



## **Dual Degree Student Handbook 2021-2022**

**Regardless of the discipline, each GSBS student (MS or PhD) will receive the degree of Biomedical Sciences. The discipline is listed on the transcript as the Major.**

**The information provided in this document serves to supplement the requirements of the Graduate School of Biomedical Sciences and the Dual Degree Programs detailed in the UNTHSC Catalog with requirements and information specific to Dual Degrees.**

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## Description of the Dual Degree Programs

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The Graduate School of Biomedical Sciences at UNTHSC offers PharmD/MS and PharmD/PhD degrees in collaboration with the UNT System College of Pharmacy, and DO/MS and DO/PhD degrees in collaboration with the Texas College of Osteopathic Medicine. All dual degree students will matriculate into one of eight traditional disciplines upon completion of the appropriate coursework and milestones. Once these students have matriculated into a discipline, they will be advised by the graduate advisor of the discipline and will complete additional requirements of the specific discipline. The traditional disciplines are: Biochemistry & Cancer Biology; Cell Biology, Immunology & Microbiology; Genetics; Integrative Physiology; Pharmaceutical Sciences and Pharmacotherapy; Pharmacology & Neuroscience; Structural Anatomy & Rehabilitation Sciences; and Visual Sciences. Students receive a competency based, individualized training through original research, formal classroom education, problem-based learning, seminars, and journal clubs.

Faculty members in the Graduate School of Biomedical Sciences are engaged in various aspects of Biomedical research related to the traditional disciplines. A dual degree student can pursue research in any of the faculty labs that are accepting new students at the time the dual degree student matriculates into the Graduate School of Biomedical Research. Specific research interests of faculty can be found at the [UNTHSC Experts Website](#).

## Application and Acceptance Timeline for DO/PhD and DO/MS Dual Degrees

Current DO students would apply for the GSBS PhD or MS degree in biomedical sciences in Year 2 of the TCOM DO program. The applicants that are accepted would begin the Year 1 PhD or MS courses in the following Fall.

### Application Requirements:

To be considered for admission, the applicant must complete the online application process by the published deadline (but preferably by January 1) by submitting the following:

- Online PhD or MS application (linked on Admissions websites)
- \$50 application fee (waived for McNair scholars with documentation of participation). The online application service charges additional fees.
- Official transcripts from each and every college/University attended. A Bachelor's degree from an accredited institution is required.
  - A course-by-course evaluation from IACE, WES or ECE is also required for transcripts from institutions outside the U.S.
- Two letters of recommendation
- Resume/CV
- A TOEFL or IELTS score is also required for international applicants
  - The reporting code for the TOEFL is 6909
- Supplemental materials may be submitted (i.e., personal statement, certificates, etc.) but are not required unless designated by application requirements per program

## **Course Credit from DO program to MS or PhD program in GSBS**

Two independent laboratory rotations (i.e., BMSC 5150 - 2 SCH) are required for all traditional GSBS graduate students. TCOM DO students should attempt to perform research in the laboratory of a GSBS graduate faculty member during PY1 and PY2. Documentation of two rotations in two independent labs, each lasting 6-8 weeks, may be provided to waive the BMSC 5150 requirement. Depending upon how many research rotations were completed, incoming DO/PhD and DO/MS students should register for the appropriate number of SCH of BMSC 5150 in the Fall to satisfy this requirement. Waiver request for the laboratory rotations may be submitted to the Dean.

DO/PhD students receive 30 SCH of advanced standing for the basic science didactic coursework in the DO curriculum; DO/MS students receive 12 SCH of advanced standing. Because the basic science DO courses in the TCOM curriculum have been determined to include content equivalent to BMSC 6201, 6202, 6203, and 6204 in the GSBS curriculum, these courses will be waived for DO/PhD and DO/MS students. The DO student may receive waivers for advanced course credit with the recommendation of the advisory committee through submission of the degree plan. The graduate Dean or designee has the final approval on advanced standing credit and requirement waivers.

For additional information regarding Academic Procedures, please refer to the Graduate School of Biomedical Sciences Catalog at [Academic Procedures \(GSBS\)](#).

For additional information regarding DO/MS and DO/PhD dual degree programs, please refer to the Texas College of Osteopathic Medicine Catalog at [Dual Degree Programs](#).

## DO/MS Sample Degree Plan

<i>Dept</i>	<i>Course Number</i>	<i>Course Title</i>	<i>SCH</i>	<i>Semester to be Completed</i>
BMSC	5150	Lab Rotations	2	Fall year 1
BMSC	6200	Intro to Experimental Design & Biostatistical Methods	2	Fall year 1
BMSC	5998	Individual Research for MS students	0-4	Fall year 1
		Elective courses	4-8	Fall year 1
		<b>Subtotal</b>	<b>12</b>	
<u><i>Milestones to be completed by the end of fall semester, year 1: Selection of Major Professor, Change of Discipline.</i></u>				
BMSC	5160	Biomedical Ethics	1	Spring year 1
BMSC	5315	Principles of Scientific Communication	2	Spring year 1
BMSC	5109	Diversity, Equity and Inclusion in Biomedical Sciences: Fundamental Concepts	1	Spring year 1
BMSC	5998	Individual Research for MS students	0-4	Spring year 1
		Discipline-specific required courses	4-8	Spring year 1
		<b>Subtotal</b>	<b>12</b>	
<u><i>Milestones to be completed by the end of spring semester, year 1: Designation of Advisory Committee, Degree Plan.</i></u>				
BMSC	5998	Individual Research for MS students	1-5	Summer year 1
BMSC	5108	Transferable Skills	1	Summer year 1
		Elective Courses	0-4	Summer year 1
		<b>Subtotal</b>	<b>6</b>	
BMSC	5998	Individual Research for MS students	6-10	Fall year 2
		Elective Courses	2-6	Fall year 2
		<b>Subtotal</b>	<b>12</b>	
<u><i>Milestone to be completed by the end of fall semester, year 2: Research Proposal; documentation of the completed proposal must be on file prior to enrollment in Thesis (BMSC 5395).</i></u>				
BMSC	5395	Thesis	9	Spring year 2
		<b>Subtotal</b>	<b>9</b>	
		<b>Total for Degree</b>	<b>63 (including 12 SCH of advanced standing)</b>	

## DO/PhD Sample Degree Plan

<i>Dept</i>	<i>Course Number</i>	<i>Course Title</i>	<i>SCH</i>	<i>Semester to be Completed</i>
BMSC	5150	Lab Rotations	2	Fall year 1
BMSC	6200	Intro to Experimental Design & Biostatistical Methods	2	Fall year 1
BMSC	6998	Individual Research for PhD students	0-4	Fall year 1
		Elective courses	4-8	Fall year 1
		<b>Subtotal</b>	<b>12</b>	
<u><i>Milestones to be completed by the end of fall semester, year 1: Selection of Major Professor, Change of Discipline.</i></u>				
BMSC	5160	Biomedical Ethics	1	Spring year 1
BMSC	5315	Principles of Scientific Communication	2	Spring year 1
BMSC	5109	Diversity, Equity and Inclusion in Biomedical Sciences: Fundamental Concepts	1	Spring year 1
BMSC	6998	Individual Research for PhD students	0-4	Spring year 1
		Discipline-specific required courses	4-8	Spring year 1
		<b>Subtotal</b>	<b>12</b>	
<u><i>Milestones to be completed by the end of spring semester, year 1: Designation of Advisory Committee, Degree Plan.</i></u>				
BMSC	6998	Individual Research for PhD students	1-5	Summer year 1
BMSC	5108	Transferable Skills	1	Summer year 1
		Elective Courses	0-4	Summer year 1
		<b>Subtotal</b>	<b>6</b>	
<u><i>Milestone to be completed by the end of summer semester, year 1: Oral Qualifying Examination.</i></u>				
BMSC	6998	Individual Research for PhD students	6-10	Fall year 2
		Elective Courses	2-6	Fall year 2
		<b>Subtotal</b>	<b>12</b>	
BMSC	6998	Individual Research for PhD students	6-10	Spring year 2
		Elective Courses	2-6	Spring year 2
		<b>Subtotal</b>	<b>12</b>	
BMSC	6101	Responsible Conduct of Research	1	Summer year 2
BMSC	6998	Individual Research for PhD students	1-5	Summer year 2
		Elective Courses	0-4	Summer year 2
		<b>Subtotal</b>	<b>6</b>	
<u><i>Milestone to be completed by the end of summer semester, year 2: Research Proposal; documentation of the completed proposal must be on file prior to enrollment in Doctoral Dissertation (BMSC 6395).</i></u>				

BMSC	6998	Individual Research for PhD students	5-9	Fall year 3
		Elective Courses	0-4	Fall year 3
		<b><i>Subtotal</i></b>	<b>9</b>	
BMSC	6998	Individual Research for PhD students	5-9	Spring year 3
		Elective Courses	0-4	Spring year 3
		<b><i>Subtotal</i></b>	<b>9</b>	
BMSC	6395	Doctoral Dissertation	6	Summer year 3
		<b><i>Subtotal</i></b>	<b>6</b>	
		<b><i>Total for Degree</i></b>	<b><i>114 (including 30 SCH of advanced standing)</i></b>	



## **Application and Acceptance Timeline for PharmD/PhD and PharmD/MS Dual Degree**

Current PharmD students would apply for the GSBS PhD or MS degree in biomedical sciences in PY3 of pharmacy PharmD program in late fall with decision by January 31 and begin PhD or MS Year 1 courses in following Fall.

### **Application Requirements:**

To be considered for admission, the applicant must submit the following official credentials to the UNTHSC Office of Admissions and Recruitment by the published deadline:

- Online PhD or MS application (linked on Admissions websites)
- \$50 application fee (waived for McNair scholars with documentation of participation)
- Official transcripts from each and every college/University attended
  - A course-by-course evaluation from IACE, WES or ECE is also required for transcripts from institutions outside the U.S.
- Two letters of recommendation
- Resume/CV
- A TOEFL or IELTS score is also required for international applicants
  - The reporting code for the TOEFL is 6909
- Supplemental materials may be submitted (i.e., personal statement, certificates, etc.) but are not required unless designated by application requirements per program

## Course Credit from PharmD program to MS or PhD program in GSBS

Two independent laboratory rotations (i.e., BMSC 5150 - 2 SCH) are required for all traditional GSBS graduate students. Pharmacy PharmD student should attempt to perform research in the laboratory of a GSBS graduate faculty member during PY1 and PY2. Documentation of two rotations in two independent labs, each lasting 6-8 weeks, may be provided to waive the BMSC 5150 requirement. Depending upon how many research rotations were completed, incoming PharmD/PhD and PharmD/MS students should register for the appropriate number of SCH of BMSC 5150 in the Fall to satisfy this requirement. Waiver request for the laboratory rotations may be submitted to the Dean.

PharmD/PhD students receive 20 SCH of advanced standing for the basic science didactic coursework in the PharmD curriculum; PharmD/MS students receive 12 SCH of advanced standing. PharmD/PhD or PharmD/MS students will receive advanced standing/credit for BMSC 6201 (2 SCH) through PHAR 7412 Metabolic Basis of Pharmacotherapy (Biochemistry), BMSC 6204 (2 SCH) through PHAR 7411 Physiologic Basis for Pharmacotherapy and PHAR 7331 Immune Based Diseases and Immunology. The PharmD student may receive waivers for advanced course credit with the recommendation of the advisory committee through submission of the degree plan. The graduate dean or designee has the final approval on advanced standing credit and requirement waivers.

For additional information regarding Academic Procedures, please refer to the Graduate School of Biomedical Sciences Catalog at [Academic Procedures \(GSBS\)](#).

For additional information regarding PharmD/MS and PharmD/PhD dual degree programs, please refer to the UNT System College of Pharmacy Catalog at [Dual Degree Programs](#).

## PharmD/MS Sample Degree Plan

<i>Dept</i>	<i>Course Number</i>	<i>Course Title</i>	<i>SCH</i>	<i>Semester to be Completed</i>
BMSC	5150	Lab Rotations	2	Fall year 1
BMSC	6200	Intro to Experimental Design & Biostatistical Methods	2	Fall year 1
BMSC	6202	Fundamentals of Biomedical Sciences II	2	Fall year 1
BMSC	6203	Fundamentals of Biomedical Sciences III	2	Fall year 1
BMSC	5998	Individual Research for MS students	0-2	Fall year 1
		Elective courses	2-4	Fall year 1
		<b>Subtotal</b>	<b>12</b>	
<u>Milestones to be completed by the end of fall semester, year 1: Selection of Major Professor, Change of Discipline.</u>				
BMSC	5160	Biomedical Ethics	1	Spring year 1
BMSC	5315	Principles of Scientific Communication	2	Spring year 1
BMSC	5109	Diversity, Equity and Inclusion in Biomedical Sciences: Fundamental Concepts	1	Spring year 1
BMSC	5998	Individual Research for MS students	0-4	Spring year 1
		Discipline-specific required courses	4-8	Spring year 1
		<b>Subtotal</b>	<b>12</b>	
<u>Milestones to be completed by the end of spring semester, year 1: Designation of Advisory Committee, Degree Plan.</u>				
BMSC	5998	Individual Research for MS students	1-5	Summer year 1
BMSC	5108	Transferable Skills	1	Summer year 1
		Elective Courses	0-4	Summer year 1
		<b>Subtotal</b>	<b>6</b>	
BMSC	5998	Individual Research for MS students	6-10	Fall year 2
		Elective Courses	2-6	Fall year 2
		<b>Subtotal</b>	<b>12</b>	
<u>Milestone to be completed by the end of fall semester, year 2: Research Proposal; documentation of the completed proposal must be on file prior to enrollment in Thesis (BMSC 5395).</u>				
BMSC	5395	Thesis	9	Spring year 2
		<b>Subtotal</b>	<b>9</b>	
		<b>Total for Degree</b>	<b>63 (including 12 SCH of advanced standing)</b>	

## PharmD/PhD Sample Degree Plan

<i>Dept</i>	<i>Course Number</i>	<i>Course Title</i>	<i>SCH</i>	<i>Semester to be Completed</i>
BMSC	5150	Lab Rotations	2	Fall year 1
BMSC	6200	Intro to Experimental Design & Biostatistical Methods	2	Fall year 1
BMSC	6202	Fundamentals of Biomedical Sciences II	2	Fall year 1
BMSC	6203	Fundamentals of Biomedical Sciences III	2	Fall year 1
BMSC	6998	Individual Research for PhD students	0-2	Fall year 1
		Elective courses	2-4	Fall year 1
		<b>Subtotal</b>	<b>12</b>	
<i>Milestones to be completed by the end of fall semester, year 1: Selection of Major Professor, Change of Discipline.</i>				
BMSC	5160	Biomedical Ethics	1	Spring year 1
BMSC	5315	Principles of Scientific Communication	2	Spring year 1
BMSC	5109	Diversity, Equity and Inclusion in Biomedical Sciences: Fundamental Concepts	1	Spring year 1
BMSC	6998	Individual Research for PhD students	0-4	Spring year 1
		Discipline-specific required courses	4-8	Spring year 1
		<b>Subtotal</b>	<b>12</b>	
<i>Milestones to be completed by the end of spring semester, year 1: Designation of Advisory Committee, Degree Plan.</i>				
BMSC	6998	Individual Research for PhD students	1-5	Summer year 1
BMSC	5108	Transferable Skills	1	Summer year 1
		Elective Courses	0-4	Summer year 1
		<b>Subtotal</b>	<b>6</b>	
<i>Milestone to be completed by the end of summer semester, year 1: Oral Qualifying Examination.</i>				
BMSC	6998	Individual Research for PhD students	6-10	Fall year 2
		Elective Courses	2-6	Fall year 2
		<b>Subtotal</b>	<b>12</b>	
BMSC	6998	Individual Research for PhD students	6-10	Spring year 2
		Elective Courses	2-6	Spring year 2
		<b>Subtotal</b>	<b>12</b>	
BMSC	6101	Responsible Conduct of Research	1	Summer year 2
BMSC	6998	Individual Research for PhD students	1-5	Summer year 2
		Elective Courses	0-4	Summer year 2
		<b>Subtotal</b>	<b>6</b>	

Milestone to be completed by the end of *summer semester, year 2*: Research Proposal; documentation of the completed proposal must be on file prior to enrollment in Doctoral Dissertation (BMSC 6395).

BMSC	6998	Individual Research for PhD students	5-9	Fall year 3
		Elective Courses	0-4	Fall year 3
		<b>Subtotal</b>	<b>9</b>	
BMSC	6998	Individual Research for PhD students	5-9	Spring year 3
		Elective Courses	0-4	Spring year 3
		<b>Subtotal</b>	<b>9</b>	
BMSC	6395	Doctoral Dissertation	6	Summer year 3
		<b>Subtotal</b>	<b>6</b>	
		<b>Total for Degree</b>	<b>104 (including 20 SCH of advanced standing)</b>	

## **Additional Information**

### **New Student Orientation**

Dual degree students are required to participate in the GSBS orientation the semester their graduate study begins.

### **Registration**

Incoming dual degree students should consult the Director of Traditional MS/PhD Programs regarding which courses to enroll in. After matriculation into a discipline and choosing a major professor, dual degree students should consult their major professors, graduate advisors and degree plans to determine which courses are needed. A list of courses, including course title, number, section number, and number of credits should be e-mailed to [Carla.Lee.Johnson@unthsc.edu](mailto:Carla.Lee.Johnson@unthsc.edu) during the registration period for the semester.

### **Payment of Tuition and Fees**

GSBS Student and Academic Services will coordinate bill payment for dual degree students. From the first semester DO/PhD students are enrolled in GSBS, tuition and fees are paid for both TCOM and GSBS enrollment through graduation. Only GSBS tuition and fees are paid for students pursuing the PhD with a clinical program other than TCOM.

### **Payroll**

GSBS will manage payroll documentation for dual degree students. During the period of enrollment in GSBS, dual degree students pursuing the PhD will be paid as graduate teaching assistants and are required to fulfill a minimum of one teaching assistant assignment per year. The current level of funding is \$28,185/year. During the clinical rotation block of the DO/PhD program, the level of funding is reduced to \$10,800/year.

### **Graduation**

Dual degree students should submit an Intent to Graduate form in the Graduate School of Biomedical Sciences the semester they will complete requirements for the clinical degree. These forms are due during the GSBS registration period for the semester of graduation. It is not uncommon for dual degree students to complete their research, write and defend their thesis/dissertation prior to re-entering their clinical curriculum. They may also elect to complete the research before returning to the clinical program and focus on writing the thesis/dissertation while completing their clinical program requirements. However, it is important to consult GSBS Student and Academic Services when planning the timing of graduation to ensure that all GSBS requirements are not completed before clinical program requirements. When GSBS requirements are completed, the graduate degree is conferred which makes the student ineligible to participate in commencement exercises as a dual degree candidate. Graduates will receive a separate diploma for each degree earned.

### **Regalia**

In academic tradition, one wears the regalia of the highest degree earned. According to the United States Department of Education, the Doctor of Philosophy is the highest degree earned for a few reasons: 1) an undergraduate degree is prerequisite; 2) there is a research component culminating in a dissertation; and 3) it is considered a terminal degree, meaning that no further courses of study are available in the field after the completion of the degree. Therefore, dual degree students completing

PhD requirements typically choose to order the PhD regalia for commencement exercises. Regalia for one degree should not be combined with that of another; however, it is acceptable to carry the hood of the regalia for the second degree folded over your arm for commencement exercises.

HSC hosts commencement exercises once a year at the end of the spring semester. Dual degree candidates march at the end of the student processional and their degrees are conferred last, with appropriate recognition for both degrees earned. Degree candidates will recite the appropriate professional oath with their clinical classmates.