MASTER OF SCIENCE IN BIOLOGICAL ENGINEERING
DEGREE CHECK FORM

Name: Last, First, Middle   ID Number   Graduate Academic Advisor

ADMISSION BASIS:

☐   ABET Engineering Degree: _____

Degree   School

☐   Other Degree: _____

Degree   School

(If Student has ABET accredited BS Engineering degree then go to Part II.)

I. BASIC ENGINEERING EDUCATION:

A. MATHEMATICS (minimum of 16 semester hours of calculus and differential equations).

Course	Subject	School	Credit	Grade

TOTAL MATH _____

B. BASIC ENGINEERING TOPICS (Choose from the following topics and enter the courses chosen in the table below: **Electronics, Circuits, Fluid Mechanics, Thermodynamics, Statics, Mechanics of Materials**) Minimum of 6 hours. A maximum of 12 hours will count towards the Engineering Topics requirement.

Course	Subject	School	Credit Course	Credit Design	Grade

Total Course Credits _____   Total Design Credits _____

II. BIOLOGICAL ENGINEERING BREADTH REQUIREMENTS
(Choose from the following topics and enter the courses chosen in the table below: Biomedical Engineering Principles, Tissue and Cell Engineering, Introduction to Bioinformatics, Modeling of Physiological Systems, **Transport Phenomena, Mechanical Design, Reaction Kinetics, Reactor Design, Bioprocess Engineering, Biosensors, Signal/Image Processing, Control Systems/Theory, Bio-MEMS, Bioinformatics, Instrumentation, Properties of Biol. Materials, Engineering Statistics/Probability, Biomechanics, Unit Operations, Risk Analyses, Hydrology, Ecological Engineering Design**) Choose a minimum of 12 hours and a maximum of 18 hours. At least one of the courses should be equivalent to a design course currently allowed for credit within the BENG undergraduate program.

Course	Subject	School	Credit Course	Design	Grade

Total Course Credits _____ Total Design Credits _____

III. BIOLOGICAL ENGINEERING GRADUATE COURSEWORK (Sum of hours under III.a and III.b must be at least 30)
   a. Core courses (minimum of 13 hours coursework)

Core Courses (minimum of 16 hours)					
Course	**Subject (Credit hours)**	**Design**	**Team-work**	**Engr Topics**	**Grade**
BENG 5103**	ADVANCED INSTRUMENTATION (3)				
BENG 5703**	DESIGN AND ANALYSIS OF EXP FOR ENGR RESEARCH				
BENG 5933 /BENG5203**	MODELING XXXXX				
BENG 5801*	Graduate Seminar (1)				
XXXX 5XXX	Advanced Science Course*** (3)				
XXXX 5XXX	Advanced Science Course*** (3)				

Total Credit Hrs _____   Total Design Hrs _____   Total Teamwork Hrs _____   Total Engr. Topics Hrs _____

 *Required
**Choose two of the three.
***To be selected from the courses approved by the student's graduate advisory committee

   b. Specialization (minimum of 14 hours of which 6 can be thesis hours. A minimum of six hours of course work must have an engineering prefix, i.e. BENG, CENG, ELEG, CHEG, CVEG, INEG, MEEG)

Students must select one of the following areas: **Bioresource Engineering** **Ecological Engineering** **Biotechnology Engineering** All courses must be approved by the student's graduate advisory committee.				
Course	**Subject (Credit hours)**	**Design**	**Teamwork**	**Grade**

TOTAL HOURS OF ENGINEERING TOPICS ☐

(Basic Engineering [I.d.] +Breadth [II] + Graduate Engineering Courses [III])
        (Minimum course work of 48 hours of engineering topics required)

TOTAL HOURS OF GRADUATE COURSE WORK ☐
(Must be at least 30)

**TOTAL HOURS OF 5000 LEVEL OR ABOVE BENG
COURSE WORK** (Must be at least 10) ☐

TOTAL HOURS AT 5000 LEVEL OR ABOVE ☐
 (Must be at least 12 excluding thesis hours)

Thesis option – Thesis Title: _____

        Thesis Approved _____(Thesis advisor)

        Journal Manuscript Approved _____ (Thesis Advisor)

Non-Thesis option – Master's Report title: _____

        Report approved: _____(Graduate advisor)

Approved for degree: _____
                Chair of Biological Engineering Studies