

MSBS IN CANCER BIOLOGY

The MSBS Qualifying Exam is taken in the summer term of the first year. Prior to completing the exam, students should carry out their thesis research under the course Research in CABP 6730. After passing the Qualifying Exam, students conduct their research under the course Thesis Research (CABP 6990). The minimum number of credits required for MSBS is 40, with a minimum of 25 credits of didactic coursework (letter grade), and a minimum of 10 credits of thesis research. The rest of the credits are approved electives and research in the Cancer Biology track.

All Masters students are also required to present posters in the annual UTHSC Graduate Student Research Forum and oral presentations in the annual Larry Gentry Research Symposia beginning in their second year.

Advanced Courses in the Cancer Biology Track

Advanced Cancer Biology

A comprehensive examination of the cellular and molecular foundation of cancer. Topics to be covered include: neoplasia; epidemiology and etiology; the role of causative agents such as chemicals, radiation, and viruses; cell proliferation, injury, and death; oncogenes; tumor suppressor genes; cancer therapies, and overviews of several major types of cancer.

Readings in Cancer Biology

A readings and discussion course that will examine classic and current research publications from within the broad realm of cancer biology.

Independent Study in Cancer Biology

In-depth study of research areas chosen by individual faculty. Examples of such topics may be: drug therapy and resistance, hormonal carcinogenesis, and epigenetic mechanisms of oncogenesis

Code	Title	Hours
BMSP 6330	Current Problems and Research Approaches in Proteins	2
BMSP 6340	Curr Prob Res App Genes/Genom	2
BMSP 6360	Current Problems and Research Approaches in Cell Membranes	2
BMSP 6380	Methods in Biomedical Sciences	2
BMSP 6390	Mentored Research	1
BMSP 6470	System Pathophysiology	4
BMSP 6350	Cell Biology & Signaling	3
CABP 6560	Readings in Cancer Biology	1
CABP 6730	Research in Cancer Biology	1-9
BMSP 5320	Statistical Methods I	3
INDI 6020	On Being a Scientist	1
CABP 6270	Advanced Cancer Biology	3
CABP 6890	Ind Study in Cancer Biology	1-9
CABP 6990	Thesis Research in Cancer Biol	1-9

First Term

	Hours
Introduction to Biomedical Research	0
BMSP 6330 Current Problems and Research Approaches in Proteins	2
BMSP 6340 Curr Prob Res App Genes/Genom	2
BMSP 6380 Methods in Biomedical Sciences	2

BMSP 6360	Current Problems and Research Approaches in Cell Membranes	2
BMSP 6390	Mentored Research	1
	Hours	9

Second Term

BMSP 6470	System Pathophysiology	4
BMSP 6350	Cell Biology & Signaling	3
CABP 6560	Readings in Cancer Biology	1
BMSP 6390	Mentored Research	1
	Hours	9

Third Term

BMSP 5320	Statistical Methods I	3
INDI 6020	On Being a Scientist	1
CABP 6730	Research in Cancer Biology	2

Qualifying Examination must be completed by end of summer semester, which consists of 20 questions taken from a '100 question cancer biology bank' that was given to you at the start of your first semester.

	Hours	6
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Fourth Term

CABP 6270	Advanced Cancer Biology	3
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(elective, can also take this course in third year)

CABP 6990	Thesis Research in Cancer Biol	6-9
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or

Electives	Hours	9-12
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Fifth Term

CABP 6560	Readings in Cancer Biology	1
CABP 6990	Thesis Research in Cancer Biol	1-8

Electives

	Hours	2-9
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Sixth Term

CABP 6990	Thesis Research in Cancer Biol	6
	Hours	6

Seventh Term

CABP 6270	Advanced Cancer Biology	3
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(elective, if not taken in 2nd year)

CABP 6990	Thesis Research in Cancer Biol	6-9
	Hours	9-12

Eighth Term

CABP 6990	Thesis Research in Cancer Biol	9
	Hours	9

Ninth Term

CABP 6990	Thesis Research in Cancer Biol	6
	Hours	6

	Total Hours	65-78
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Prior to successfully completing the Qualifying Exam by end of 1st summer, students should conduct their thesis research under the course

Research in CABP 6730. After passing the Qualifying Exam, students should conduct their research under the course Research in CABP 6990.

The minimum number of credits required for MSBS is 40 total, with a minimum of 20 didactic coursework (letter grade) and a minimum of 10 credits of thesis research. The rest of the credits are approved electives and research in the Cancer Biology track.

Masters' students are also required to present posters or oral presentations in the annual HSC Graduate Research Forum and oral presentations in the annual Larry Gentry Research Symposia beginning in their second year.