td>
</tr>
<tr>
<td>___ BIEN 233 – Computational Modeling of Biomolecules (4)</td>
<td>___ CMDB 205 – Signal Transduction Pathways in Microbes &amp; Plants (4)</td>
<td>(Spring)</td>
</tr>
<tr>
<td>___ ENGR 3 – Biomedical Electronics</td>
<td>___ CMDB 206 – Gene Silencing (3)</td>
<td>(Winter)</td>
</tr>
<tr>
<td>___ BIOL 221 – Microbial Genetics (4)</td>
<td>___ CMDB 207 – Stem Cell Biology and Disease Vectors (3)</td>
<td>(4)</td>
</tr>
<tr>
<td>___ BPSC 201EZ – Methods in Plant Biology (1-2)</td>
<td>___ CMDB 210 – Molecular Biology of Human Disease</td>
<td></td>
</tr>
<tr>
<td>___ BPSC 239 – Adv. Plant Physiology (3)</td>
<td>___ CHEM 284 – Biological Mass Spectrometry (2)</td>
<td>(Spring)</td>
</tr>
<tr>
<td>___ OTHER (with consent of Graduate Advisor)</td>
<td>___ CMDB 204 – Genome Maintenance &amp; Stability (4)</td>
<td></td>
</tr>
</tbody>
</table>

**REQUIREMENT III**

**All students** are required to take the Graduate Seminars (257, 258) in *Cell, Molecular, and Developmental Biology* each quarter offered in residence.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>___ CMDB 257 (Fall)</td>
<td>___ CMDB 258 (Spring)</td>
<td>In addition, if a laboratory holds regular lab meetings, students should enroll in 1-2 units of CMDB 250 per quarter. Please note that students are only allowed to enroll in one class per quarter which provides credit for lab meetings (for example, you may not take CMDB 250 and BCH 240 at the same time).</td>
</tr>
</tbody>
</table>

**REQUIREMENT IV**

**M.S. students** are required to take one graduate seminar course in his/her area of specialization.

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>___ BCH 230 or BIOL/CMDB 281 or BPSC 240 or NRSC 289</td>
<td>___ OTHER (with consent of Graduate Advisor)</td>
</tr>
</tbody>
</table>

**Ph.D. students** are required to take two graduate seminar courses in his/her area of specialization.

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>___ ___ BCH 230 or BIOL/CMDB 281 or BPSC 240 or NRSC 289</td>
<td>___ ___ OTHER (with consent of Graduate Advisor)</td>
</tr>
</tbody>
</table>

**REQUIREMENT V (Ph.D. Only)**

**Ph.D. students** must fulfill a two quarter teaching requirement. 

<table>
<thead>
<tr>
<th>Course/Quarter</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>___ ___</td>
<td>___ ___</td>
</tr>
</tbody>
</table>

Revised 09/13
Cell, Molecular, and Developmental Biology Graduate Program

ENTRANCE REQUIREMENTS:

___1 SEM or 2 QTRS Calculus (MATH 9A-B or equiv.)
___1 YR Physics (PHYS 2 A-C or equiv.)
___1 YR Inorganic Chemistry (CHEM 1A-C or equiv.)
___1 YR Organic Chemistry (CHEM 112 A-C or equiv.)
___1 YR Introductory Biology (BIOL 5A-C or equiv.)
___1 COURSE Biochemistry (BCH 100 or BCH 110A or B or C or equiv.)
___1 COURSE Genetics (BIOL 102 or equiv.)
___1 COURSE Statistics (STAT 20 or equiv.)
___2 upper division COURSES in cell, molecular or developmental biology (BPSC 135 or BIOL 111 or BIOL 107 or BCH 110C or equiv.)

Graduate Advisor Notes:

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________
PROCEDURES FOR WAIVING COURSEWORK REQUIREMENTS

Enrolled students asking for exemption from program coursework requirements (or prerequisites to program) must submit a General Petition the CMDB Executive Committee with a statement of justification and supply documentation (transcripts, course syllabi, etc) for the committee’s review.

GRADUATE DIVISION REQUIREMENTS

For information on specific Graduate Division requirements, please refer to the UCR Graduate Student Handbook (http://www.graduate.ucr.edu); to the Graduate Studies section of the University of California, Riverside General Catalog; and to the Graduate Division’s web site (http://www.graduate.ucr.edu).
CMDB General Student Petition

Name:__________________________________________

Request:

Reason for request:

Approvals:

Student:_________________________________________ Date:_______

Major Professor:_______________________________ Date:_______

Graduate Advisor:______________________________ Date:_______
Protocol for CMDB Student’s 
ANNUAL RESEARCH PROGRESS EVALUATION (ARPE) 
First Distributed October 1, 2006 
Updated December 20, 2007 
Updated May 2011

Each CMDB student is required, by both the Graduate Division and the CMDB Program, to have an Annual Research Progress Evaluation (ARPE). This will allow determination of whether the student is making normal and acceptable progress towards completion of her/his Ph.D. dissertation or MS thesis. Each student must hold an annual ARPE meeting with all the members of her/his Advisory /Dissertation Committee in the interval of April 1 – June 15th for each year the student is enrolled. Following the meeting, the student’s major professor must prepare a written evaluation to be reviewed and signed by all the Committee members. A copy of this evaluation is to be promptly provided to the student, each Committee member, and also two copies are to be forwarded to the CMDB Student Affairs office (Ms. Kathy Redd) within several days of the scheduled ARPE meeting, but absolutely no later than June 30th. Students who do not complete the ARPE process by June 30 will be declared “not in good standing”. These students must schedule a meeting with their Graduate Advisor and propose a plan to fulfill their ARPE requirement in a prompt manner. Holds will be placed on Fall enrollment for these students. Students who continue to be classified as “not in good standing” will not be eligible for Teaching Assistant appointment or for financial support from the CMDB Program. Once the Graduate Advisor is satisfied that the ARPE requirement has been meet, a recommendation will be made to the Director to restore the student to “good standing” within the program.

After review of the student’s ARPE report by the appropriate CMDB Graduate Advisor, the CMDB Student Affairs office will forward the report to the Graduate Division along with an indication of whether the student is ”in good standing” or “not in good standing”.

General Protocol for ARPE:
The ARPE will be initiated by the student preparing a written report (see details below) and scheduling, several weeks in advance, a time, date and location for the meeting of her/his Advisory Dissertation committee. The report must be distributed by the student to each committee member one week in advance of the scheduled meeting; also one electronic copy should be e-mailed to the CMDB Student Affairs office (Ms. Kathy Redd, kathy.redd@ucr.edu). The meeting will be chaired by the student’s major professor. At the meeting, the student will make a 25 - 45 minute oral presentation, augmented by slides or other visual aids, if necessary, and answer questions raised by the Committee. The last phase of the meeting will be a private discussion of the Committee members to evaluate the student’s annual research progress. The meeting will be concluded by the Committee sharing its conclusions with the student.

Student’s Annual Written Research Report: The student’s written research report should not be simply a recapitulation of the student’s oral presentation to her/his Advisory Committee. The written research report is a formal document that should be
prepared according to the guidelines provided in the paragraphs below. It must be comprehensive and allow for being understood by a reader who would not attend the student’s Advisory Committee presentation. Each student’s Annual Research Progress Evaluation written report will be reviewed by the appropriate Graduate Advisor.

**Page #1 Background and Introduction:** There should be no more than 1 page of Introduction that will allow the reader to understand the context and starting point for this year’s research evaluation; literature citations are not needed. The Introduction should conclude with an enumeration of 2-3 key research questions (goals) that will be covered in this year’s evaluation.

**Pages #2-6 Research Data:** Summarize the key results (both positive and negative) as Figures and Tables using experimental data obtained over the past 12 months. Each Figure and Table should have a title and a legend that will permit the reader to understand the experiment; the extent of legend detail should be similar to that utilized by the Journal of Cell Biology. Also, under each legend, one or two sentences explaining the purpose of the experiment should be provided. The written report is limited to no more than 5 pages of data presentation; additional results may be included in the student’s verbal presentation. No narrative of the results, discussion or reference citations should be included in the report.

**Page #7 Major Points:** Following the Research Data pages, a list of the significant conclusions revealed or supported by the experimental data should be written. Each conclusion or point should be limited to no more than two sentences. These points may be verbally and graphically amplified and discussed in the student’s oral presentation. Collectively, they should answer the question “What have you learned in the past 12 months?” This page should be concluded with an enumeration of 2-4 research goals for the following year.

**Page #8 Additional Information on the Student:** All information solicited here pertains to the previous 12 months. Provide the following information on a page titled “Additional Student Information”. (a) List the courses you completed with their grades. (b) Indicate whether you completed your written qualifying exam (date) or oral qualifying exam (date). (c) List any scientific papers or abstracts that you authored or co-authored that were formally published; provide a complete citation using the reference style of the Journal of Cell Biology. (d) List any scientific meetings that you attended; list the name of the meeting and where it was held, the approximate number of attendees and describe your contribution(s) (platform talk, poster, observer, etc.). (e) List any awards you have received.

**Instructions for Student Preparation of the ARPE Report**

The ARPE document should be typed in font 11 or 12 (with each page numbered in the lower right corner). A Header for each page should list the students first and last name and the scheduled date and location of the Advisory/Dissertation Committee meeting. The ARPE report should be personally handed out by the student to each Committee.
member and one electronic copy to the CMDB Student Affairs office (Ms. Kathy Redd) at least one week in advance of the scheduled meeting. The student is responsible for scheduling the ARPE meeting and reserving a room for the meeting. Also the student should send an e-mail reminder to each Committee member 24 hours in advance.

**ARPE Advisory Committee Written Report**

The student’s Major Professor, acting as Chair of the Advisory/Dissertation Committee is responsible for preparing the required formal written report concerning the students Annual Research Progress Evaluation. It should provide the following information.

(a) The report should be in the format of a memo addressed to the student’s Graduate Advisor.

(b) Date of the student’s Research presentation and identification of the Committee members.

(c) A characterization of the student’s research performance over the past year using one of the following four descriptors (Strong Performance; Average Performance; Room for Improvement; Unsatisfactory Performance).

(d) A summary in 1-2 paragraphs of the strengths of the student, areas that need attention by the student, an assessment of the degree-of-difficulty of the research project, and any other information or issues that bear upon the Committees assessment of the student’s research progress over the past 12 months.

(e) The report should also state whether the student is making ’normal progress to the degree’ or whether there is some concern.

(f) All Committee members must sign the report.

(g) Copies of the signed report must be given to the student and each Committee member and one electronic copy forwarded to Ms. Kathy Redd in the CMDB Student Affairs office.
THE ACADEMIC PROGRAM (M.S.)

To help you plan your program and monitor your progress, a Time Table Checklist for the M.S. Degree appears at the back of this section.

The M.S. degree is a research degree that requires the completion of a thesis. The CMDB Graduate Program does not offer a “coursework” M.S. degree. M.S. students generally concentrate on formal coursework during the first year and on research the second year.

The degree requires completion of 36 units of coursework. Twenty-four units must be in appropriate graduate courses (200 series), a maximum of 12 of 290-299 may count toward the degree. The remaining 12 units can be taken either in the 100 or 200 series. Students must take three CMDB core courses, the Seminar in Cell, Molecular; Developmental Biology (257) & the Graduate Student Seminar in CMDB (258) each quarter they are offered; plus one graduate seminar (see checklist for course requirements in Section 3 of the handbook).

CMDB 257 (a series of seminars presented by distinguished outside speakers) is normally offered in the fall quarter. Students are required to register for CMDB 257 each quarter it is offered. CMDB 258, offered every spring quarter, gives credit to graduate students presenting their research results at the annual student research symposium. Enrollment in CMDB 258 and participation in the Annual Research Symposium is required each year in residence.

CMDB 250 Special Topics in Cell, Molecular, and Developmental Biology provides students with a way to earn course credit for organized laboratory meetings. Students may enroll in 1-2 units per quarter. Please note that students are only allowed to enroll in one class per quarter which provides credit for lab meetings (for example, you may not take CMDB 250 and BCH 240 at the same time).

The following is a timeline guide for students pursuing the M.S. degree:

1) **Meet with the Graduate Advisor as soon as possible** in your initial quarter of study. He/She will work with you to design an appropriate academic course of study for your degree plan and will help you select an appropriate major professor. You may undertake two research rotations during your first quarter of study. Once you have chosen a major professor, you will choose a Guidance Committee (3 member committee that includes your Major Professor) in consultation with your major professor and the Graduate Advisor.

2) **In the first year, take basic coursework** and complete the core requirements for the program. Students who are admitted to graduate standing lacking CMDB entrance requirement courses will be required to take appropriate undergraduate courses.
3) Select a Guidance Committee in consultation with your chosen Major Professor by the end of your second quarter.

4) Plan and begin a research project during the second quarter, select a major professor and prepare a brief description of the proposed research to present to your Guidance Committee.

5) Make substantive progress on your research during the third quarter. By the end of your first year of graduate school, your research project should be well planned and substantially underway.

6) Attend Annual Research Symposium.

7) Meet with your Guidance Committee during your third quarter in residence before the Annual Research Symposium, to discuss your progress in the program and complete the Annual Research Progress Evaluation.

8) Carry out your Thesis Research during the summer and the second year. Confer with your Major Professor regarding the format of your thesis. The format is somewhat flexible, but must meet with the approval of the Thesis Committee and the Graduate Division. Choose your Thesis Committee (3 member committee that includes your major Professor) in consultation with your major professor and the Graduate Advisor. Graduate Division must approve your Thesis Committee. Your Thesis Committee may be the same as your Guidance Committee.

9) Give a presentation at the CMDB Annual Research Symposium.

10) File an Application for Candidacy for Master of Science Form the quarter you expect to graduate. You can get this form from the Biological Sciences Graduate Student Affairs Center. It requires a portion to be completed by you and your Major Professor and another portion to be completed by Kathy Redd and the Graduate Advisor.

11) Have your Thesis Committee review a draft of your thesis

12) Defend your thesis.

13) Provide Kathy Redd with a copy of your thesis for her to have bound for the program’s library.

CONTINUING FROM THE MASTER’S TO THE DOCTORATE
Students who are enrolled in the M.S. program may petition to pursue the Ph.D. degree. To do so, they must have the recommendation of the Executive Committee. Approval by the Executive Committee is not automatic; the Committee determines on a case-by-case basis whether a student has the academic potential to succeed in the Ph.D. program. For
further information on the process of petitioning to the Ph.D. program, please see the Graduate Student Affairs Officer.

**Satisfactory Academic Progress**
Normative time to the M.S. degree in CMDB is two years (six quarters). Normative time is defined as the period of full-time registration required to earn the degree, assuming that the student enters with a bachelor’s degree and has no course deficiencies or need to take any remedial work. As stated above, in the CMDB Program, the individual student’s program of study is planned first in consultation with the Director and Graduate Advisor, then in consultation with his or her Guidance Committee, which supervises the student’s progress prior to the appointment of the Thesis Committee. The Thesis Committee oversees the student’s progress in the final stages of his or her degree program.

For all students, evaluations of progress are carried out each spring/summer. Students meet with their Guidance or Thesis Committee, and the student’s Major Professor submits the Annual Research Progress Evaluation to the Graduate Advisor summarizing the discussion of the Committee. The Graduate Advisor is then responsible for making specific recommendations to the Graduate Division concerning the student’s progress. The Graduate Advisor may also approve exceptions to the normal time schedule occasioned by unusual circumstances. Students are provided with a copy of the annual evaluation, and copies are forwarded to the Graduate Division.

**Unsatisfactory Academic Progress**
It is expected that students will make good progress in the CMDB degree program. The Graduate Division will block registration of students who fail to perform satisfactorily. In addition, unsatisfactory academic progress severely limits opportunities for receiving funding through the Program. Students are considered to be making unacceptable progress when:

- they fail to fulfill program requirements in a timely and satisfactory manner.
- the overall GPA drops below the minimum level of 3.50 for fellowship recipients; 3.25 for those holding TA appointments, or 3.00 for non-supported students;
- they have 12 or more units of “I” grades.
- the Major Professor feels that the student is not making normal progress in the laboratory.
# TIME TABLE CHECKLIST FOR M.S. DEGREE

Name: ___________________________ Quarter entered degree program:____

Chair of Guidance Committee: ___________________________

Members of Guidance Committee: ___________________________

<table>
<thead>
<tr>
<th>Target Date</th>
<th>Date</th>
<th>Completed:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meet with Director and Graduate Advisor</td>
<td>1st quarter</td>
<td>__________</td>
</tr>
<tr>
<td>Select a Major Professor</td>
<td>2nd quarter</td>
<td>__________</td>
</tr>
<tr>
<td>Select a Guidance Committee</td>
<td>2nd quarter</td>
<td>__________</td>
</tr>
<tr>
<td>Plan and initiate research project</td>
<td>2nd quarter</td>
<td>__________</td>
</tr>
<tr>
<td>Meet with Guidance Committee</td>
<td>3rd quarter</td>
<td>__________</td>
</tr>
<tr>
<td>Annual Research Progress Evaluation</td>
<td>3rd quarter/summer</td>
<td>__________</td>
</tr>
<tr>
<td>Attend Research Symposium</td>
<td>Spring Quarter</td>
<td>__________</td>
</tr>
</tbody>
</table>

| Year 2      |            |            |
| Name Thesis Committee | 4th quarter | __________ |
| Present research results at Research Symposium | Fall Quarter | __________ |
| Submit thesis to Committee | 5th or 6th quarter | __________ |
| Meet with Thesis Committee | 6th quarter | __________ |
| Annual Research Progress Evaluation | 6th quarter/summer | __________ |
| File advancement to candidacy paperwork | 6th quarter | __________ |
| Present research results at Research Symposium | Spring Quarter | __________ |
| Defend thesis | final quarter | __________ |

Revised 09/13
M.S. Guidance Committee
Form to be completed by the end of the Second Quarter

Name: _______________________________________

Committee Members (Please Print Names)    Signatures

___________________________________
Major Professor

___________________________________

___________________________________

Approved:

Major Professor:___________________________  Date:_________________

Graduate Advisor:____________________________  Date:_________________
THE ACADEMIC PROGRAM (PH.D.)

To help you plan your program and monitor your progress, a Time Table checklist is located in the back of this section. The following list provides more detailed information on the steps you need to take to advance to candidacy.

The main goal of our program is to enable students to acquire modern perspectives and technical skills in Cell, Molecular and Developmental Biology and to foster initiative and imagination that will lead to productive careers in academia, government, and industry following graduation. The Ph.D. degree requires demonstration of broad knowledge in the area of Cell, Molecular, and Developmental Biology and substantive ability in original research.

The recommended normative time for completion of the Ph.D. degree requirements is fifteen quarters (5 years). During the 1st two years, emphasis is on coursework and completion of the qualifying examinations, as well as research. The remaining three years are devoted primarily to research and to the writing and defense of the dissertation, although students continue to participate in graduate seminars and may take additional coursework during this period.

Briefly, you are expected to achieve the following major goals during your time in the program: (1) complete core coursework by the end of your 1st year (see Section 3 for course checklist for Ph.D.), (2) pass the Written Qualifying Examination before the beginning of your second year, (3) prepare a research proposal, pass the Oral Qualifying Examination, and advance to candidacy by the start of the seventh quarter, and (4) produce and file your dissertation by the end of your fifteenth quarter.

The following is a guide to achieving these goals:

1) **Schedule a meeting with the Graduate Advisor soon after arriving at UCR.** The Graduate Advisor will design a course of study which will: (a) make up any course deficiencies; (b) meet the Program’s course requirements and (c) prepare the student for research in the student’s chosen area of specialization. The Graduate Advisor will also assist the student in the selection of an appropriate Major Professor. The Major Professor will serve as Chair of the student’s Guidance and Dissertation Committees and has the critical role of mentoring the student’s scientific development. The Major Professor provides the research facilities and the intellectual guidance required to complete the dissertation. Students may select a Major Professor any time during the 1st three quarters of enrollment.

2) **Begin rotations in labs that interest you.** Students are strongly urged to complete at least two, five-week rotations during their 1st academic year at UCR. If a student has already chosen a laboratory for his/her dissertation work, rotations are not necessary. If a student is uncertain about the laboratory for his/her dissertation research, laboratory rotations are helpful. During a rotation, students
spend time familiarizing themselves with research questions and techniques utilized in the laboratory of a CMDB faculty member. Rotation laboratories are chosen in consultation with the Director and Graduate Advisor and individual faculty members.

3) **Select a Guidance Committee** in consultation with your chosen Major Professor by the end of your second quarter

4) **Complete course requirements.** These include 3 core courses and 1 elective, plus two additional 2-unit graduate special topics seminars (from an approved list). CMDB 257 (a series of seminars presented by distinguished outside speakers) is offered every quarter and is combined with the Graduate Programs in MCBL and GGB. **Students are required to register for CMDB 257 each quarter it is offered.** CMDB 258, offered every spring quarter, gives credit to graduate students presenting their research results at the Annual Research Symposium. **Enrollment in CMDB 258 and participation in the Annual Research Symposium is required each year in residence.** First year students attend in spring of their first year and present in subsequent years to allow them more time to do research before their first presentation.

5) **Complete your teaching requirement.** A minimum of two quarters of service as a Teaching Assistant in cell, molecular, developmental or related-area courses is required regardless of whether financial support comes from Fellowship or Research Assistantships, etc. Teaching may be done at any time but it is recommended that it be done in the third or fourth years. All students are required to complete TA Training through the Teaching Assistant Development Program (TADP). Please see the TADP website for more information http://www.tadp.ucr.edu

6) **Complete the Qualifying Examinations.** The qualifying examination is given in two parts: written and oral. (See protocols on following pages)
Overview:

The CMDB doctoral program consists of two stages. The first interval is spent by the student fulfilling course requirements of the CMDB program and certain general requirements specified by the UCR Graduate Division. This phase is culminated by completion of the Written Portion of the Qualifying Examination before the start of the second academic year and completion of the Oral Portion of the Qualifying Examination before the end of the second academic year. When these requirements are met, the student is officially ‘advanced to candidacy’ for the Ph.D. The second stage of the program is devoted to independent study and research that will permit the student to write an acceptable dissertation. The doctoral dissertation must be an original research work in the candidate’s chosen area of specialization. The student’s Dissertation Committee will determine the acceptability of the dissertation. The Doctorate -- the highest degree the University of California can award -- is a research degree conferred on the recommendation of the Dissertation Committee which is nominated by the CMDB Program faculty in consultation with the student and officially appointed by the UCR Graduate Dean.

Written Portion of the Qualifying Examination Protocol:

Presented below is information on all phases of the CMDB Written Portion of the Qualifying Examination. This statement constitutes a formal policy of the Interdepartmental Graduate Program in Cell, Molecular and Developmental Biology at UCR, effective May 13, 2011

Scheduling of the Written Portion of the Qualifying Examination

The specific dates for the administration of the CMDB Written Portion of the Qualifying Examination will be announced by June 1 of each academic year; these dates are proposed by the faculty Chair of the Written Qualifying Examination and then approved by the CMDB Program Director. The exam is given on three consecutive days (usually Monday-Wednesday) in early September before the start of fall quarter classes. The overall administration, supervision and grading of the Written Portion of the Qualifying Examination is carried out by the faculty members of the Written Qualifying Examination Committee; the members of this committee are nominated by the Program Chair and approved by the CMDB Executive Committee.

Revised 09/13
The Written Qualifying Examination Committee.

The committee will consist of five (5) members made of three (3) faculty who are teaching in the three core CMDB courses (one each from CMDB200, CMDB201, CMDB202) and two faculty appointed by the Program Director who are members of the CMDB program and who currently have students enrolled in the program. The Program Director will appoint the Chair of the Committee. In cases where more than one instructor teaches one of the core courses, the instructors in this course will decide who will serve on the Examination Committee.

Description of the Written Portion of the Qualifying Examination

The CMDB Written Portion of the Qualifying Examination occurs annually over a 3 consecutive day interval in an early week of September. A four-hour period is allotted for the examination on each day, with the section on each day focused on one of the three principal disciplinary areas of CMDB. The schedule is typically that shown on the next page:

- Day 1 9 AM - 1 PM: Cell Biology section
- Day 2 9 AM - 1 PM: Molecular Biology section
- Day 3 9 AM - 1 PM: Developmental Biology section

Each student will be required to answer two questions (each usually consisting of several parts) in each of the three disciplinary areas. Each student will have some choice in selecting the two questions he/she will answer, since at least four questions will be offered in each disciplinary area.

The examination questions will be prepared by the Written Portion of the Qualifying Examination Committee assisted by other CMDB faculty who are willing to submit questions. Students scheduled to take the examination must NOT approach any of these faculty with questions concerning what might appear on the exam. Exam questions will be a natural outgrowth of the material taught in the core courses [CMDB 200, 201 and 202, or their equivalents from other departments] and that presented in the CMDB-257 annual seminar series; however the questions will not be specifically duplicating that material. Other major advances in cell, molecular and developmental biology as reported in the scientific literature (especially in the leading journals such as Nature and Science) may also be included in the exam material.

The written examination will be closed book. However, each student may bring and use a general English dictionary, or a general English/foreign language translation dictionary. Scientific or technical dictionaries are prohibited. Although examinees will use a computer to write their answers, access to the internet is strictly prohibited. Use of any other electronic device (except the provided computer) is prohibited.

Each student will write her/his examination using MS Word or comparable word-processing program on a computer in a designated computer laboratory on the UCR
campus. Typically, Watkins Hall room 2101 will be the designated computer laboratory. Answers to the questions must be typed, although hand-drawn figures can be used to supplement the text of the answer. At the end of the examination period each day, each student will print out their answers for that section of the examination on paper. Each question being answered must be clearly identified. The name of the student must not appear on the printed pages, but each printed page must show the last five digits of the UCR student identification number. In addition, each student must save and submit their answers on a floppy disk which is labeled with their UCR student identification number. The CMDB Program will provide flash drives.

Procedure used to grade the Written Portion of the Qualifying Examination:

The Written Portion of the Qualifying Examination has only two possible outcomes, either a Pass or a Fail.

The examinations will be graded by the faculty comprising the examination committee, assisted in some cases by other CMDB faculty who provided examination questions. Grading of each question will be done anonymously, i.e., the grader will not know the identity of the student who wrote the answer (each student is only identified by their student ID number). Each of the two answered questions in one of the three disciplinary areas [cell, molecular, or developmental biology] will be graded as either Pass or Fail, with no conditional or other intermediate outcomes. If a question is graded Fail by the grader, at least one additional faculty member shall independently grade the question, and the two proposed outcomes (Pass or Fail) shall be discussed by the entire official Written Examining Committee to reach a final decision as to whether the outcome for the question is a Fail or Pass.

A student will be considered to have passed the CMDB Written Portion of the Qualifying Examination if she/he receives the grade of Pass on at least five of the six questions (two questions in each of the three sections representing the disciplinary areas of Cell, Molecular, and Developmental Biology), which constitute the exam. If two or more of the six questions are graded Fail, then the student is considered to have Failed the Written Portion of the Qualifying Examination.

Each examinee will be notified in writing by the Chair of the Written Qualifying Examination Committee within 2 weeks of the finish date of the exam of their outcome. No appeals will be permitted. Examinees, however, may individually seek an appointment with the Chair of the Written Examination Committee to receive feedback about the quality of their exam performance and to see comments written by the graders of the exams.

Procedures When the Written Portion of the Qualifying Examination is Failed:

If a student fails in his/her first attempt at the Written Portion of the Qualifying Examination, the official Examining Committee shall determine whether the performance was such that the student should be allowed a second attempt at the examination. In most
cases, the Examining Committee will allow the second attempt. However, if the overall performance of the student has been very poor, the Examining Committee has the authority to deny a second attempt, in which case the student is not allowed to continue in the Ph.D. program.

No student will be allowed a third attempt to pass the Written Portion of the Qualifying Examination. If a student fails in her/his first attempt at the written portion of the qualifying examination, and is allowed a second attempt at the examination, and again fails, then the student is not allowed to continue in the Ph.D. program.

Students who fail in their first attempt at the written portion of the Qualifying Examination in September and who are allowed a second attempt, shall take their second written examination in the following January. The second examination will have the same general format and will be given under the same conditions as the first examination. That is, the examination will be closed book and given in three sections on three consecutive days with a four-hour period on each day focused on one of the three principal disciplinary areas of CMDB. Unlike the case with the first examination, however, students taking the examination the second time might not be required to take all three sections. Each student retaking the examination would take one, two, or all three sections, depending upon his/her performance on the first examination in September. If a student scored pass on both questions in a section (Cell, Molecular or Developmental) or in two sections in September, then those pass scores can be carried forward to January, and that section or two sections would not need to be retaken.

Grading of the second attempt at the Written Portion of the Qualifying Examination in January will be conducted in the same manner as with the first examination in September, and the standards for passing the examination will also be the same. That is, a student will be considered to have passed the CMDB Written Portion of the Qualifying Examination if she/he is graded Pass on at least five out of the six questions (two questions in each of the three sections representing the disciplinary areas of Cell, Molecular, and Developmental Biology). If two or more of the six questions are graded Fail, then the student is considered to have Failed the written portion of the Qualifying Examination. Depending upon the performance of the student in the September examination, however, the six graded questions might all be from the January retake or might be a combination of questions from the September and January examinations. The following examples illustrate some possible combinations for grading of the second examination.

**Example A:** Student A scores two passes in the Cell Biology section, one Pass and one Fail in the Molecular Biology section, and one Pass and one Fail in the Developmental Biology section in the September examination. With four Passes and two Fails on the September examination session, the overall result on the examination is Fail. Therefore the Examination Committee must decide whether it is appropriate to invite the student to a second round of the Written Examination in January. Student A is required to retake only the Molecular Biology and the Developmental Biology sections of the January examination. If the January retake result is two Passes in the Molecular Biology
section, and one Pass and one Fail in the Developmental Biology section, then with the
two Passes in Cell Biology from September carried forward, Student A now has five
Passes and one Fail, so the overall result on the second examination is a Pass.

Example B: Student B scores two Fails in the Cell Biology section, two Passes in the
Molecular Biology section, and two Passes in the Developmental Biology section in the
September examination. With four Passes and two Fails, the overall result on the
examination is Fail. Therefore the Examination Committee must decide whether it is
appropriate to invite the student to a second round of the Written Examination in January.
Student B is required to retake only the Cell Biology section of the January examination.
If the January retake result is one Pass and one Fail, then with the two passes in
Molecular Biology and the two passes in Developmental Biology from September carried
forward, Student B now has five Passes and one Fail, so the overall result on the second
examination is Pass.

Example C: Student C scores one pass and one fail in the Cell Biology section, one
pass and one fail in the Molecular Biology section, and one Pass and one Fail in the
Developmental Biology section in the September examination. With three Passes and
three Fails, overall the result on the examination is Fail. Accordingly, none of these
scores are carried forward, since there are not two Passes in any one disciplinary area.
Therefore the Examination Committee must decide whether it is appropriate to invite the
student to a second round of the Written Examination in January. In the January retake
exam, student C is required to retake all three sections of the examination. Suppose the
results on the January examination are two Passes in the Cell Biology section, one Pass
and one Fail in the Molecular Biology section, and two Passes in the Developmental
Biology section. With five Passes and one Fail, the overall result on the second
examination is Pass.

Example D: Student D scores one Pass and one Fail in the Cell Biology section, one
Pass and one Fail in the Molecular Biology section, and two Passes in the Developmental
Biology section in the September examination. With four Passes and two Fails, the
overall result on the examination is Fail. Therefore the Examination Committee must
decide whether it is appropriate to invite the student to a second round of the Written
Examination in January. In the January retake exam, student D is required to retake only
the Cell Biology and the Molecular Biology sections of the January examination. If the
result is two Passes in the Cell Biology section, and two Fails in the Molecular Biology
section, then with the addition of the two Passes in Developmental Biology from
September carried forward, Student D now has four Passes and two Fails, so the overall
result on the second examination is Fail. Student D automatically is not allowed to
continue in the Ph.D. program.

Example E: Student E scores two Fails in the Cell Biology section, two Passes in the
Molecular Biology section, and one Pass and one Fail in the Developmental Biology
section in the September examination. With three Passes and three Fails, the overall
result on the examination is Fail. Therefore the Examination Committee must decide
whether it is appropriate to invite the student to a second round of the Written
Examination in January. In the January retake, the student is required to retake only the Cell Biology and the Developmental Biology sections of the examination. If the result is one Pass and one Fail in the Cell Biology section, and one Pass and one Fail in the Developmental Biology section and the carry forward of the two Passes in Molecular Biology from September, Student E now has four Passes and two Fails, so the overall result on the second examination is Fail. Student E is automatically not allowed to continue in the Ph.D. program.

The Next Step When the Written Portion of the Qualifying Examination is Passed:

Upon passing the Written Portion of the Qualifying Examination, each student should begin writing a research grant proposal on her/his Ph.D. project with the aim of defending this proposal during the Oral Portion of the Qualifying Examination before the end of the student's second year in the CMDB doctoral program.
Overview:

The CMDB doctoral program consists of two stages. The student spends the first interval fulfilling course requirements of the CMDB program and certain general requirements specified by the UCR Graduate Division. This phase is culminated by completion of the Written Qualifying Examination before the start of the second academic year and completion of the Oral Qualifying Examination before the end of the second academic year. When these requirements are met, the student is officially ‘advanced to candidacy’ for the Ph.D. The second stage of the program is devoted to independent study and research that will permit the student to write an acceptable dissertation. The doctoral dissertation must be an original research work in the candidate’s chosen area of specialization. The student’s Dissertation Committee will determine the acceptability of the dissertation. The Doctorate -- the highest degree the University of California can award -- is a research degree conferred on the recommendation of the Dissertation Committee, which is nominated by the CMDB Program faculty in consultation with the student and officially appointed by the UCR Graduate Dean.

Oral Qualifying Examination:

The Oral Qualifying Examination is conducted by the Oral Qualifying Examination Committee acting on behalf of the UCR Graduate Division and in accordance with the formal regulations and requirements of the Cell Molecular and Developmental Biology Interdepartmental Graduate Program. The Oral Qualifying Examination is taken after successful completion of the Written Examination and should be scheduled to occur before the end of the second academic year. The focus of the Oral Examination will be a Research Proposal written by the student that s/he proposes to carry out for her/his Ph. D. dissertation. This document serves as a basis for examination and assessment by the Oral Qualifying Examination Committee of the following: (a) the ability of the student to write a concise and clearly written research proposal, (b) the student’s fundamental knowledge in the area of her/his research, (c) the student’s ability to identify a meaningful research project, (d) the student’s ability to design and carry out

1 See the UC Riverside Graduate Division’s Graduate Student Handbook: http://www.graduate.ucr.edu/
2 Domestic CMDB graduate students should plan to complete their Oral Qualifying exam no later than by the start of their third fall quarter (assuming that they matriculated in September). Foreign students who received Non Resident Tuition (NRT) support should complete the Oral Qualifying Examination by June 31st of their second year. Failure to do so may jeopardize or complicate NRT tuition costs for the fall quarter; see Ms. Kathy Redd or your Graduate Advisor for details.
productive meaningful research, and (e) the student’s sophistication in describing the scientific literature germane to the proposed project. The format of the Research Proposal will be based on NIH and NSF grant proposals; the specific details of the document are presented below. The Proposal should not exceed 12 pages. The student should also be prepared to answer questions on broader topics in the field of cell, molecular, and developmental biology, especially if any particular area of concern arising from the Written Qualifying Examination has been identified by a member of the Oral Qualifying Examination Committee.

The oral exam will be administered by an Oral Qualifying Examination Committee composed of five UCR faculty members. The student and her/his Major Professor nominate three members: the Chair of the Committee and one other faculty nominee must be CMDB members, and the third nominee is not a CMDB Participating Faculty member, and will be designated as the outside member3. The CMDB Executive Committee proposes two nominees from among its membership and finally all five members are officially approved by the CMDB Graduate Advisor4. The Oral Qualifying Committee must be nominated at least two months prior to the intended date of the Oral Qualifying Examination. The Graduate Dean has final authority to appoint the Oral Qualifying Exam Committee.

The Oral Examination must be held on a single day. A passing performance requires that no more than a single Committee member vote to fail. If a student fails the Oral Qualifying Examination, the Committee should make a recommendation either for or against a second examination. Ordinarily a second exam is not administered until at least three months have elapsed and within six months of the original exam. A third examination is not permitted5. A student who does not pass the oral qualifying exam may be dismissed from the program or may be allowed to complete a M.S. degree. The CMDB Executive committee, in consultation with the student’s Oral Qualifying Examination Committee, will determine if transfer to the M.S. program is recommended.

Specifications of the CMDB Student’s Research Proposal

The candidate’s Research Proposal should be prepared according to the following guidelines and include the stipulated A through G sections.

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3 The ‘outside’ member of the Oral Qualifying Committee must be a voting member of the UCR Academic Senate who does not hold an appointment as a CMDB Participating Faculty. This person represents the faculty at large and acts as a “third party ensuring fairness”.

4 The official Oral Qualifying Member Nomination form (a Graduate Division form) will be prepared by Ms. Kathy Redd in the Biological Sciences Graduate Student Affairs Center on behalf of the student, signed by the appropriate Graduate Advisor and forwarded to the Graduate Division.

5 See the UC Riverside Graduate Division’s Graduate Student Handbook: http://www.graduate.ucr.edu/
(a) The Proposal should not exceed 12 pages not counting the Title Page and the Literature Cited section. The space required for all figures and Tables is included in the 12 page limitation. The entire document should be typed single spaced in a 12 point font. The side, top and bottom margins should be set at 2.0 cm. Each page (including the title page) should be numbered consecutively in the bottom right corner. Each page, except the title page, should have a header that states in size 10 font, the student’s first and last name followed by the words “CMDB Research Proposal”, followed by the scheduled date of the Oral Qualifying exam; for example Scotty Bear, CMDB Research Proposal, March 25, 2007.

(b) The Title page should include the following information:

(i) The following Statement must be placed at the top of the Title page in a size 12, bold font ‘Research Proposal for CMDB Qualifying Examination on ‘month, ‘day’, ‘year’. This should be followed by the following items, spaced neatly down the Title page.

(ii) An informative title that captures the essence of the proposed research project; it should not have more than 120 characters + spaces and should be in a size 14, bold font.

(iii) The official UCR name of the Candidate.

(iv) The statement 'Major Professor’ followed by the name of the candidate’s Major Professor, followed by a signature line. Underneath the signature line the following should be typed “Approved for distribution”.

(v) The full name and departmental affiliation of each of the five members of the Oral Qualifying Examination Committee.

(c) Section A: titled HYPOTHESIS AND SPECIFIC AIMS; it is limited to one page that provides the following information:

(i) An Abstract (limited to 400 words) that includes the following:

(ii) A concise articulation of the dissertation’s overall objectives and the specific goal(s) of the research proposed, e.g., to create a novel experimental design, to solve a specific problem, or to address a specific barrier in your field. You may choose to formulate your own hypothesis. This information is then immediately followed on the same page by the following;

(iii) An explicit listing of the titles of the Specific Aims in Section D of your Research Proposal. These titles should exactly match (word for word) the wording that is contained in Section D of the research proposal.

(d) Section B: titled BACKGROUND; this section is limited to no more than three pages. This section should provide the following background information to the proposed Research Proposal.
(i) A brief review of the literature that is appropriate to bring the Committee members up to speed with the ‘state of the art’ of recent research in the general area of your research proposal.

(ii) Appropriate citation of the available literature in this area. See comments on the bibliography formatting below.

(iii) This section may include figures and tables as are deemed to be helpful; their area must be included in the six pages allowable for this section.

(iv) All Figures and Tables should be separately numbered, in sequence, throughout the entire document.

(v) Each Figure and Table must have a title, and, if needed, a legend that provides appropriate further description to assist the reader in understanding the figure/table; e.g. reference to experimental methodology, that may or may not require reference citation(s).

(e) Section C: titled SIGNIFICANCE OF THE PROPOSED RESEARCH. This section can be up to one page in length. In this section, the Candidate should include the following:

(i) A concise description of the background leading up to the Research Proposal,

(ii) A critical evaluation of existing knowledge and identification of the gaps that the project is intended to fill.

(iii) A description of the importance of the proposed research by relating the Specific Aims to the long-term direction of research in the field.

(f) Section D: titled RESEARCH DESIGN AND RESULTS OBTAINED TO DATE. It can be up to seven pages in length. It should include a layout in a logical fashion of the method of prosecution of the overall research objective being proposed for your Ph.D. dissertation and, also, it should include the preliminary data you have already obtained. The section should contain the following:

(i) This section should be subdivided into as many primary sub-sections as the Specific Aims that were listed in section A.

(ii) Each primary Specific Aim may be broken down into as many or few secondary sub-Specific Aims as the candidate feels appropriate or necessary for the experiments being proposed.

(iii) Each Aim and sub- Aim should provide some kind of Rationale statement, followed by a brief introduction and then a section titled Experimental design(s).

(iv) The presentation of Preliminary Data should include appropriate Tables with titles and brief legends and Figures and with figure titles followed by informative succinct legends.
(v) Remember that all figures and all tables should be separately numbered sequentially throughout the entire proposal.

(g) Section E: LITERATURE CITED; the pages of this section are not included in the page limitation of 12 pages.

(i) The literature citations should be formatted in a 10 point font and numbered consecutively in the order of their citation in the Research Proposal. They should be formatted as specified by the Journal of Cell Biology except that all authors names must be listed and should be in ‘bold; go to the following URL for detailed instructions http://www.jcb.org/misc/ifora.shtml#References

(h) Other information. The following standard sections of NSF and NIH grants should not be included in the candidate’s Research Proposal: Table of Contents; Budget Information, Biographical Sketches; Available space and equipment; Animal use assurances; Checklist, and Appendix.

(i) Approval of Research Proposal by your Major Professor.

(i) Prior to distribution of your Research Proposal to your Committee, you must obtain your Major Professor’s signature on the Title Page indicating that it is “Approved for distribution”.

(j) Distribution of final Research Proposal. After signature approval has been obtained, a hard copy of your proposal should be given to all members of the Qualifying Exam Committee at least two weeks (14 days) before the scheduled examination. Also, deliver one electronic copy of your Proposal to Ms. Kathy Redd (kathy.redd@ucr.edu) in the Biological Sciences Graduate Student Affairs Center at this time. At least one week before the Oral Qualifying Examination the chair of the committee will poll the committee members to determine if the quality of the submitted Research Proposal is of sufficient quality to allow the examination to proceed as scheduled. If there are concerns, then the chair will communicate these to the students and their Major Professor and they will reschedule the examination. The revised Research Proposal must then be resubmitted using the same schedule as described above. Students are only allowed one revision of the Research Proposal following which the Oral Exam will be held. Students are encouraged to speak with the Oral Qualifying Exam Committee Chair and members for advice on preparing for the exam.
SATISFACTORY ACADEMIC PROGRESS

Normative time to the Ph.D. degree in Cell, Molecular and Developmental Biology is fifteen quarters (five years). Normative time is defined as the period of full-time registration required to earn the degree, assuming that the student enters with a bachelor’s degree and has no course deficiencies or need to take any remedial work. As stated above, in the CMDB Program, the individual student’s program of study is planned in consultation with his or her Guidance Committee, which supervises the student’s progress prior to the appointment of the Dissertation Committee. After the student advances to candidacy, the Dissertation Committee oversees the student’s progress in the final stages of his or her degree program.

For all students, evaluations of progress are carried out each spring. Students meet with their Guidance or Dissertation Committee and the student’s Major Professor submits the Annual Research Progress Evaluation to the Graduate Advisor summarizing the discussion of the Committee. The Graduate Advisor is then responsible for making specific recommendations to the Graduate Division concerning the student’s progress. The Graduate Advisor may also approve exceptions to the normal time schedule occasioned by unusual circumstances. Students are provided with a copy of the annual evaluation, and copies are forwarded to the Graduate Division.

UNSATISFACTORY ACADEMIC PROGRESS

It is expected that students will make good progress in the CMDB degree program. The Graduate Division will block registration of students who fail to perform satisfactorily. In addition, unsatisfactory academic progress severely limits opportunities for receiving funding through the Program. Students are considered to be making unacceptable progress when:

- they fail to fulfill program requirements such as exams or research in a timely and satisfactory manner.
- the overall GPA drops below the minimum level of 3.50 for fellowship recipients, 3.25 for those holding TA appointments, or 3.00 for non-supported students;
- they have 12 or more units of “I” grades.
- the Major Professor feels that the student is not making normal progress in the laboratory.
TIME TABLE CHECKLIST FOR Ph.D. DEGREE

Name: ___________________________ Quarter entered degree program:_____

Chair of Guidance Committee: ______________________________

Members of Guidance Committee: ______________________________

<table>
<thead>
<tr>
<th>Target Date</th>
<th>Date Completed</th>
</tr>
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**Year 1**

- Meet with the Director and Graduate Advisor: 1st quarter

- Do Rotations: 1st – 2nd qtr

- Select Major Professor and establish Guidance Committee: 1st – 2nd qtr
  (Form available at http://cmdb.ucr.edu/current-students.html)

- Meet with Guidance Committee: Spring /Summer
  (Annual Research Progress Evaluation)

**Year 2**

- Take written qualifying exam: Fall

- Present research results at Research Symposium: Fall Quarter

- Nominate Oral Qualifying Exam Committee: Fall or Winter Qtr.
  (Form available at http://cmdb.ucr.edu/current-students.html)

- Research Proposal to Committee: Winter or Spring

- *Take oral qualifying exam: Before the 7th quarter

- Meet with Guidance/Dissertation Committee: Spring /Summer
  (Annual Research Progress Evaluation)

- Present research results at Research Symposium: Spring Quarter

Revised 09/13
### Year 3
Meet with Guidance/Dissertation Committee (Annual Research Progress Evaluation)  
Spring/Summer

Present research results at Research Symposium  
Spring Quarter

### Year 4
Meet with Guidance/Dissertation Committee (Annual Research Progress Evaluation)  
Spring/Summer

Present research results at Research Symposium  
Spring Quarter

### Year 5
Write Dissertation  
All quarters

Meet with Guidance/Dissertation Committee (Annual Research Progress Evaluation)  
Spring/Summer

Present research results at Research Symposium  
Spring Quarter

Publicly Defend Dissertation  
Final Quarter
IMPORTANT PROGRAM INFORMATION

**Annual Research Symposium:** Each spring the program sponsors a Research Symposium to give CMDB students an opportunity to present short (15-minute) talks on their research projects. **All 2-5 year students in the program are required to make a presentation and all students are expected to be present for the entire duration of the symposium.** CMDB 258, offered every spring quarter, gives credit to graduate students presenting their research results at the Annual Research Symposium. Meals are provided for attendees. Awards are given to students presenting the best papers.

**The CMDB Graduate Student Association (CMDB-GSA):** Every CMDB graduate student is automatically a member of the CMDB Graduate Student Association (CMDB-GSA). The CMDB-GSA serves several purposes, such as promoting interactions among the graduate students, providing information about the program and the university to the graduate students, and representing graduate student concerns to the faculty and other campus organizations. Students become better acquainted with each other and with the CMDB faculty during social events that the CMDB-GSA organizes. CMDB-GSA is governed by an elected student advisory committee, which is composed of one representative from the first year students, one from the second year students, and three from the students third year and up. One student from this committee serves as the chair, and acts as a liaison between the faculty and the graduate students, both by disseminating information to the students and by soliciting student opinions regarding programmatic issues and policies. The CMDB-GSA facilitates unified action of the graduate students regarding issues that affect them. Issues of interest to our students are discussed during meetings held at least once per quarter, and these concerns are brought to the faculty’s attention when appropriate. The CMDB-GSA also sends representatives to Graduate Student Association (GSA) meetings, who then report back to the other members.

**Keys:** When you have selected a Major Professor, you will be able to obtain keys to access the building and rooms which you will be using. Your Major Professor will help you with this process.

**Mailboxes:** Graduate students are assigned mailboxes in their Major Professor’s mailroom. Please see the Student Affairs Officer in Bio Sci Grad Student Affairs to locate your mailbox. The mail is delivered twice a day, in the morning and afternoon. It is very important to check your box daily.

Revised 09/13
FINANCIAL SUPPORT

Students admitted to the Ph.D. typically receive financial support for 5 years. During the first year, the main sources of graduate student support are Fellowships and Graduate Student Research Assistantships obtained through the Program. After the first year, the majority of a student’s financial support comes from Graduate Student Research Assistantships obtained through research grants awarded to the Major Professor and Teaching Assistantships. Students who enter the Ph.D. program with strong undergraduate records are encouraged to apply for National Science Foundation, Howard Hughes Medical Institute, or other extramural fellowships. Students who have Advanced to Candidacy are also encouraged to pursue extramural fellowship funding. Other support is available through a variety of University, State, and Federal sources.

Important FAFSA Information: Fellowship/Grant awards are paid from a variety of funding sources, some of which require socioeconomic and parental educational history and financial data. Students who accept fellowship and/or grant awards are required to complete the Free Application for Federal Student Aid (FAFSA). FAFSA electronic filing is available at: www.FAFSA.ed.gov. If you expect to receive financial support from UCR, you must file FAFSA every year (after you’ve prepared your federal tax return). Continuing International Students are also be required to complete FAFSA.

Graduate Student Research Assistantships (GSRs): These positions are supported either with funds that come from the Program or from the Major Professor’s grant. Students with GSRs receive a partial remission of fees and payment of the Graduate Student Health Insurance Program Fee.

Teaching Assistantships (TAs): The type of work involved in TAing varies according to the class assigned. When a student is appointed as a TA, they receive a detailed letter explaining the duties for the position. Students with Teaching Assistantships receive a partial remission of fees and payment of the Graduate Student Health Insurance Program Fee.

NOTE: TAs and GSRs must be making acceptable progress toward their degree objective, must be advanced to candidacy within 12 quarters after entry, and must have fewer than 8 units of Incomplete grades. In addition, TAs must maintain a 3.25 GPA; GSRs must maintain a 3.00 GPA.

Summer support: Students in the Program are normally supported by their Major Professor during the summer.

Dissertation Research Grants provide funds to doctoral candidates for research expenses associated with the dissertation. Applicants must be advanced to candidacy and plan to be registered during the period of the award. Proposals may be funded up to a maximum of $1,000. These funds may not be used for preparing the dissertation copy or

Revised 09/13
Graduate Student Association (GSA) Minigrants help to pay the travel expenses of students who have been invited to present scholarly papers or posters at regional and national professional conferences. The program is administered by the Graduate Student Association and requires that Departments or Graduate Programs agree to provide matching funds. Contact the GSA, at x83740 or http://www.gsa.ucr.edu/, or the Graduate Student Affairs Officer for mini-grant applications.

EXTRAMURAL SUPPORT

In addition to the fellowships, assistantships, grants, and loans administered by the University, graduate students may also be eligible for other types of support provided by federal agencies and private foundations. Organizations that have awarded fellowships and research support to UCR students include the National Science Foundation, National Institutes of Health, U.S. Public Health Service, U.S. Department of Education, Fulbright Program, Phi Beta Kappa Alumni Scholarships for International Scholars, and Sigma Xi. If students wish to explore these sources of support for study, they should consult the Annual Register of Grant Support and other similar directories either at the reference department of the library or through the Financial Support section in the Graduate Division. There are also many sites on the Web devoted to various sources of aid for graduate students.