NEUROSCIENCE, **SYSTEMS BIOLOGY AND BIOENGINEERING - M.S.,** PH.D. COMPARISON

	Course Title	MS	PhD
Basic science		IVIS	FIID
IBGS 501	Biomedical Communication and	2.0	2.0
1663 301	Integrity	2.0	2.0
IBGS 502	Biomedical Information and Statistics	2.0	2.0
IBGS 511	Cellular Mechanisms and Integrated Systems I	6.0	6.0
IBGS 512	Cellular Mechanisms and Integrated Systems II	6.0	6.0
IBGS 503	Biomedical Grant Writing		2.0
IBGS 522	Cellular Mechanisms and Integrated Systems II Journal Club		2.0
IBGS 523	Cellular Mechanisms and Integrated Systems III Journal Club		2.0
Totals		16.0	22.0
	Course Title	MS	PhD
Seminars			
IBGS 604	Introduction to Integrative Biology Presentation Seminar	1.0	1.0
IBGS 605	Integrative Biology Presentation Seminar (1) ²	1.0	2.0
IBGS 607	Integrated Biomedical Graduate Studies Seminar (1) ¹	1.0	1.0
Totals		2.0	3.0
	Course Title	MS	PhD
Religion			
RELE 5 Mus	st be numbered 500 or above		3.0
RELR 5_ Must be numbered 500 or above			3.0
RELT 5_ Mus	st be numbered 500 or above		3.0
	ıst be numbered 500 or above with an or RELT prefix	3.0	
Totals		3.0	9.0
	Course Title	MS	PhD
Program spec	cific courses		
See Ph.D. degree program for choice of courses			23.0
See M.S. degree program for choice of courses		16.0	
Totals		16.0	23.0
	Course Title	MS	PhD
MS degree co	ompletion options		
Required:		11.0	

Coursework track:

Electives (11 units)

Research/Thesis track

Electives (0-2 units)

IBGS 698 Thesis

NSBB 697 Research

PhD research/dissertation NSBB 697 Research (1-8) 12 IBGS 696 Research Rotations (1) 2 IBGS 699 Dissertation (1-5) 2 Totals 16				
PhD research/dissertation 12. NSBB 697 Research (1-8) 12. IBGS 696 Research Rotations (1) 2. IBGS 699 Dissertation (1-5) 2. Totals 16.	Totals		11.0	
NSBB 697 Research (1-8) 12 IBGS 696 Research Rotations (1) 2 IBGS 699 Dissertation (1-5) 2 Totals 16		Course Title	MS	PhD
IBGS 696 Research Rotations (1) 2 IBGS 699 Dissertation (1-5) 2 Totals 16	PhD researc	h/dissertation		
IBGS 699 Dissertation (1-5) 2. Totals 16.	NSBB 697	Research (1-8)		12.0
Totals 16.	IBGS 696	Research Rotations (1)		2.0
	IBGS 699	Dissertation (1-5)		2.0
Overall Totals 48.0 73.	Totals			16.0
	Overall Tota	ls	48.0	73.0

¹ Registration and attendance required every quarter in residence, but units do not count toward total required for graduation.

At least 2 units must be in a techniques course and 2 units in a didactic

literature-based course.