



INTEGRATED BIOMEDICAL ENGINEERING AND HEALTH SCIENCES PROGRAM

HESE THESIS PROJECT APPROVAL FORM

Health, Engineering Science and Entrepreneurship (HESE)

IBEHS 4E09A/B

STUDENT NAME: _____ STUDENT NUMBER: _____
 EMAIL ADDRESS: _____ ACADEMIC YEAR: _____

This is a full academic year project course.

SUPERVISOR INFORMATION

Name: _____	Department: _____
Email: _____	Institution: _____
Phone: _____	Position: _____
Address: _____	

CO-SUPERVISOR INFORMATION (If Applicable) ^

Name: _____	Department: _____
Email: _____	Institution: _____
Phone: _____	Position: _____
Address: _____	

PROJECT INFORMATION

Project Title: _____	
Project Topic Area: _____	
Start Date: _____	End Date: _____

^ Students may require a co-supervisor with an appointment at McMaster University, if their supervisor is not appointed by McMaster. The need for a co-supervisor will be determined on a case-by-case basis.

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Evaluation*:		
Evaluation Criteria:	Evaluated By:	Weight:
Total:		100%

*Evaluation **must** include a written thesis

Outline & Learning Objectives



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Logistics and Health & Safety

	Yes	No
Do you authorize the publishing of your name, contact information and project title to the iBioMed Project Database webpage ?	☐	☐
Have you ensured the student has the necessary Health and Safety (EOHSS) requirements?	☐	☐
Does the project require Research Ethics approval(s)?	☐	☐
Are the students working in a clinical environment where they interact with patients? If yes, complete the questions below:	☐	☐
Are you authorized to allow students to interact with patients?	☐	☐
Has the student completed the required Health Screening procedures as indicated by the Health Screening Office?	☐	☐
Have you completed the required risk management assessment forms?	☐	☐

Supervisor Signature

(Name)

(Signature)

(Date)

FOR OFFICE USE ONLY:

Authorizing Signature: _____ Date: _____

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HESE Thesis Evaluation Samples

The student should discuss the evaluation criteria with their supervisor to ensure that there is clarity. You are strongly encouraged to include a midpoint progress evaluation in December worth 10-20% of the final grade so that you will know whether you are progressing well and meeting expectations.

Below are some evaluation structures used in the past.

Research proposal - 5% Literature review - 15% Draft of thesis - 10% Thesis - 40% Work for data collection - 20% Final presentation - 10%	Background evaluation and data planning - 30% Database completion - 20% Analysis - 20% Presentation - 15% Original hypothesis/planning - 15%	PICO development - 25% Systematic research completion - 10% Filtering articles - 10% Systematic review table - 25% Abstract and results - 15% Manuscript - 15%
Early assessment feedback - 10% Literature review - 20% Progress presentation - 20% Final thesis - 50%	Critical literature review - 20% Experimental design - 5% Experimental procedure - 10% Data gathering - 10% Data analysis - 5% Weekly communications - 10% Final report - 40%	Final paper - 50% Final presentation - 25% Lab performance - 25%
Lab meeting attendance - 10% Foundations on gait analysis - 15% Research methods - 15% Data analysis - 10% Final presentation - 20% Written thesis proposal - 30%	Project plan - 25% Depth, comprehension and problem-solving - 35% Report and background - 25% Literature references and documentation - 15%	Market assessment of bioink manufacturing - 10% Market assessment of bioprinters - 10% Market assessment of companies selling tissue - 10% Patient landscape analysis - 10% Wet lab execution - 10% Weekly update meetings - 10% Final presentation and report - 40%
Final report - 30% Hands-on lab work - 30% Participation during group meetings - 20% Communication skills - 10% Time management - 10%	Lab meeting attendance - 10% Assessment on foundation - 15% Coding and analysis - 25% Research documentation for reproducibility - 25% Final presentation - 15%	Refining the scope of the project (business models, etc.) - 30% Back end database to assist in clinical data collection - 30% Assist research team with clinical study - 40%
Thesis report - 70% Journal paper based on experimental work - 30%	Research proposal/ literature review - 15% Mid-year report - 25% Written thesis - 25% Work performed to collect & analyze data - 35%	Literature review - 30% Participation - 20% Written thesis - 40% Oral presentation - 10%



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Literature review - 20% Data management plan - 10% Research progress update (December) - 15% Research progress update (March) - 15% Final report - 30% Lab book/data records - 10%	Lab performance - 50% Midterm presentation - 10% Final presentation - 20% Final report - 20%	Meeting participation - 15% Timeline and progression - 15% Reading list completion - 20% Drafting proposal - 20% Final paper - 30%
Literature review - 15% Design - 20% Experimentation - 40% Validation and analysis - 25%	Literature review - 15% Project proposal - 15% Project management - 10% Lab work - 20% Final report - 35% Health and safety training - 5%	Proposal - 10% HIREB approval forms - 10% Data collection - 30% Data analysis - 20% Abstract prep - 10% Manuscript - 10%
3-minute thesis - 5% Research summary - 20% Thesis early assessment - 20% Final thesis - 45% Conference presentation - 10%	Experimental performance - 50% Lab performance - 10% Presentations - 20% Data analysis and reports - 20%	Literature review - 20% Weekly reports - 10% Group meeting presentations - 5% Lab performance - 20% Midterm report - 5% Final report - 20% Final presentation - 20%
Project management - 30% Experimental design - 10% Data analysis - 10% Effective communication - 10% Written reports - 40%	Proposal - 10% Proposal presentation - 10% Literature review - 20% Final presentation - 20% Final paper - 20% Lab participation - 20%	Meeting prep - 20% Question preparation - 20% Abstract preparation and final report - 20% Meeting organization - 20% Poster day presentation - 20%
Contribution to scientific knowledge - 65% Teamwork - 20% Integrity towards patients and patient materials - 15%	Literature review - 30% Lab performance - 40% Final report - 30%	3-minute thesis - 10% Abstract - 10% Poster - 30% Thesis paper - 50%
Timeline - 15% Research ethics submission - 15% Data collection and analysis - 15% Update and self-evaluation - 10% Abstract and conclusions - 15% 3MT - 5% Final report and self-assessment - 25%	Defining phenomenon studied - 10% Justifying topic choice - 10% Presenting research question - 10% Describe data collection method - 10% Choosing and reporting data - 10% Quality of final report - 25% Student work/involvement - 25%	Oral presentation - 10% Research proposal document - 30% Oral presentation of thesis - 20% Overall performance appraisal - 10% Final written thesis - 30%



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Final written thesis - 45% Lab work - 35% Technical Presentation (April) - 15% 3-minute thesis - 5%	Experimental performance - 50% Lab performance - 10% Presentations - 20% Data analysis & reporting - 20%	Final report - 100%
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