

# Ph.D. in Pharmaceutical Sciences

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## Degree Requirements

The academic regulations for this degree program, as entered in the University of Mississippi Catalog, are in effect for the current or selected academic year and semester. The University of Mississippi reserves the right to 1) change or withdraw courses; 2) change rules for registration, instruction, and graduation; and 3) change other regulations affecting the student body at any time.

## Ph.D. in Pharmaceutical Sciences

| REQUIREMENT              | HOURS | DESCRIPTION  |
|--------------------------|-------|--|
| Select an emphasis       |       | Student must enroll in one of the Ph. D. in Pharmaceutical Sciences emphasis areas: medicinal chemistry, pharmaceuticals, pharmacognosy, environmental toxicology, pharmacy administration or pharmacology/toxicology,   |
| GPA requirements         |       | A cumulative average of not less than 3.0 (B) must be achieved in all graduate work taken.   |
| Pharmacy Dean's approval |       | This Degree Audit program is an advising tool only. The dean's office will make the final certification that the student qualifies for graduation. The dean's office will also determine if other university or school requirements (GPA, etc.) have been met. |

## Emphasis - Medicinal Chemistry

| REQUIREMENT                                     | HOURS | DESCRIPTION  |
|---|-------|--|
| <a href="#">Medc 501</a> - C min                | 3     | Complete <a href="#">Medc 501</a> with a grade of C or better.   |
| <a href="#">Medc 502</a> - C min                | 3     | Complete <a href="#">Medc 502</a> with a grade of C or better.   |
| <a href="#">Medc 541</a> or <a href="#">542</a> | 2     | Complete at least one of the following courses with a grade of C or better: <a href="#">Medc 541</a> or <a href="#">Medc 542</a> .   |
| <a href="#">Medc 797</a>                        | 18    | Student must complete at least 18 hours of dissertation credits ( <a href="#">Medc 797</a> ).  |
| 6 hrs chemistry 500+                            | 6     | Complete at least 6 semester hours of chemistry courses at 500/600 level. Each course must be approved by the student's GPC/Chair and completed with a grade of C or better.   |
| Cumulative exams                                |       | Student must pass five examinations from at least four different department faculty members. He/she is required to pass a minimum of two of the first 12 exams administered.   |
| DAD courses                                     | 12    | Student must complete at four out of seven of the Drug Action and Design (DAD) courses ( <a href="#">Medc 609</a> , <a href="#">611</a> , <a href="#">612</a> , <a href="#">613</a> , <a href="#">614</a> , <a href="#">618</a> , or <a href="#">620</a> ). Each course must be completed with a grade of C or better.   |
| Elective courses                                | 6     | Complete at least 6 hours of graduate-level elective courses. Courses must be approved by the student's GPC/Chair.   |
| Medc Seminar                                    | 2     | Complete at least 2 semester hours of Medc seminar courses ( <a href="#">Medc 543</a> and/or <a href="#">Medc 544</a> ) with a grade of C or better in each.   |
| Oral defense                                    |       | Every candidate for the Ph.D. degree must successfully pass a final oral examination (defense of dissertation) administered by the student's dissertation committee and scheduled by the Graduate School.  |
| Research proposal                               |       | Student must prepare, submit, and successfully (orally) defend an original research proposal (ORP).  |
| Submit Dissertation                             |       | Student must submit a dissertation to his/her GPC/Chair. The dissertation must conform to the regulations governing style set forth in "A Manual of Thesis and Dissertations Preparations", available in the Graduate School Office. Two copies of the dissertation must be presented to the Graduate School after the final examination for the doctorate has been accepted and before the beginning of the regular examination period for the semester in which the candidate plans to graduate. |

## Emphasis - Pharmacy Administration

| REQUIREMENT                      | HOURS | DESCRIPTION   |
|----------------------------------|-------|---|
| <a href="#">Phad 543/544</a>     |       | In addition to the course requirements, student must register for departmental seminar ( <a href="#">Phad 543/544</a> ) each semester (1 credit hour per semester). |
| <a href="#">Phad 579</a> - C min | 3     | Complete <a href="#">Phad 579</a> with a grade of C or better.  |
| <a href="#">Phad 674</a> - C min | 2     | Complete <a href="#">Phad 674</a> with a grade of C or better.  |
| <a href="#">Phad 680</a> - C min | 3     | Complete <a href="#">Phad 680</a> with a grade of C or better.  |
| <a href="#">Phad 681</a> - C min | 3     | Complete <a href="#">Phad 681</a> with a grade of C or better.  |
| <a href="#">Phad 683</a> - C min | 3     | Complete <a href="#">Phad 683</a> with a grade of C or better.  |



| REQUIREMENT                      | HOURS | DESCRIPTION  |
|----------------------------------|-------|--|
| <a href="#">Phad 687</a> - C min | 3     | Complete <a href="#">Phad 687</a> with a grade of C or better.   |
| <a href="#">Phad 688</a> - C min | 3     | Complete <a href="#">Phad 688</a> with a grade of C or better.   |
| <a href="#">Phad 689</a> - C min | 3     | Complete <a href="#">Phad 689</a> with a grade of C or better.   |
| <a href="#">Phad 692</a> - C min | 3     | Complete <a href="#">Phad 692</a> with a grade of C or better.   |
| <a href="#">Phad 693</a> - C min | 3     | Complete <a href="#">Phad 693</a> with a grade of C or better.   |
| <a href="#">Phad 694</a> - C min | 3     | Complete <a href="#">Phad 694</a> with a grade of C or better.   |
| <a href="#">Phad 797</a>         | 18    | Complete at least 18 hours of dissertation credit ( <a href="#">Phad 797</a> ).  |
| Comprehensive exam               |       | Student must pass a comprehensive examination.   |
| Dissertation prospectus          |       | Student must submit and defend a dissertation prospectus.  |
| Oral defense                     |       | Every candidate for the Ph.D. degree must successfully pass a final oral examination (defense of dissertation) administered by the student's dissertation committee and scheduled by the Graduate School.  |
| Submit Dissertation              |       | Student must submit a dissertation to his/her GPC/Chair. The dissertation must conform to the regulations governing style set forth in "A Manual of Thesis and Dissertations Preparations", available in the Graduate School Office. Two copies of the dissertation must be presented to the Graduate School after the final examination for the doctorate has been accepted and before the beginning of the regular examination period for the semester in which the candidate plans to graduate. |
| Specialization                   | 12    | Student must complete at least 12 hours in one of the Pharmacy Administration emphasis areas: Management or Marketing. Courses must be approved by the student's GPC/Chair.  |
| <a href="#">Phad 698</a>         | 6     | Complete at least 6 hours of nonthesis research ( <a href="#">Phad 698</a> ).  |
| Pharmacy admin orientation       |       | In addition to the course requirements, each student must participate and complete an orientation to the discipline of pharmacy administration.  |

### Emphasis - Pharmaceutics

| REQUIREMENT                      | HOURS | DESCRIPTION  |
|----------------------------------|-------|--|
| <a href="#">Phar 535</a> - C min | 3     | Complete <a href="#">Phar 535</a> with a grade of C or better.   |
| <a href="#">Phar 543</a> - C min | 1     | Complete <a href="#">Phar 543</a> with a grade of C or better.   |
| <a href="#">Phar 544</a> - C min | 1     | Complete <a href="#">Phar 544</a> with a grade of C or better.   |
| <a href="#">Phar 641</a> - C min | 4     | Complete <a href="#">Phar 641</a> with a grade of C or better.   |
| <a href="#">Phar 642</a> - C min | 3     | Complete <a href="#">Phar 642</a> with a grade of C or better.   |
| <a href="#">Phar 644</a> - C min | 3     | Complete <a href="#">Phar 644</a> with a grade of C or better.   |
| <a href="#">Phar 649</a> - C min | 3     | Complete <a href="#">Phar 649</a> with a grade of C or better.   |
| <a href="#">Phar 650</a> - C min | 2     | Complete <a href="#">Phar 650</a> with a grade of C or better.   |
| <a href="#">Phar 660</a> - C min | 3     | Complete <a href="#">Phar 660</a> with a grade of C or better.   |
| <a href="#">Phar 797</a>         | 18    | Complete at least 18 hours of dissertation credits ( <a href="#">Phar 797</a> ).   |
| Comprehensive exam               |       | Student must pass a comprehensive examination.   |
| Dissertation prospectus          |       | Student must prepare and orally defend a dissertation prospectus before his/her dissertation committee.  |
| Oral defense                     |       | Every candidate for the Ph.D. degree must successfully pass a final oral examination (defense of dissertation) administered by the student's dissertation committee and scheduled by the Graduate School.  |
| Statistics                       | 4     | Student must complete one of the following statistics and experimental design courses with a grade of C or better: <a href="#">Bisc 504</a> or <a href="#">Math 597</a> .  |
| Submit Dissertation              |       | Student must submit a dissertation to his/her GPC/Chair. The dissertation must conform to the regulations governing style set forth in "A Manual of Thesis and Dissertations Preparations", available in the Graduate School Office. Two copies of the dissertation must be presented to the Graduate School after the final examination for the doctorate has been accepted and before the beginning of the regular examination period for the semester in which the candidate plans to graduate. |
| Surface Phenomena                | 3     | Complete at least one of the following courses with a grade of C or better: <a href="#">Phar 645</a> or <a href="#">Ch E 545</a> .   |



## Emphasis - Pharmacognosy

| REQUIREMENT                      | HOURS | DESCRIPTION  |
|----------------------------------|-------|--|
| <a href="#">Phcg 543</a> - C min | 1     | Complete <a href="#">Phcg 543</a> with a grade of C or better.   |
| <a href="#">Phcg 544</a> - C min | 1     | Complete <a href="#">Phcg 544</a> with a grade of C or better.   |
| <a href="#">Phcg 620</a> - C min | 3     | Complete <a href="#">Phcg 620</a> with a grade of C or better.   |
| <a href="#">Phcg 627</a> - C min | 3     | Complete <a href="#">Phcg 627</a> with a grade of C or better.   |
| <a href="#">Phcg 628</a> - C min | 3     | Complete <a href="#">Phcg 628</a> with a grade of C or better.   |
| <a href="#">Phcg 643</a>         | 1     | Complete <a href="#">Phcg 643</a> .  |
| <a href="#">Phcg 644</a>         | 1     | Complete <a href="#">Phcg 644</a> .  |
| <a href="#">Phcg 797</a>         | 18    | Complete at least 18 hours of dissertation credits ( <a href="#">Phcg 797</a> ).   |
| Comprehensive exam               |       | Student must pass a comprehensive examination.   |
| Elective courses                 | 4     | Student must take at least four additional 500/600 level courses, at least three of which are from outside the department from the fields of pharmacology, biochemistry, medicinal chemistry, organic chemistry, botany, microbiology, marine biology, or other approved electives.  |
| Oral defense                     |       | Every candidate for the Ph.D. degree must successfully pass a final oral examination (defense of dissertation) administered by the student's dissertation committee and scheduled by the Graduate School.  |
| Research proposal                |       | Student must submit and orally defend an original research proposal.   |
| Submit Dissertation              |       | Student must submit a dissertation to his/her GPC/Chair. The dissertation must conform to the regulations governing style set forth in "A Manual of Thesis and Dissertations Preparations", available in the Graduate School Office. Two copies of the dissertation must be presented to the Graduate School after the final examination for the doctorate has been accepted and before the beginning of the regular examination period for the semester in which the candidate plans to graduate. |

## Emphasis - Pharmacology

| REQUIREMENT                      | HOURS | DESCRIPTION   |
|----------------------------------|-------|---|
| <a href="#">Phcl 501</a> - C min | 1     | Complete <a href="#">Phcl 501</a> with a grade of C or better.  |
| <a href="#">Phcl 563</a> - C min | 4     | Complete <a href="#">Phcl 563</a> with a grade of C or better.  |
| <a href="#">Phcl 564</a> - C min | 4     | Complete <a href="#">Phcl 564</a> with a grade of C or better.  |
| <a href="#">Phcl 611</a>         | 1     | Complete <a href="#">Phcl 611</a> .   |
| <a href="#">Phcl 612</a>         | 1     | Complete <a href="#">Phcl 612</a> .   |
| <a href="#">Phcl 643</a>         | 1     | Complete <a href="#">Phcl 643</a> .   |
| <a href="#">Phcl 651</a> - C min | 1     | Complete <a href="#">Phcl 651</a> with a grade of C or better.  |
| <a href="#">Phcl 661</a> - C min | 4     | Complete <a href="#">Phcl 661</a> with a grade of C or better.  |
| <a href="#">Phcl 669</a> - C min | 4     | Complete <a href="#">Phcl 669</a> with a grade of C or better.  |
| <a href="#">Phcl 675</a> - C min | 4     | Complete <a href="#">Phcl 675</a> with a grade of C or better.  |
| <a href="#">Phcl 676</a> - C min | 4     | Complete <a href="#">Phcl 676</a> with a grade of C or better.  |
| <a href="#">Phcl 797</a>         | 18    | Complete at least 18 hours of dissertation ( <a href="#">Phcl 797</a> ).  |
| <a href="#">Psy 603</a> - C min  | 3     | Complete <a href="#">Psy 603</a> with a grade of C or better.   |
| Comprehensive exam               |       | Student must pass both an written and oral comprehensive examination.   |
| Manuscript                       |       | Student must submit a manuscript that describes the dissertation research and is suitable for publication in a refereed journal.  |
| Oral defense                     |       | Every candidate for the Ph.D. degree must successfully pass a final oral examination (defense of dissertation) administered by the student's dissertation committee and scheduled by the Graduate School. |



| REQUIREMENT         | HOURS | DESCRIPTION  |
|---------------------|-------|--|
| Submit Dissertation |       | Student must submit a dissertation to his/her GPC/Chair. The dissertation must conform to the regulations governing style set forth in "A Manual of Thesis and Dissertations Preparations", available in the Graduate School Office. Two copies of the dissertation must be presented to the Graduate School after the final examination for the doctorate has been accepted and before the beginning of the regular examination period for the semester in which the candidate plans to graduate. |

### Emphasis - Environmental Toxicology

| REQUIREMENT                      | HOURS | DESCRIPTION  |
|----------------------------------|-------|--|
| <a href="#">Bisc 504</a> - C min | 4     | Complete <a href="#">Bisc 504</a> with a grade of C or better.   |
| <a href="#">Phcl 547</a> - C min | 2     | Complete <a href="#">Phcl 547</a> with a grade of C or better.   |
| <a href="#">Phcl 643</a> - C min | 4     | Student must present a minimum of four seminars ( <a href="#">Phcl 643</a> ); one of these presentations can be the student's dissertation research.   |
| <a href="#">Phcl 675</a> - C min | 4     | Complete <a href="#">Phcl 675</a> with a grade of C or better.   |
| <a href="#">Phcl 676</a> - C min | 4     | Complete <a href="#">Phcl 676</a> with a grade of C or better.   |
| <a href="#">Phcl 797</a>         | 18    | Complete at least 18 hours of dissertation credits.  |
| Comprehensive exam               |       | Student must pass a comprehensive examination.   |
| Dissertation prospectus          |       | Student must submit and defend a dissertation prospectus.  |
| Oral defense                     |       | Every candidate for the Ph.D. degree must successfully pass a final oral examination (defense of dissertation) administered by the student's dissertation committee and scheduled by the Graduate School.  |
| Submit Dissertation              |       | Student must submit a dissertation to his/her GPC/Chair. The dissertation must conform to the regulations governing style set forth in "A Manual of Thesis and Dissertations Preparations", available in the Graduate School Office. Two copies of the dissertation must be presented to the Graduate School after the final examination for the doctorate has been accepted and before the beginning of the regular examination period for the semester in which the candidate plans to graduate. |

