Master’s Degree Requirements

1) Admissions requirements:
Consideration for program admission requires a bachelor’s degree, three letters of recommendation, official transcripts from all college-level coursework, GRE general test scores, TOEFL or IELTS score (if applicable), and the Office of Graduate Studies online application with fee by the stated deadline. A minimum GPA of 3.0 is required. We do not have a minimum GRE score, but most of our successful applicants score above the 70th percentile in the verbal and quantitative portions.

Applicants are strongly encouraged to communicate with potential research advisers (major professors) prior to admission to the program. It is essential that prospective students contact faculty in the Plant Pathology Department whose laboratories are conducting research in areas of Plant Pathology that the student wishes to pursue, in order to introduce themselves and inquire about faculty willingness to accept a new student in this degree program. This process of communicating with potential major professors should begin in the Fall, prior to the relevant applications deadline. Applicants should take the initiative to inquire about future research directions of laboratories, exchange research ideas with potential major professors, and make every effort to identify viable possibilities. While formal acceptance into a research group cannot occur prior to admission, contacts should be far-enough developed such that at least tentative identification of a research adviser can be made as soon after the time of admission as possible.

a) Prerequisites:

In addition to the admission requirements stated above, applicants are expected to have passed the equivalent of the following UC Davis courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 2A/B</td>
<td>General Chemistry</td>
<td>5 units</td>
</tr>
<tr>
<td>CHE 118A/B/C</td>
<td>Organic Chemistry</td>
<td>4 units</td>
</tr>
<tr>
<td>MIC 104</td>
<td>General Microbiology</td>
<td>4 units</td>
</tr>
<tr>
<td>STA 10</td>
<td>Statistical Thinking</td>
<td>4 units</td>
</tr>
<tr>
<td>PHY 7A/B</td>
<td>General Physics</td>
<td>4 units</td>
</tr>
<tr>
<td>MAT 17 A/B</td>
<td>Calculus</td>
<td>4 units</td>
</tr>
<tr>
<td>PLB 111</td>
<td>Plant Physiology</td>
<td>3 units</td>
</tr>
<tr>
<td>BIS 2 A/B/C</td>
<td>Intro to Biology</td>
<td>5 units</td>
</tr>
<tr>
<td>BIS 101</td>
<td>Genes and Gene Expression</td>
<td>4 units</td>
</tr>
<tr>
<td>Or MCB 121</td>
<td>Adv. Molecular Biology</td>
<td>3 units</td>
</tr>
<tr>
<td>BIS 102</td>
<td>Structure/function of biomolecules</td>
<td>3 units</td>
</tr>
<tr>
<td>or MCB 126</td>
<td>Plant Biochemistry</td>
<td>3 units</td>
</tr>
</tbody>
</table>

b) Deficiencies:

Incoming students must consult with their graduate adviser and major professor to determine if all undergraduate prerequisites have been fulfilled. Course work deficiencies should be made up by the end of the first academic year following initial enrollment by earning a letter grade of “B” or better.
2) **M.S. Plan I, II**

**Plan I.** The student must complete at least a total of 30 units of upper division undergraduate and graduate courses (includes the plant pathology required courses; 12 units must be strictly graduate work) and submit and gain approval of a master's thesis.

**Plan II.** The student must complete at least 36 units of upper division undergraduate and graduate courses (18 units must be graduate courses in the major subject and no more than 9 of the 18 units may be from research courses (299)). No thesis is required, but the student must pass a comprehensive final examination that is administered by a committee of 3 faculty members (one of whom is the major professor). This committee is nominated by the graduate adviser and formally appointed by the Chair of the Graduate Council.

3) **Course Requirements - Core and Electives (total 28 units)**

**Core Courses (total 13 units)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLP 120</td>
<td>Introduction to Plant Pathology</td>
<td>4</td>
</tr>
<tr>
<td>PLP 201A</td>
<td>Advanced Plant Pathology and Epidemiology</td>
<td>4</td>
</tr>
<tr>
<td>PLP 298</td>
<td>Grant writing and Professionalism in Plant Sciences</td>
<td>1</td>
</tr>
<tr>
<td>PLP 210</td>
<td>Biochemistry and molecular biology of Plant-Microbe Interaction</td>
<td>4</td>
</tr>
</tbody>
</table>

**Restricted Elective Courses (total 8-9 units)**

Pathogen courses (minimum 2 courses):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLP 224</td>
<td>Pathogenic Fungi</td>
<td>3</td>
</tr>
<tr>
<td>PLP 228</td>
<td>Plant Bacteriology</td>
<td>3</td>
</tr>
<tr>
<td>PLP 230</td>
<td>Plant Virology</td>
<td>3</td>
</tr>
<tr>
<td>NEM 204</td>
<td>Management of Plant-Parasitic Nematodes</td>
<td>2</td>
</tr>
</tbody>
</table>

Additional required courses (4 units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLP 298</td>
<td>Advanced Plant Pathology Lab</td>
<td>3</td>
</tr>
<tr>
<td>PLP 290</td>
<td>Department Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

**Required Field Courses (3 units)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLP 205</td>
<td>Field Plant Pathology</td>
<td>3</td>
</tr>
</tbody>
</table>

All MS students must enroll in the Plant Pathology Departmental general seminar (PLP 290) each quarter unless there is a scheduling conflict with another course.

**Summary:** Students must complete 17 units of required courses, at least 8 units of restricted elective courses (including 2 pathogen courses), and one field course of 3 units. In addition, students must enroll in at least one offering of the other special Plant Pathology seminars (e.g. PLP 290, PLP 292, PLP 293, PLP 298, etc.) during each year of their enrollment in graduate school. It may be possible to satisfy this requirement by enrolling in another participatory seminar course offered by another Department; discuss this with your Advisor. These special seminars vary in topic and availability and will be announced in communications to graduate students one or two quarters in advance of their presentation and by publication in the UC Davis Class Schedule and Registration Guide. Full-time students must enroll for 12 units per quarter including research, academic and seminar units. Courses that fulfill any of the program course requirements may not be taken S/U unless the course is normally graded S/U. Once course requirements are completed, students can take additional classes as needed, although the 12 units per quarter are generally fulfilled with a research class (299) and perhaps seminars. Per UC regulations students cannot enroll in more than 12 units of graduate level courses (200) or more than 16 units of combined undergraduate and graduate level (100, 200, 300) courses per quarter. Students working toward a master's degree must be registered and on campus for
at least 3 quarters. The targeted time frame for the completion of the master's degree is 6 quarters (2 years).

*Note: The university defines 'in residence' as being students who are registered in regular university courses for at least four units of upper division or graduate courses in a quarter, or for at least two units of such work in two sessions of Summer Session.

4) Special Requirements: None

5) Committees:
   a) **Graduate Affairs Committee**
      Once the completed application and all supporting materials have been received, the application will be submitted to the Graduate Affairs Committee to review. If it is deemed academically admissible, it will be distributed to the faculty at large for review. Faculty may request an applicant be offered a campus visit and in-person interview before making an offer of admission. Based on review by the Committee and the faculty, a recommendation to accept or deny admission will be send to the Dean of Graduate Studies. Applications are accepted from September through January for Fall of the following year.

   b) **Guidance Committee** This committee, composed of the major professor and two other professors familiar with the proposed area of research, is to be appointed for each PhD and MS student no later than the third quarter of the first year. A fourth member may be added with justification. The membership of the guiding committee will be determined in consultation with the Thesis Advisor and the Graduate Advisor (assigned). The purpose of the guidance committee is to provide research mentorship early in the student’s tenure. You are encouraged to meet with members of your guiding committee as often as needed. The entire committee should meet at least once during your first year and, for a PhD student, twice prior to your qualifying examination.

   c) **Thesis Committee or Comprehensive Examination Committee**
      After the student has selected a research topic, the guiding committee is dissolved and is replaced by the thesis committee. Your Thesis Advisor (usually the student’s Major Professor) is the chairperson of your thesis committee. The members of the committee are appointed in consultation with your Thesis Advisor and Graduate Advisor. Typically, the thesis committee has two faculty members of the Plant Pathology Graduate Program in addition to the thesis advisor but may be constituted with faculty member(s) from outside the Program and may have up to four members. The student should meet with the thesis committee at least once a year until the requirements for the degree have been satisfied. For students on Plan II, the Comprehensive Examination Committee is selected by the student in collaboration with the Major Professor, who serves as Chair of the Committee.

6) Advising Structure and Mentoring:

   The Major Professor is the faculty member who supervises the student’s research and thesis; this person serves as the Chair of the Thesis or Examination Committee. The Graduate Adviser, who is appointed by Graduate Studies and determined by the program, is a resource for information on academic requirements, policies and procedures, and registration information until the Course Guidance Committee is formed. The **Graduate Program Coordinator (staff)** assists students with identifying a major professor, identifying appointments, and general university policies. The **Mentoring Guidelines** can be found in the graduate student handbook, which is distributed to each student before entering the program.
7) Advancement to Candidacy:

Every student must file an official application for Candidacy for the Degree of Master of “____” and pay the Candidacy Fee after completing one-half of their course requirements and at least one quarter before completing all degree requirements; this is typically the 4th or 5th quarter. The Candidacy for the Degree of Master form can be found online at: http://www.gradstudies.ucdavis.edu/forms/. A completed form includes a list of courses the student will take to complete degree requirements. If changes must be made to the student’s course plan after s/he has advanced to candidacy, the Graduate Adviser must recommend these changes to Graduate Studies. Students must have their Graduate Adviser and committee Chair sign the candidacy form before it can be submitted to Graduate Studies. If the candidacy is approved, the Office of Graduate Studies will send a copy to: the appropriate Graduate Program Coordinator and the student; the Thesis Committee Chair will also receive a copy, if applicable. If the Office of Graduate Studies determines that a student is not eligible for advancement, the program and the student will be told the reasons for the application’s deferral. Some reasons for deferring an application include: grade point average below 3.0, outstanding “I” grades in required courses, or insufficient units.

8) Comprehensive Examination and/or Thesis Requirements:

a) Thesis Requirements (Plan I):

Thesis committee meetings: The student should meet with the thesis committee at least once a year until the requirements for the degree have been satisfied.

Thesis: Research for the Master's thesis is to be carried out under the supervision of a faculty member of the program and must represent an original contribution to knowledge in the field. The thesis research must be conducted while the student is enrolled in the program. The thesis is submitted to the thesis committee at least one month before the student plans to make requested revisions. All committee members must approve the thesis and sign the title page before the thesis is submitted to Graduate Studies for final approval. Should the committee determine that the thesis is unacceptable, even with substantial revisions, the program may recommend to the Dean of Graduate Studies that the student be disqualified from the program.

The thesis must be filed in a quarter in which the student is registered or on filing fee. Instructions on preparation of the thesis and a schedule of dates for filing the thesis in final form are available from Graduate Studies; the dates are also printed in the UC Davis General Catalog and in the Class Schedule and Registration Guide issued each quarter. A student must have a GPA of 3.0 for the M.S. degree to be awarded.

b) Comprehensive Examination (Plan II):

The comprehensive examination consists of an oral exam by the student’s Comprehensive Examination Committee. The scope of the oral exam is the candidate’s coursework as well as the project work. Once passed, the Master’s Report Form is signed by the Program Graduate Adviser and then forwarded to the Office of Graduate Studies. The deadlines for completing this requirement are listed each quarter in the campus General Catalog (available online at the website of the Office of the Registrar). A candidate must be a registered student or in Filing Fee status at the time the program submits the form, with the exception of the summer period between the end of the Spring Quarter and the beginning of Fall Quarter. The program must file the report with Graduate Studies within one week of the end of the quarter in which the student’s degree will be conferred.

i) Timing: Students may take the comprehensive examination once they have advanced to candidacy. However, it is important that the timing of the exam satisfy the regulations as noted in the CCGA
handbook\(^1\), which indicates that the capstone requirement be completed at or near the end of the coursework for the Master’s degree. The Graduate Council provides several examples of options for 2-year Master’s degree programs that meet the capstone requirement for a Master’s Plan II degree ([https://gradstudies.ucdavis.edu/sites/default/files/upload/files/grad-council/uc-davis-graduate-council-policy-capstones-gc2012-02.pdf](https://gradstudies.ucdavis.edu/sites/default/files/upload/files/grad-council/uc-davis-graduate-council-policy-capstones-gc2012-02.pdf)).

**ii) Outcome:** Please note that if a student does not pass the exam on the first attempt, the committee may recommend that the student be reexamined one more time, but only if the Graduate Adviser concurs with the committee. The examination may not be repeated more than once. Please note that Graduate Studies requires the Exam committee’s unanimous vote to pass a student on the exam. Please note that a student who does not pass on the second attempt will be recommended for disqualification from further graduate work in the program to the Dean of Graduate Studies.

9) **Normative Time to Degree:** Normative time to degree is 2 to 3 academic years, or 9 quarters. Normative time to Candidacy is 2 years or 8 quarters.

10) **Typical Time Line and Sequence of Events:**

<table>
<thead>
<tr>
<th>Year One</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PLP 120 Intro. to Plant Pathology</td>
<td>PLP 201A Adv. Plant Pathology</td>
<td>PLP 230 Virology</td>
</tr>
<tr>
<td></td>
<td>PLP 299 Seminar</td>
<td>PLP 228 Bacteriology</td>
<td>NEM 204 Mgmt of Plant-Parasitic Nematodes</td>
</tr>
<tr>
<td></td>
<td>PLP 298 Seminar</td>
<td>200 level seminar</td>
<td>PLP 205 Diseases of Veg. Crops</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year Two</th>
<th>Fall</th>
<th>Winter advancement to MS candidacy</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NEM 206</td>
<td>PLP 210</td>
<td>Comprehensive Exam or Thesis finished</td>
</tr>
<tr>
<td></td>
<td>200 level course</td>
<td>200 level course</td>
<td>299 units</td>
</tr>
<tr>
<td></td>
<td>200 level course</td>
<td>290 Seminar</td>
<td>290 Seminar</td>
</tr>
</tbody>
</table>

11) **Sources of funding**

Students are generally provided with support through Graduate Student Research positions with their Major Professor, which provides full fee remission and a living stipend. Students can also obtain funding in the form of internal/external fellowships and TAships.

12) **Sources of funding PELP, In Absentia and Filing Fee status.**

Information about PELP (Planned Educational Leave), In Absentia (reduced fees when researching out of state), and Filing Fee status can be found in the Graduate Student Guide: [http://gradstudies.ucdavis.edu/students/handbook/GS201_GraduateStudentGuide.pdf](http://gradstudies.ucdavis.edu/students/handbook/GS201_GraduateStudentGuide.pdf).

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\(^1\) Appendix K, page 34, of [http://www.universityofcalifornia.edu/senate/committees/ccga/ccgahandbook.pdf](http://www.universityofcalifornia.edu/senate/committees/ccga/ccgahandbook.pdf)
1) **Admissions Requirements:**
Consideration for program admission requires a bachelor’s degree, three letters of recommendation, official transcripts from all college-level coursework, GRE general test scores, TOEFL or IELTS score (if applicable), and the Office of Graduate Studies online application with fee by the stated deadline. A minimum GPA of 3.0 is required. We do not have a minimum GRE score, but most of our successful applicants score above the 70th percentile in verbal and quantitative scores.

Applicants are strongly encouraged to communicate with potential research advisers (major professors) prior to admission to the program. It is essential that prospective students contact faculty in the Plant Pathology Department whose laboratories are conducting research in areas of Plant Pathology that the student wishes to pursue, in order to introduce themselves and inquire about faculty willingness to accept a new student in this degree program. This process of communicating with potential major professors should begin in the Fall, prior to the relevant applications deadline. Applicants should take the initiative to inquire about future research directions of laboratories, exchange research ideas with potential major professors, and make every effort to identify viable possibilities. While formal acceptance into a research group cannot occur prior to admission, contacts should be far-enough developed such that at least tentative identification of a research adviser can be made as soon after the time of admission as possible.

a) **Prerequisites:**
In addition to the admission requirements stated above, applicants are expected to have passed the equivalent of the following UC Davis courses:

- **CHE 2A/B** General Chemistry 5 units
- **CHE 118A/B/C** Organic Chemistry 4 units
- **MIC 104** General Microbiology 4 units/3 unit lab
- **STA 10** Statistical Thinking 4 units
- **PHY 7A/B** General Physics 4 units
- **MAT 17 A/B** Calculus 4 units
- **PLB 111** Plant Physiology 3 units
- **BIS 2 A/B/C** Intro to Biology 5 units
- **BIS 101** Genes and Gene Expression 4 units
- Or **MCB 121** Adv. Molecular Biology 3 units
- **BIS 102** Structure/function of biomolecules 3 units
- Or **MCB 126** Plant Biochemistry 3 units

b) **Deficiencies:**
Incoming students must consult with their graduate adviser and major professor to determine if all undergraduate prerequisites have been fulfilled. Course work deficiencies should be made up by the end of the first academic year following initial enrollment by earning a letter grade of “B” or better.
2) **Dissertation Plan:**

**Plan B.** Specifies a three member (minimum) dissertation committee, an optional final oral examination (made on an individual student basis by the dissertation committee), and a mandatory exit seminar.

**C.Phil. – The Candidate in Philosophy Degree:** We do not offer this option.

3) **Course Requirements - Core and Electives (total 25 units)**

**Core Courses (total 13 units)**
- PLP 120 Introduction to Plant Pathology 4 units
- PLP 201A Advanced Plant Pathology and Epidemiology 4 units
- PLP 298 Grantwriting Course “Professionalism in Plant Sciences” 1 unit
- PLP 210 Biochemistry and molecular biology of Plant-Microbe Interaction 4 units

**Elective Courses (total 6 units)**
- Two out of three pathogen courses:
  - PLP 224 Pathogenic Fungi 3 units
  - PLP 228 Plant Bacteriology 3 units
  - PLP 230 Plant Virology 3 units
- Unrestricted electives (3-5 units)
  - PLP 210 Plant Microbe Interactions 3 units
  - NEM 204 Management of Plant-Parasitic Nematodes 2 units
  - PLP 298 Advanced Plant Pathology Lab 3 units
  - PLP 290 Department Seminar 1 unit

**Elective Field Courses (3 units)**
- One of the field courses:
  - PLP 205 – Field Plant Pathology 3 units

Summary: All PhD students must enroll in the Plant Pathology Departmental general seminar (290) each quarter, unless there is a conflict.

All PhD students who have not passed their qualifying examination for the PhD must enroll in at least one offering of the other special Plant Pathology seminars (e.g. PLP 291, 292, 293, etc.) during each year of their enrollment in graduate school. It may be possible to satisfy this requirement by enrolling in another participatory seminar course offered by another Department; discuss this with your Advisor. These special seminars vary in topic and availability and will be announced in communications to graduate students one or two quarters in advance of their presentation and by publication in the UC Davis Class Schedule and Registration Guide.

All PhD students must complete two additional upper division or graduate level courses on topics related to their research objectives. These courses are to be selected in consultation with their Thesis Advisor and Faculty Advisor. Areas that a student may consider include, but are not limited to, agronomy, biochemistry, bioinformatics, biology and molecular biology of plant pathogens and host-pathogen interactions, biometeorology, ecology and epidemiology of plant disease, etiology and management of plant diseases, genetics, genomics, geographic information systems, hydrology, metabolomics, microbiology, nematology, plant physiology, proteomics, pest
control practices, recombinant DNA and transgene expression, soil science, statistics, systems
analysis, and viticulture and enology.

4) Special Requirements:

Each student is required to be a teaching assistant (TA) for at least one quarter. This requirement
can be satisfied with a 25% or 50% appointment. Students can approach instructors directly
regarding the possibility of being a TA for a specific course, but the final decision rests with the
Department Curriculum Committee. The Department reserves the right to have a student TA for
more than one quarter depending on the circumstances. Students also can be TAs in courses
outside of the Plant Pathology Department; however, they should consult their major professor
and graduate adviser before accepting such a position.

Students working toward a PhD must be registered and in university residence for a minimum of
six regular quarters. Two consecutive regular Summer Sessions can be substituted for one regular
quarter if two units are taken in each Summer Session. The normative time to complete a Ph.D.
ranges from 4-6 years and is measured from the time a student begins graduate study at UC
Davis. Up to three quarters of non-registered status is allowed.

5) Committees:

**Graduate Affairs Committee:**

Once the completed application and all supporting materials have been received, the application
will be submitted to the Graduate Affairs Committee to review. If it is deemed academically
admissible, it will be distributed to the faculty at large for review. Faculty may request an
applicant be offered a campus visit and in-person interview before making an offer of
admission. Based on review by the Committee and the faculty, a recommendation to accept or
deny admission will be send to the Dean of Graduate Studies. Applications are accepted from
September through January for Fall of the following year.

**Guidance Committee** This committee is composed of the major professor and two other
professors familiar with the proposed area of research, is to be appointed for each PhD and MS
student no later than the third quarter of the first year. A fourth member may be added with
justification. The membership of the guiding committee will be determined in consultation with
the Thesis Advisor and the Graduate Advisor (assigned). The purpose of the guidance
committee is to provide research mentorship early in the student’s tenure. You are encouraged
to meet with members of your guiding committee as often as needed. The entire committee
should meet at least once during your first year and, for a PhD student, twice prior to your
qualifying examination.

**Qualifying Examination Committee:**

The qualifying exam committee consists of 5 members. Four must be faculty members in the
Plant Pathology Graduate Program, one of whom serves as the chairperson. One member may
be from outside the program (e.g., a faculty member from another UC Davis department or a
faculty member from another institution). The student’s Thesis Advisor cannot serve on the
qualifying exam committee. Four of the five committee members will be identified by the
student in consultation with his/her major professor and Graduate Advisor. The Graduate
Advisor will present the proposed qualifying exam committee to the Graduate Affairs
Committee, which will approve it or recommend changes. The Graduate Affairs Committee
will also be responsible for identifying the fifth member of the qualifying exam committee
based, in part, on the relative frequency of service among faculty members and the balance and
breadth of expertise of the committee. Once the qualifying exam committee has been approved
by the Graduate Affairs Committee, it is forwarded to Graduate Studies, wherein the Dean of
Graduate Studies or his/her designee is responsible for final approval.
**Dissertation Reading Committee:**
The Dissertation Committee is a three-member committee identified by the student, in consultation with the Major Professor. The majority of the committee should be from the program. The composition of the dissertation committee is entered on the Advancement to Candidacy Form and submitted to Graduate Studies for formal appointment in accordance with Graduate Council policy. The role of the Dissertation Committee is to advise the doctoral student on the research topic and methods, and then to review the final completed dissertation for acceptance. The Committee Chairperson (usually the Major Professor) should determine the desires of the individual members regarding assistance with the research and dissertation review at the time the dissertation committee is constituted. Students are expected to meet with the Chair of their dissertation committee regularly. Dissertation committee members are expected to read and comment on a dissertation within four weeks from its submission. This time limit policy does not apply to summer periods for faculty holding nine-month appointments. The student and faculty will coordinate a timeline for the student to present the thesis to the dissertation committee. This timeline must allow all dissertation committee members enough time to fulfill their responsibilities within the four-week deadline.

6) **Advising Structure and Mentoring:**
The **Major Professor** is the faculty member who supervises the student’s research and dissertation; this person serves as the Chair of the Dissertation Committee. The **Graduate Adviser**, who is appointed by the Dean of Graduate Studies, is a resource for information on academic requirements, policies and procedures, and registration information until the Course Guidance Committee is formed. The **Graduate Program Staff** assists students with identifying a major professor, identifying appointments, and general university policies. The **Mentoring Guidelines** can be found on the Plant Pathology graduate program website: [http://plantpathology.ucdavis.edu/Graduate_Program/Advising/#guidecom](http://plantpathology.ucdavis.edu/Graduate_Program/Advising/#guidecom)

7) **Advancement to Candidacy:**
Before advancing to candidacy for a doctoral degree, a student must have satisfied all requirements set by the graduate program, must have maintained a minimum GPA of 3.0 in all course work undertaken (except those courses graded S or U), and must have passed a Qualifying Examination before a committee appointed to administer that examination. Normally, students advance by the end of the 9th quarter. The student must file the appropriate paperwork with the Office of Graduate Studies and pay the Candidacy Fee in order to be officially promoted to Ph.D. Candidacy. Refer to the Graduate Council website for additional details regarding the Doctoral Qualifying Examination at [http://gradstudies.ucdavis.edu/gradcouncil/policiesall.html](http://gradstudies.ucdavis.edu/gradcouncil/policiesall.html).

8) **Qualifying Examination and Dissertation requirements:**
The purpose of the qualifying examination is to determine if the student has the intellectual capacity and preparation necessary to successfully conduct independent research and complete a doctoral dissertation. Thus the student is expected to demonstrate an in-depth understanding of the basic principles of plant pathology and related areas, to effectively present and defend a dissertation proposal that involves novel and independent research, to respond effectively to in-depth questions about their proposal, plant pathology in general, and other fields of science related to their area of study, to interpret data and to propose logical methods for investigating new research problems.

Students must take the qualifying exam before the beginning of their tenth quarter as a registered student in the Plant Pathology Graduate Program. However, it is often feasible and appropriate for students to take the exam after two years. Ph.D. students should consult with their graduate adviser and major professor concerning the scheduling of their exam. Students who have been admitted into the Plant Pathology Graduate Program for a master's degree and who change their degree goal to a PhD without completing a master's thesis remain subject to the 9-quarter limitation (i.e. you cannot enroll for the 10th quarter without having taken your qualifying exam).
Students who complete a master's degree and continue for a Ph.D. have an additional 9 quarters before they must take the qualifying exam. Students must be registered for the quarter in which they take the exam and have a "B" average in all work undertaken in graduate standing and a grade of B or better in each course of the core course series. The student’s Graduate Adviser must certify that all course requirements have been satisfied before the qualifying exam can be taken.

a) Qualifying Examination

1. General Information
   All students will complete all course requirements before taking their Qualifying Examination. Passing this exam makes the student eligible for advancement to candidacy. The qualifying exam should be taken by the (number) quarter and no later than the end of the (number) quarter after admission to the Ph.D. program.

   The primary purpose of the Qualifying Examination (QE) is to validate that the student is academically qualified to conceptualize a research topic, undertake scholarly research and successfully produce the dissertation required for a doctoral degree. The QE must evaluate the student’s command of the field, ensuring that the student has both breadth and depth of knowledge, and must not focus solely on the proposed dissertation research. In addition, the QE provides an opportunity for the committee to provide important guidance to the student regarding his or her chosen research topic.

2. Written Portion of the Exam – Dissertation Prospectus
   In the qualifying examination, students should expect to defend their thesis research in detail. Students should prepare a concise dissertation proposal to be given to the members of the qualifying examination committee two weeks before the examination date. This document should be 7-10 pages in length, excluding figures and references. Students are encouraged to seek feedback on their proposal from their qualifying exam committee members prior to their examination. Students should consult the chair of the qualifying exam committee concerning the manner in which the research proposal should be presented during the exam. Approximately one hour of the examination will be devoted to the presentation and defense of the proposal. The committee chair will be responsible for ensuring that the time devoted to this portion of the exam is properly balanced with broader coverage of the subject areas being defended.

3. Oral Portion of the Exam
   The oral portion of the qualifying exam will be 2-3 hours in length and is intended to demonstrate the student's critical thinking ability, powers of imagination and synthesis, and broad knowledge of the field of study.

   The committee will evaluate the student's general qualifications for a respected position as an educator or leader as well as the student's preparation in a special area of study based upon relevant portions of the student's previous academic record, performance on specific parts of the examination, and the student's potential for scholarly research as indicated during the examination.

   All students are presumed to possess a strong basic knowledge and understanding of plant pathology. In addition, three specific areas will be defended. These areas (listed below) are usually selected by the student in consultation with the Graduate Adviser and/or Thesis Advisor. Students may propose alternative specialty areas, but these must be approved by the Graduate Affairs Committee.

   1. General Plant Pathology
   2. Bacteriology
   3. Mycology/Plant Pathogenic Fungi
   4. Virology
   5. Nematology
4. **Outcome of the Exam**

The committee will reach a decision on the student’s performance immediately after the oral exam. The committee, having reached a unanimous decision, shall inform the student of its decision to:

- “Pass” (no conditions may be appended to this decision),
- “Not Pass” (the Chair’s report should specify whether the student is required to retake all or part of the examination, list any additional requirements, and state the exact timeline for completion of requirements to achieve a “Pass”), or
- “Fail”.

If a unanimous decision takes the form of “Not Pass” or “Fail”, the Chair of the QE committee must include in its report a specific statement, agreed to by all members of the committee, explaining its decision and must inform the student of its decision. If the committee does not reach a unanimous decision, any dissenting votes will be explained on the report, and the committee will decide if the student must retake the QE. Having received a “Not Pass” the student may attempt the QE one additional time; the QE report must list the specific conditions and timing for the second exam. After a second examination, a vote of “Not Pass” is unacceptable; only “Pass” or “Fail” is recognized. Only one retake of the qualifying examination is allowed. Should the student receive a “Fail” on the first or second attempt at the exam, the student will be recommended for disqualification from the program to the Dean of Graduate Studies.

To address any deficiencies identified during the oral exam, additional work, as determined by the QE committee, may be required of the student to pass the QE.

b) **The Dissertation**

1. **Exit Seminar**

The dissertation follows Plan B with a required exit seminar. Satisfaction of this requirement must be verified by the Dissertation Committee Chair. The Exit Seminar is a formal public presentation of the student’s research before the program faculty and students. It is recommended that this presentation take place during the Spring quarter. The Dissertation Committee will not sign the Dissertation until after the exit seminar has taken place. Adequate scheduling of the exit seminar is the responsibility of the student.

2. **Dissertation: General Requirements**

Filing of a Ph.D. dissertation with the Office of Graduate Studies is normally the last requirement satisfied by the candidate. The deadlines for completing this requirement are listed each quarter in the campus General Catalog (available online at the website of the Office of the Registrar or from the Bookstore). A candidate must be a registered student or in Filing Fee status at the time of filing a dissertation, with the exception of the summer period between the end of the Spring Quarter and the beginning of Fall Quarter. The PhD. Dissertation will be prepared, submitted and filed according to regulations instituted by the Office of Graduate Studies [http://gradstudies.ucdavis.edu/students/filing.html](http://gradstudies.ucdavis.edu/students/filing.html) Satisfaction of this requirement must be verified by the Dissertation Committee Chair.
3. **Dissertation:**

The research conducted by the student must be of such character as to show ability to pursue independent research. The dissertation reports a scholarly piece of work of publishable quality that solves a significant scientific problem in the field and is carried out under the supervision of a member of program while the student is enrolled in the program. The chair of the dissertation committee must be a member of the program and must be immediately involved with the planning and execution of the experimental work done to formulate the dissertation. The major professor’s laboratory is the setting for most of the student’s research activities, unless an alternative site and immediate supervisor are approved in advance by the Executive Committee.

Students should meet regularly with their dissertation committee. The dissertation must be submitted to each member of the dissertation committee at least one month before the student expects to make requested revisions; committee members are expected to respond within 4 weeks, not including summer months for nine month faculty. Informing committee members of progress as writing proceeds helps the members to plan to read the dissertation and provide feedback within this time frame. The dissertation must be approved and signed by the dissertation committee before it is submitted to Graduate Studies for final approval.

9) **Normative Time to Degree**

Students are expected to finish coursework and Advance to Candidacy by the end of their third year (before the 10th quarter). The Normative time in Candidacy is 2-3 years. For those students entering with a Master’s degree in a related field, the normative time to Candidacy is two years.

10) **Typical Time Line and Sequence of Events**

<table>
<thead>
<tr>
<th>Year One</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PLP 120 Intro. to Plant Pathology</td>
<td>PLP 228 Bacteriology</td>
<td>PLP 230 Virology</td>
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<tr>
<td></td>
<td>PLP 290 Seminar</td>
<td>PLP 290 Seminar</td>
<td>PLP 205 Field course</td>
</tr>
<tr>
<td></td>
<td>Course to make up for deficiency</td>
<td>PLP 201A Adv. Plant Pathology</td>
<td>PLP 290 Seminar</td>
</tr>
<tr>
<td>Year Two</td>
<td>Fall</td>
<td>Winter</td>
<td>Spring</td>
</tr>
<tr>
<td>200 level seminar</td>
<td>200 level course</td>
<td>PLP 224</td>
<td></td>
</tr>
<tr>
<td>200 level seminar</td>
<td>200 level course</td>
<td>Course 299</td>
<td></td>
</tr>
<tr>
<td>200 level course</td>
<td>PLP 210 Seminar</td>
<td>NEM 204</td>
<td></td>
</tr>
<tr>
<td>Year Three</td>
<td>Fall</td>
<td>Winter</td>
<td>Spring (advancement to PhD candidacy)</td>
</tr>
<tr>
<td>NEM 205</td>
<td>200 level course</td>
<td>200 level course</td>
<td></td>
</tr>
<tr>
<td>200 level course</td>
<td>299 Units</td>
<td>299 Units</td>
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<tr>
<td>Qualifying Exam Preparation</td>
<td>Qualifying Exam Preparation</td>
<td>Qualifying Exams</td>
<td></td>
</tr>
<tr>
<td>Years Four-Six</td>
<td>Dissertation Research and Completion</td>
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<td></td>
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</tbody>
</table>
11) **Sources of funding.** Students are provided with support through Graduate Student Research positions with their Major Professor, which provides full fee remission and a living stipend. Students may also obtain funding in the form of internal/external fellowships and TAships.

12) **PELP, In Absentia and Filing Fee status.** Information about PELP (Planned Educational Leave), In Absentia (reduced fees when researching out of state), and Filing Fee status can be found in the Graduate Student Guide: [http://gradstudies.ucdavis.edu/students/handbook/GS201_GraduateStudentGuide.pdf](http://gradstudies.ucdavis.edu/students/handbook/GS201_GraduateStudentGuide.pdf).

13) **Leaving the Program Prior to Completion of the PhD Requirements.** Should a student leave the program prior to completing the requirements for the PhD, they may still be eligible to receive the Masters if they have fulfilled all the requirements (see Master’s section). Students can use the Change of Degree Objective form available from the Registrar’s Office: [http://registrar.ucdavis.edu/local_resources/forms/D065-graduate-major-degree-change.pdf](http://registrar.ucdavis.edu/local_resources/forms/D065-graduate-major-degree-change.pdf).