LSM4299 APPLIED PROJECT IN LIFE SCIENCES (16 Units; Graded) [Also known as FYI]

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1. Course Description

For students pursuing Bachelor of Science (Honours) degree with primary major in Life Sciences, to participate full-time in a six-month-long project in an applied context that culminates in a project presentation and report. For Cohort AY2020/2021 and earlier.

2. Rationale

LSM4299 Applied Project in Life Sciences (also known as FYI Final Year Internship) is an option offered to Life Sciences Majors (from Cohort AY2020/2021 and earlier) to be considered for the completion of the Level 4000 Honours year Major requirements. Differing from and as an alternative to LSM4199 Honours Project in Life Sciences which generally involves a topic of basic or preclinical research, LSM4299 serves as a platform to accommodate internship and professional placements in applied and industrial contexts, as well as projects that are of non-basic/preclinical science research nature. Relevant projects of non-academic research nature may be in the areas of, but not limited to, administration and management, outreach and public awareness, marketing, and business strategy, etc.

Please note that unlike LSM4199, this course LSM4299 does not contribute to the fulfillment of a specialisation in Life Sciences Major. Also note that unlike UPIP, LSM4299 projects need to be broadly related to Life Sciences.

3. Criteria

These are the criteria to be met to be recognised as an opportunity for LSM4299:
- An internship encompassing a project with defined aims/objectives and deliverables.
- An applied context relating in any way and extent to Life Sciences.
- A length of full-time commitment of 20-24 weeks.
- Preferably (but not necessarily) to be based out of the University. (If the internship is within the six Life Sciences teaching departments, it should clearly be of non-academic research nature. For example: An internship project on teaching and pedagogical research with an educator track faculty member within the 6 Life Sciences departments in NUS.)

4. Pre-requisites
   a. Fulfillment of the major requirements of Life Sciences at BSc standard (i.e., Levels 1000, 2000 and 3000 Major Requirements); and
   b. Obtained a minimum overall GPA of 3.20 on completion of 100 Units or more.

5. Aims and Learning Outcomes

An Honours level project in an applied context immerses and prepares Life Sciences Major students with practical experience that differs from the nature of basic and preclinical science research. This is an equivalent to the default Honours year research project for students whose interests and directions lie beyond research in an academic environment.

This course acts as a platform for interested students to:
   a) Initiate and engage full-time in a credit-earning project which deviates from the default basic and preclinical science research.
   b) Participate in a credit-earning project that serves as partial fulfilment to the Honours year requirements for Life Sciences Major.
   c) Provide opportunities for students to translate knowledge learnt in the class to perform technical assignments in an actual working society.
   d) Pick up the desired work attitudes and professionalism through learning and interactions with supervisors, co-workers, clients, and other people related to the organisations/companies where the project is conducted.
   e) Appreciate and internalise intangible attributes such as working independently as well as in a team, safety consciousness, and info-communication technology proficiencies.
   f) Have a head-start in your career search before graduation.

This course also allows participating organisations/companies to be aware of NUS Life Sciences Major students and graduates, as well as to participate fully as our partners in cooperative education.

6. Workload, Duration and Timeline

Students embarking on an LSM4299 Applied Project will commit 20-24 weeks (i.e., 5-6 months) of full-time work. In academic records this is regarded as a course that is one regular semester in duration. Any additional internship work conducted beyond the initially stipulated duration of 20-24 weeks will not be factored into the evaluation of student's performance in the LSM4299 course. Participating students are **strongly not encouraged** to read other courses in NUS during the working hours within this period of commitment. Students may take LSM4299 in either Semester 1 (starting in June/July) or Semester 2 (starting in November/December), and complete courses for graduation requirements in the other regular semester.

For LSM4299 to be completed in:	Semester 2 AY2023/2024
Official semester window	15th January to 11th May 2024
Minimum duration	20 weeks
Application deadline	8th December 2023
Latest start date	18th December 2023
Latest end date	10th May 2024
Workplace supervisor evaluation	Week 10 to 12
Report and presentation slides to be submitted by	Week 13 (19 April 2024)
Presentation would be scheduled	Week 13 to Reading Week (15 Apr – 26 Apr 2024)
Course registration / Grade issue in	AY2023/2024 Semester 2

7. Procedure

a) Internship Search

To look for a suitable and approved internship for LSM4299, please apply via NUS TalentConnect. Remember to add "FoS – (LSM4299) Life Sciences Final Year Internship" in the experiential learning under "My Experiential Learning". Self-sourced internships are to be mounted by employers onto TalentConnect and listed with LSM4299, to be approved by the department before students can apply.

b) Application to LSM4299

All applications to LSM4299 must go through NUS TalentConnect. The company is expected to upload their internship openings onto the portal for students to officially apply for the course. This applies to self-sourced internships as well.

Application process via NUS TalentConnect:
1) Company uploads listing onto NUS TalentConnect Portal under LSM4299.
2) Student applies for internship listing.
3) Company accepts and offers position to student via the portal.
4) Student accepts the offer via the portal.
5) Application to LSM4299 completes.
   *Missing out any of these steps will result to your application not being recorded.

c) Project/Internship Work Plan – *By Student in Consultation with Workplace Supervisor*

Every project/internship crafted for LSM4299 must be reviewed and approved by the LSM4299 Coordinating Committee. A Work Plan is required as part of the application. It should include:
- Name of Organisation / Company / Institution / Unit
- Workplace Supervisor
- Project Title
- Project Aims/Objectives
- Project Description
- Relevance of Project with regards to Life Sciences
- Specific timeline/deadlines for assessments (see below Section 8. Assessments)

Note that this is not the version mentioned in TalentConnect (please ignore that for LSM4299). The department will send an online form (Project Information Form) to all successful applicants to collect project information after the application closes for the cycle. The course LSM4299 will then be preallocated in CourseReg after we receive your response to the online form.

d) <u>LSM4299 Staff Assessor</u>
Every student taking LSM4299 will be assigned a staff assessor; students need not search for someone to be the staff assessor.

A briefing will be conducted for enrolled students in July (for Semester 1 participation) and in December/January (for Semester 2 participation)

8. Assessment

    A. Monthly log submissions (10%)
    B. Performance assessment at workplace (40%)
    C. Individual Presentation (20%)
    D. Report (30%)

A. Monthly log submissions (10%) – *Assessed by Staff Assessor; submitted by Student every month.*

A total of **five** work progress logs must be submitted. Each log is submitted monthly in Canvas and each successfully received log will be awarded up to 2% to the final score.

B. Performance assessment at workplace (40%) – *Assessed by Workplace Supervisor; submitted by Workplace Supervisor at the end of the project. This would be coordinated by the LSM4299 committee.*

An assessment of the work performance of the student would be carried out by the workplace supervisor at the end of the project.

	Criteria	Full Marks
(a)	**General Work Attitude** (i.e., attendance, promptness in meeting timelines, professional conduct and outlook)	
(b)	**Initiative and Relevant Skills/Competencies** (i.e., pro-activeness; logical and systematic problem-solving capacity; ability and proficiency in performing the assigned work/tasks)	
(c)	**Teamwork** (i.e., ability and willingness to work co-operatively with others as a group/team to achieve common objectives)	
(d)	**Flexibility** (i.e., ability to adapt and work effectively in different situations and contexts; capacity to deal with changes)	
	Total	**40**

C. Individual Presentation (20%) – *Assessed by Staff Assessor; presented by Student at the end of the project.*

An individual presentation would be delivered by the student at the end of the project, to give an overview of the job and project experience in about 10 minutes, and should cover:

- Job responsibilities and profile of the company/organization.
- Description, progress, and deliverables of project.
- Skills learnt and their impacts on individual career development, as well as the connections between the project completed and the knowledge received from the undergraduate Science and Life Sciences education.

	Exceeds Expectations	Adequate	Unsatisfactory	Marks:
Content and Presentation	• The title and aims of internship clearly stated from the beginning. • Clear introduction of company and internship presented. • Description, progress and deliverables of internship explored precisely. • Clear conclusions from internships and has future directions of individual career development.	• Vague title with no aims of internship. • Attempts introduction of company and internship but does not fully succeed. • Included description, progress, and deliverables of project but they are not clear. • Little to unclear conclusions from internship and vague future directions of individual career development.	• Lack title of Internship. • Introduction of company and internship not presented appropriately. • Little or no description, progress, and deliverables of project. • No conclusions from internship and future directions of individual career development.	
Clarity and Engagement	• Speech is loud and clear, confident and keeps eye contact with the audience. • Uses natural gestures and movements. • Well-rehearsed with no 'reading' from slides or script. • Answered questions with confidence.	• Clear speech from student. • Uses a few gestures or movements but does not look natural. • Make infrequent eye contact; 'Reads' from notes most of the time. • Ambiguous answers for questions.	• Unclear speech (too fast/too slow) with some stuttering. Voice too soft. • Unengaging presentation. Lacks confidence. • 'Reading' directly from slides or notes. • Could not answer questions.	
			Total	**/20**

D. Report (30%) – *Assessed by Staff Assessor; submitted by Student at the end of the project.*
A self-evaluation report would be submitted by the student at the end of the project, covering contents including:

- Description and profile of the company/organization/section/department.
- Job responsibilities and project undertaken.
- Progress of project and how the deliverables may translate to business strategy/solution.
- Reflections on skills picked up and how these would impact individual career development, as well as the connections between the project completed and the knowledge received from the undergraduate Science and Life Sciences education.

	Exceeds Expectations	Adequate	Unsatisfactory	Marks:
Coverage and Quality	• Clear title produced. • Clear description and understanding the nature of the business that the organization is in. • Clear and attractive report. No spelling or grammar mistakes.	• Vague title produced. • Description and understanding the nature of the business that the organization is in could be clearer and/or better organized. • Clear report with few spelling and grammar mistakes.	• No title produced. • Lack of description and understanding the nature of the business that the organization is in. • Formatting inconsistencies. Spelling and/or grammar mistakes on slides.	
Communication and Critical Thinking	• Very well written with a clear view of future directions and individual career development. • Demonstrate a clear aptitude for learning new things. • Able to express data concisely, clearly, and convincingly	• Generally written well with vague conclusions and future directions of individual career development. • Demonstrate little motivation for learning new things. • Attempt to express data concisely, clearly, and convincingly	• No conclusions and future directions of individual career development. • Did not demonstrate any motivation for learning new things. • Unable to express data concisely, clearly, and convincingly	
Connections	• Clear relevance to Life Sciences. • Managed to apply Life Sciences knowledge to the internship.	• Unclear relevance to Life Sciences. Struggling to link various points to prove relevance. • Attempt to apply Life Sciences knowledge but lack clarity.	• Unable to find a relevance to Life Sciences • Unable to apply knowledge from Life Sciences to internship	
			Total	**/30**
Comments:				

The direct total score of the four assessment components would be the final score to the course.

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