

# BIOMEDICAL SCIENCES, M.S.

## Degree Requirements (32 Hours)

### Thesis Based MS Option

The MS degree in Biomedical Sciences requires the completion of a series of core courses in basicbiomedical topics as well as elective courses in focused areas. The MS degree in Biomedical Science requires at least 32 graduate credit hours, not more than 6 of which may be taken in thesis or dissertation research. Of the 32 credit hours, at least 50 percent must be in courses numbered 700 or above, exclusive of dissertation credit. Not more than 6 hours of independent study, special topics, or directed research other than dissertation research are permitted, unless justified by the program of study and approved by the Dean of Graduate Studies. The remainder of the requirements may include courses numbered from 500 to 699 taken for graduate credit. As many as 12 hours of study may be taken in USC schools and colleges other than the School of Medicine; this option provides great flexibility to individually tailor programs and draw on the wider resources of a comprehensive university. At least 10 credit hours of graduate study must be taken from basic medical science graduate courses.

The curriculum consists of required core courses in the basic medical sciences and additional elective courses that depend upon the interest and career goals of the student.

### Core Courses

Include the following:

Course	Title	Credits
Select one of the following:		3-4
BMSC 707	Biochemistry for the Biomedical Sciences	
BMSC 754	Biomedical Biochemistry I	
BIOL 717	Biological Chemistry	
BMSC 700	Biomedical Science Interdisciplinary Laboratory I	1
BMSC 706	Ethics in Biomedical Research	2
BMSC 801	Seminar in Biomedical Science	2
Select one of the following:		3-4
BMSC 702	Medical Cell Biology I	
BMSC 708	Human Cell and Molecular Biology for Biomedical Sciences	
BIOL 714	Advanced Cell Biology	
<b>Total Credit Hours</b>		<b>11-13</b>

*Comprehensive Assessment #* Students will demonstrate their ability to synthesize and integrate knowledge across the biomedical discipline via writing and oral defense of the thesis. While focused on a specific biomedical research topic, the thesis will incorporate ideas that span the biomedical field. Likewise, the thesis defense will address topics and issues that span the biomedical sciences including ethical issues in biomedical research. The thesis and defense thereof will be evaluated by the student's MS Advisory Committee.

### Non-Thesis Option

Students who elect to pursue the Biomedical Sciences MS degree, non-thesis option, are required to complete the core course work outlined for the thesis option but in lieu of 6 hours of research credit can take an additional 6 hours of course work to better prepare them for their ultimate career goals. This track requires at least 32 graduate credit hours. Of

the 32 credit hours, at least 50 percent must be in courses numbered 700 or above, exclusive of dissertation credit. Not more than 6 hours of independent study or special topics are permitted, unless justified by the program of study and approved by the Dean of Graduate Studies. The remainder of the requirements may include courses numbered from 500 to 699 taken for graduate credit. As many as 12 hours of study may be taken in USC schools and colleges other than the School of Medicine; this option provides great flexibility to individually tailor programs and draw on the wider resources of a comprehensive university. At least 10 credit hours of graduate study must be taken from basic medical science graduate courses.

*Comprehensive Assessment #* Students will demonstrate their mastery of basic science concepts through the completion of a comprehensive exam given at the end of their course work. This exam will be assembled and evaluated by the student's MS Advisory Committee and should reflect the course work completed during the student's program of study.