UNIVERSITY OF GREENWICH SCHOOL OF SCIENCE

In partnership with the

OCTOBER UNIVERSITY OF MODERN SCIENCES & ARTS,
6th October City, Cairo, Egypt.

B.Sc. Biotechnology
Faculty of Biotechnology

Student Handbook
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Listed below are the due dates for each segment of the Graduation Project. Any item may be submitted for review before the due date; however, no portion of the project may be submitted after the FINAL date listed below. Any student who fails to successfully complete the Graduation Project will not graduate at the end of the academic year and will be required to repeat their senior year in order to complete their Graduation project.

   No one will receive an extension for time unless s/he can prove that there was an extreme and documented emergency that is approved by the Graduation Project Team and/or the Dean .................................................................................................................. 70

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Purpose of Student Handbook

This handbook is provided as a service to the Faculty of Biotechnology, MSA University student body and contains information regarding student life and services at the faculty. Issues and concerns regarding student life are addressed in the Student Handbook. This handbook is a guideline only and not a contract. Specific policies and procedures may be changed at any time without prior notice.

The *Student Handbook* contains information regarding student rights and responsibilities, including academic integrity and a definition of plagiarism, and a clear description of the nature, extent, and availability of all student services and activities.

The *Student Handbook* therefore includes information concerning relevant policies. This will include admissions, academic progress, grading, assessment, supervision, examinations, academic advising, careers, student discipline, academic offences, grievances, appeals, student activities and student life, student rights and responsibilities, student records, privacy and confidentiality.
1. Faculty of Biotechnology Dean’s welcome

Welcome to MSA University, where education takes place at the frontier of what is known and what is yet to be discovered. Our programmes invite students to go beyond the boundaries of the classroom through fieldwork and original research. Our students learn the techniques of biotechnology in laboratories outfitted with advanced technology; they absorb the principles of conservation.

To guide them is a talented group of faculty members who combine teaching with a passion for research and public service. Their work to understand the nature of biological systems, manage and conserve natural resources, improve agricultural profitability and sustainability, enhance health and nutrition, and foster economic development. This synthesis of talent and expertise creates opportunities for students to follow their intellectual interests across traditional fields of study through interdisciplinary courses and programmes. And by participating in faculty-supported outreach initiatives that benefit the state and the region, students find greater meaning in their studies and a way to test future goals.

Best regards

Prof. A. Diab
2. Introduction to MSA University

October University for Modern Sciences and Arts (MSA) was established under Presidential Decree No. 244 in 1996 to introduce state-of-the-art technologies and concepts in all disciplines. MSA is proud that its different programmes were fully accredited before the graduation of its first class in Spring 2000.

As an institution, MSA is a natural outcome of over 40 years of experience in the field of education, at local and international levels. Dar El Tarbiah was the first Language School founded by Egyptians in 1956. The institution has maintained an excellent reputation based on the high quality of teaching and facilities; it has been recognized locally and internationally for the excellent results of its GCE, IGCSE, GCSE as well as the Egyptian General Certificate of Education and the American Diploma programmes. Our success in teaching all AL (Advanced Level) and AS (Advanced Subsidiary) subjects for almost 12 years with outstanding results in the IGCSE has been the driving force in the establishment of the MSA University.

MSA is an English Language instruction medium University. The current academic work of the University is divided into eight faculties, namely: Faculty of Management Sciences, Faculty of Engineering, Faculty of Computer Science, Faculty of Mass Communication, Faculty of Languages, Faculty of Pharmacy, Faculty of Dentistry and Faculty of Biotechnology. At MSA we are dedicated to the pursuit of excellence in curricula, facilities, staff and students. That is the main reason why our modern and progressive policies and up-to-date educational facilities have been internationally acknowledged by several universities in the UK and USA with which we have several co-operation agreements. MSA programmes are designed and implemented according to the most demanding international standards. All course outlines highlight the role of new and emerging technologies in meeting the challenges posed by the information and communication technology era.

In 2004, MSA was granted the right to establish three more faculties:

1. Faculty of Biotechnology.
2. Faculty of Dentistry.
3. Faculty of Pharmacy.

The faculties are located at the 6th of October campus which provides excellent facilities for education and training in the previous disciplines.

The Bachelor degree in Biotechnological Sciences is a four year full time programme of study aimed primarily at educating and training graduates for the medical, pharmaceutical, agricultural, environmental, and industrial biotechnology as well as advanced applications of biotechnology.
The Faculty of Biotechnology at the MSA aims at fulfilling an urgent academic and national need for establishing faculties that cater for a growing demand for graduates in the scientific and technological fields.

MSA Faculty of Biotechnology introduces a solid basis and hands-on experience needed in this field, through work on campus and internships with biotechnology-related firms, allowing students to grasp the latest trends in biotechnological sciences.

MSA University believes that such knowledge is essential for Egypt to take the lead in biotechnological fields on both the domestic and regional levels. This is important for the development of Egyptian economy under the World Trade Organization (WTO) regulations taking effect in 2005.

MSA aims to provide its students with an exceptional and enjoyable learning experience that will enable them to successfully compete in the highly competitive global job market. Furthermore, the long experience of Dar El Tarbiah Institution and MSA University in the field of education has made us determined to adopt the British system of education because of its unique characteristics of providing a "well rounded" student able to face the exciting challenges of the future.
3. Introduction to the Faculty of Biotechnology

MSA Faculty of Biotechnology offers state-of-the-art courses covering a wide spectrum of biotechnological sciences applications in health, agriculture, industry, pharmaceuticals and environment, in fulfillment of the rules and regulations of the Supreme Council for Egyptian Universities. MSA Faculty of Biotechnology offers up-to-date courses that cover a wide spectrum of biotechnological sciences, within the framework of the rules and regulations of the ESCU as well as of our British partner.

These courses are carefully tailored to cover the knowledge gap in fields like gene therapy, drug design, genomics, proteomics, genetic engineering for plants, animals, microorganisms, bioinformatics and fermentation technology. These courses are designed according to the international standards of this fast developing discipline in preparation for their eventual inclusion in a Validation Agreement to be signed by MSA University and a Greenwich University.

Biotechnology students at MSA University are exposed to the rapidly growing information revolution in the biotechnological sciences, and are supplied with the latest laboratory equipment worldwide. Huge investments are geared to provide excellence in scientific education.

MSA Faculty of Biotechnology trains biotechnologists to play an active and creative role in their profession. Graduates may take up a career in medical gene therapy, pharmaceutical; production of genetically engineered drugs, microbiology, virology, agricultural, environmental science and forensic science.
4. Introduction to the University of Greenwich

The University of Greenwich offers the best of worlds, city and country. As a student you are on the doorstep of London, but with the cream of Kent - rolling hills, pub-to-pub walks, seaside resorts and historic sites - not far away.

Education is about breadth as well as depth. It is about places and people, sights and heritage as well as books and keyboards. So let us tell you a little about how we were born and how we have grown.

The university traces its roots to 1890, when Britain’s second polytechnic was opened near the Thames at Woolwich to teach practical and commercial skills to London workers. An innovator from the start, the polytechnic pioneered the country’s first part-time day-release and sandwich courses. Over the years a range of specialist organizations have joined the institution, giving it diverse strengths in subjects such as teacher training, architecture, engineering and history. The name Thames Polytechnic was adopted in 1970. We became the University of Greenwich when we were awarded university status in 1992.

The university is proud of its diverse student body. People from more than 100 countries choose to study at Greenwich, part of an international student community of 4,000. Services for students with disabilities or who have dyslexia give support to more than 1,000. Many of our black and other ethnic-minority students participate in a mentoring scheme which pairs them with highfliers in the City and elsewhere. Students benefit from a research environment where staff shares their expertise and specialist facilities. At Greenwich we set high standards for teaching quality and provide professional training opportunities for all lecturers. We also measure students’ views on our services through our annual student satisfaction survey, and if shortcomings are found we address them.

Each year the university offers its most distinguished buildings as part of the London Open House architectural festival, an event enabling the public to appreciate some of the capital’s architectural gems.

The university also takes part in the annual Greenwich and Docklands International Festival, a celebration of music, theatre, dance and other performing arts in and around the borough. Our ongoing support of Black History Month has brought a range of special events to the Greenwich Campus, including talks, presentations and exhibitions.

Also on the Greenwich Campus, the Stephen Lawrence Gallery showcases the work of artists from all backgrounds. Recent exhibitions include Trace, a work examining the processes of memory, and Candy Pop and Juicy Lucy, staged within an ice cream van, and inspired by the artist's childhood memories of her father's job selling ice creams.
### 5. Subject/Programme Staff List and contact details

<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Job Title</th>
<th>Campus</th>
<th>Ext.</th>
<th>Email Adress</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prof. Ali Diab</td>
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<td>5</td>
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<td>8</td>
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</tr>
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<td>9</td>
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</tr>
</tbody>
</table>
6. **B.Sc. Biotechnology programme specification**

**October University for Modern Sciences and Arts (MSA)**  
Faculty of biotechnology  
Program specification

1. **Awarding institution:** October University for Modern Sciences and Arts (MSA).

2. **Teaching institution:** Faculty of Biotechnology, MSA.

3. **Accredited by:** The Egyptian Supreme Council of Universities (ESCU) and the Committee Sector for Biotechnology Education (CSBE).

4. **Final award:** B.Sc. of Biotechnological Sciences.

5. **Program Title:** Biotechnology program

6. **UCAS code:** G70 (Greenwich University Code)

7. **QAA group:** Dr. Heba Othman (Head), Reham Mohsen and Aicha Tigani
8.a. Educational aims of the program and potential career destinations for graduates:

MSA seeks to graduate an army of Biotechnologists, armed not only with the academic knowledge but also with the skills and abilities to invade the challenging Biotechnology industries and a strong will and sheer motivation directed towards the improvement of life. Graduates keen on making a difference in the world, by treading into the unventured realms of Biotechnology, and insistent upon reaching their goal and influencing the world around them. Our aim is to prepare bright young scientists for a challenging career in medical, pharmaceutical, agricultural, industrial and environmental biotechnology.

The career of biotechnology students is very promising in research, production, development and manufacturing such as genetic counseling, clinical molecular diagnostic laboratories pharmaceutical industry, biotech industry, crops genetics and tissue culture, food industry, forensic sciences, bioinformatics, environmental agencies, and academic careers. The breadth and multi-disciplinary character of the biotechnology degree, along with the ever-changing nature of biotechnological services, places the biotechnologist in a pivotal place for unlocking the mystery of life and improve the quality of life.
8.b. **Summary of students’ skills development within the program:**

During the past four years, the students’ skills have been greatly developed through the well-designed programme that offered to the students several opportunities to enhance their skills through the following:

1- **Field Trips:** Field trips are an excursion outside the classroom or laboratory and it used to complement material taught or be a primary teaching activity for students

2- **Summer Training:** In order to create talented and skilled resources for the biotechnology students, the faculty of biotechnology has designed a program for summer training to provide students with theoretical and practical training needed

3- **Media:** In order to build personal tactics, the faculty of biotechnology picks the best graduation projects and introduces them to the media (News paper, Radio and TV).

4- **Conference:** Two conferences “The annual International Conferences for Applications of Biotechnology” were held on October, 2008 and October 2009. The student’s session is one of the most interesting parts at the conference; it aims to bring young scientists together to discuss their current research and show their skills and knowledge.

5- **Graduation projects:** Graduation project is a sparkling experience for the students, which connects parts of every student’s educational responsibilities in the faculty of biotechnology.

6- **Guest Speakers:** In some courses, expert speakers from industrial private sectors have been invited to give lectures and seminars to drive their experience and knowledge to the students to figure out the links between the academic and business.
A. Knowledge and understanding:

1. Supplying appropriately trained graduates involved in the industry of design and delivery of the Biotechnological Sciences programme.
2. Producing a balance between academic and vocational training, to equip graduates with a flexible knowledge and skills base to enhance employment and career opportunities in the different fields of Biotechnology.
3. Understanding and judgment of a wide range of scientific principles.
4. Providing high quality teaching, scholarship and research which, forms an appropriate learning environment for an undergraduate programme.
5. Developing underlying themes of biology and chemistry in relation to the Biotechnological sciences.
6. Enhancing professional qualifications and post-graduate study in the different fields of Biotechnology.

A. Teaching and learning:

A 1 to A 6 are delivered through Lectures, tutorials, laboratory-practical classes. At level one, lectures are intended to supply core principles and information; and tutorials will provide an opportunity for the students to apply these principles through participation in interactive learning. However, as students progress towards more independent learning they will be expected to extend and supplement material by using currently available literature and electronic sources of information.

A. Assessment Methods:
The assessment methods associated with each course are given in the course specifications. Courses are assessed in various ways, utilising typically a combination of coursework, laboratory practical sessions and examinations. The nature of the coursework is appropriate to the subject area and learning outcomes outlined in the course specification forms.

Skills:

B- Intellectual skills:

1. Enhancing the creative skills to use biological materials to solve medical, pharmaceutical, agricultural and environmental problems.
2. Stimulating and challenging reasoning ability in teaching students to think as Biotechnologists.
3. Developing the abilities to apply analytical, planning, biological and operating skills to solve interaction problems and find solutions to improve the standard of living.
4. Developing student’s appreciation of the strategies of medical, pharmaceutical and agricultural companies.
5. Producing research proposals and scientific documentation.
7. Provide an idea about the different branches and applications of biotechnology with special emphasis on the fundamental principles of handling and manipulating DNA in different organisms.
8. Developing knowledge about molecular structure, organization and function of the genetic material in different organisms.

B Teaching and learning

Intellectual skills are developed through lectures, tutorials and coursework assignments. The preparation of an extended independent final year project encourages independent teaching and learning activities.

B Assessment Methods:

A variety of assessment methods are used that include formal examinations, essay coursework, oral presentations and a written research in the final year.
C- Practical Skills

1. Safe handling of chemical and biological materials, taking into account their physical and chemical properties, including any specific hazards associated with their use.
2. Applying the standard biotechnological laboratory procedures and operating the standard biotechnological instruments.
3. The ability to undertake risk assessments concerning biotechnological procedures and practices.
5. The ability to discuss and negotiate issues related to ethics and biosafety regulation of Biotechnology.

D- Transferable skills:

1. Enhancing oral and written communication skills.
2. Enhancing problem solving abilities.
3. Developing a student's intellectual and imaginative powers.
4. Ensuring that the student is capable of working confidently and adopting a mature, professional and safe approach in their work.
5. Team work and the ability to tackle a practical work.
6. Communication and analysis of the results, data, arguments and cases.
7. Numeration and computation, including such aspects as error analysis, order-of-magnitude estimations and correct use of units and modes of data presentation.
8. Information retrieval in relation to primary and secondary information sources, including information retrieval through online computer searches.
9. Information technology skills, including word processing, spreadsheet use, database use and Bioinformatics software.
10. Time-management and organization, as evidenced by the ability to plan and implement efficient and effective modes of working.
11. An ethical attitude and approach.
12. Analysis and critical appraisal of published literature with research.
14. Acquire research and analytical skills.
15. Ability to isolate and identify genes of interest and modify its structure to be transferred to and from different organisms.
16. Developing the student's ability to make an effective contribution to employment.

C. Teaching and learning

Subject practical skills are developed in a coordinated and progressive manner throughout the programme. These skills are highlighted in the practical labs and laboratory sessions.

Practical sessions associated with molecular biology, biotechnology and cell and tissue culture courses will train students for employment in the Biotechnological industry. Critical analysis skills are developed throughout the course in both practical-based and class-based scenarios in preparation for the critical evaluation.

C. Assessment Methods:

A variety of assessment methods are used to assess subject practical skills, critical review of modern analytical techniques, and computer generated and statistical evaluations of biological data.

All assessed laboratory reports will be written according to accepted Good Laboratory Practice (GLP).

D. Teaching and learning

Computer, problem-solving, teamwork, practical laboratory and presentation skills are developed.

These skills are enhanced in seminars, journal club, workshops, practical laboratory sessions and coursework assignments.

D. Assessment Methods

A variety of assessment methods are used to assess transferable key skills. These include problem solving assignments and peer-reviewed oral presentations. These assessments are contextualised in A, B and C above.
<table>
<thead>
<tr>
<th>17. Ability to contribute to the development of research through reflective practice and innovation.</th>
</tr>
</thead>
</table>
11. Programme Structure: Levels, Courses and Credits

The BSc in Biotechnology degree requirements are designed for completion in four years. Students admitted to the program start in the fall semester and proceed through the required courses as a cohort. Graduates of this program are expected to have the knowledge and skills needed to assume roles in various areas of biotechnology: as academic educators, as scientists in both academic and industry settings, as members of decision-making business and management teams in government and biotechnology firms, as bioentrepreneurs, and as members and leaders of governmental, public, and private organizations that deal with social, ethical and legal issues in biotechnology.

- **Number of credits:** minimum of 169 credit hours.
- **Levels:** 1, 2, 3 and 4 Levels.
- **Award:** BSc Biotechnological Sciences.

The B.Sc. Biotechnological Sciences degree is granted to students who successfully complete a minimum of 169 credit hours divided as follows:

- 26 credit hours of University requirements.
- 10 credit hours of collateral requirements.
- 133 credit hours of core requirements.

The 26 credit hours of University requirements are English Language, Computer Science and Mathematics courses.

The 10 credit hours of collateral requirements are courses that tackle aspects in Marketing & Management Sciences, Regulatory & Ethical aspects of Biotechnology and Research and Seminar.

The 133 credit hours of concentration requirements are the courses that cover aspects like: Biology, Chemistry, Genetics, Biotechnology, Microbiology, Physics, Biochemistry, and Biochemical Engineering & Instrumentation.
12. Awards, Credits and Progression of Learning Outcomes:

MSA Faculty of Biotechnology offers a four-year program inclusive of a preliminary year. During this preliminary year the Faculty provides intensive training in English, the language of instruction of courses. It also provides computer skills that are essential to introduce students to the technological revolution that continually produces fresh information, and help them monitor such breakthroughs on the internet and universities worldwide.

The degree is awarded upon successful completion of the Biotechnology program comprising 169 credit hours, normally completed in four academic years (8 semesters). Each semester is composed of 14 weeks excluding the final examination period. The program is divided into study units called courses. Each course on average has a load of 3 credit hours. Courses are designated at levels 1, 2, 3 and 4 indicating progressively more advanced studies. A system of prerequisites is used to ensure that a student taking a course has undertaken the necessary preparatory work.

Progression of Students

The progression of biotechnology students at MSA is based on pre-requisite system. The student cannot progress to the next course without having passed its pre-requisite course. Courses of the first semester have no pre-requisites except the English course ENG 101, that requires passing the MSA English placement exam.

Year progression is based on students’ achieved credits which can be mapped into level progression of the Greenwich University as follows.

<table>
<thead>
<tr>
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<th>UoG Level</th>
<th>MSA Year</th>
<th>MSA Achieved Credits</th>
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<td>3</td>
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The Overall Program Curriculum

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<td>Computer Science</td>
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<td>CSB101</td>
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<td></td>
<td></td>
<td>CSB201</td>
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<tr>
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<td></td>
<td><strong>3 courses</strong></td>
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<tr>
<td>English</td>
<td>University Requirement</td>
<td>ENG101</td>
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<td></td>
<td></td>
<td>ENG102</td>
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<tr>
<td></td>
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<td>ENG201</td>
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<tr>
<td></td>
<td></td>
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| Total              | 44 courses                                    | 169 |
# For the B.Sc. Degree in Biotechnology by Semester

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**Total** 22 15 14 29

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### Fourth Year – First Semester

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<th>Pre-requisite</th>
<th>Theor.</th>
<th>Pract.</th>
<th>Tutorial</th>
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<td>Introduction to Biosafety and Risk Assessment</td>
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<td>2</td>
<td>Marketing</td>
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### Fourth Year – Research Project

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<td>• Industrial Biotechnology</td>
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<td></td>
<td></td>
<td></td>
<td>• Environmental Biotechnology</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• Agricultural Biotechnology (Plant)</td>
</tr>
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<td></td>
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<td>• Agricultural Biotechnology (Animal)</td>
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<td>• Medical Biotechnology</td>
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<td></td>
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### Elective Courses

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<tr>
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<td>2</td>
<td>BT310</td>
<td>Host plant resistant</td>
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<td>BCHM301</td>
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<td>BT311</td>
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<td>MB303</td>
<td>Advanced Immunology</td>
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7. Admissions
Undergraduate Admissions Policy.

Faculty of Biotechnology Undergraduate Admissions Policy has clear criteria some of which are qualitative and others are quantitative. These criteria are consistent with the Faculty's mission and set appropriate admissions criteria to the requirements of the program that are offered. It is published in the Faculty documents. This policy is applied consistently to all applicants and is evaluated regularly.

a. Undergraduate Admissions Policy Aims

As Faculty of Biotechnology aims to maintain a high academic standard, create a student body that is balanced and diverse in terms of background and experience, with all the educational and cultural benefits that this brings and to recruit students who will engage with and contribute to the intellectual and cultural vitality of Faculty of Biotechnology community. It assesses each application carefully and fairly and offers places to applicants who have the potential to do well. The Principles and Procedures through which Faculty of Biotechnology assesses applications and accept applicants are designed to be:

a) Easily understood by candidates
b) Transparent
c) Fair

Faculty of Biotechnology will continue to review its Principles and Procedures annually in the light of experience, research and best practice.

b. Criteria for assessing candidates

a) The Faculty must set criteria that support the Faculty's Admissions aims and be in accordance with the principles and procedures stated in this document.
b) Admissions staff is expected to use professional judgment in assessing the academic potential of individual candidates, taking a number of factors into consideration, including educational and social context. In exercising their judgment, admissions staff must operate in a way that is consistent with the Faculty's Admissions Aims.
c) Only students with a Secondary School Certificate, or its equivalent, who meet minimum admission requirements can be accepted.
d) The primary language of teaching in the Faculty is the English language. Hence, the Faculty must be confident that the candidate has the proficiency in the English language necessary to succeed.
e) Candidates are not discriminated against on the grounds of race, ethnicity, nationality, gender, sexuality, religion or disability.
f) Consideration of applications from students who declare a disability is based on the same criteria and principles as for other candidates. Faculty of Biotechnology is seeking to reduce any barriers that might confront a student with a disability. A decision may need to take into account any overriding health and safety concerns, barriers relating to professional requirements, or the Faculty's ability or inability to make any necessary adjustments. Such cases will be addressed on an individual basis. Implementation of the Admissions Principles and Procedures will be sensitive to the different experiences of disabled applicants, and will take into account their response to the opportunities and challenges they have encountered, on the understanding that these may be individual to the applicant.
g) Attending a non-accredited preparatory course or summer school can help students prepare for Faculty life, but does not in itself guarantee a place, although it may be taken into account as an indicator of motivation and commitment.

c. Application Procedure
   a) A reservation deposit of 2500 L.E, which is fully applied toward tuition, is required upon acceptance for admission.
   b) All Student should submit an official high school/secondary school certificate or its equivalent as approved by the Ministry of Education and an official high school/secondary school transcript (academic record) in the original covering the last three years and reflecting a good academic standard. Students should consult the admissions Representative for pertinent requirements.
   c) Students should submit evidence of English language proficiency.

d. Registration Procedure
   Upon acceptance, each student will be informed by the Admission Office that they are permitted to register. New and returning students register on specifically announced days at the beginning of each semester and summer semesters. The Dean and program leader must approve the appropriate courses for the student's program. A student may not attend classes unless registered. The student's registration is finalized by the payment of tuition.

e. Readmission Policy
   When a student is readmitted to Faculty of Biotechnology after a period of absence, he or she must fulfill the requirements for the class with which he or she will graduate. However, any courses previously taken to satisfy the Program requirements will be counted. A student should contact the Registrar's Office and his or her faculty advisor to determine degree requirements applicable.
   A freshman student returning after a period that is less than three semesters will follow the academic policy of the Faculty Catalog of the year of his/her original admission. If a freshman returns after more than three terms of leave, he/she will follow the academic policy existing at the time of readmission.
   A student who has been away for more than a year must submit a valid medical certificate.
8. General Rules & Regulations

Student Rights and Responsibilities

The goal of the Student Rights and Responsibilities Policy is to ensure appropriate student behavior is maintained in a diversified educational environment. It ensures transparency and consistency in expectations for conduct, as well as the address of and remedies for misconduct that are corrective, not punitive. This policy governs the non-academic behavior of students, identifies student rights and responsibilities, identifies behavior that is considered non-academic student misconduct, ensures transparency, consistency and predictability in policies and procedures, identifies the process by which student non-academic misconduct will be addressed and the avenues of appeal and ensures all members of Faculty of Biotechnology have access to the Student Rights and Responsibilities Policy.

Faculty of Biotechnology is a community of scholars in which the ideals of freedom of inquiry, freedom of thought, freedom of expression, and freedom of the individual are sustained. Faculty of Biotechnology is committed to supporting the exercise of any right guaranteed to individuals by Faculty of Biotechnology and to educating students relative to their responsibilities.

a. Student Rights:

Faculty of Biotechnology seeks to maintain an environment where students have the following rights:

i. Expression - Students can freely examine and exchange diverse ideas in an orderly manner inside and outside the classroom.

ii. Association - Students can associate freely with other individuals, groups of individuals and organizations for purposes which do not infringe on the rights of others.

iii. Freedom from Discrimination - Students can expect to participate fully in Faculty of Biotechnology community without discrimination as defined by Faculty of Biotechnology regulations;

iv. Safe Environment - Students can function in their daily activities without unreasonable concerns for personal safety.

v. Privacy - Students are free of unreasonable intrusions into personal records and/or matters relevant to identity, living space and well being;

vi. High Quality Resources - Students have access to high quality resources which support intellectual and social development;

vii. Counseling - Students have access to support in managing personal adjustments, understanding self and others, and career planning and personal decision making;

viii. Grievance Process - Students have access to established procedures for respectfully presenting and addressing their concerns/complaints to Faculty of Biotechnology;

ix. Learning Beyond Formal Instruction - Students have access to a variety of activities beyond the classroom, which support intellectual and personal development.

x. Education - Students have access to excellent faculty, academic technology, classrooms, libraries, presentations and other resources necessary for the learning process.
xi. Participation in Community Affairs - Students have opportunities to interact with people and institutions both within and beyond Faculty of Biotechnology community.

xii. Prompt Responses from Administration - Students have the right to expect prompt and courteous responses from the Faculty’s academic and administrative departments.

xiii. Academic and Administrative Policies - Students can expect academic and administrative policies that support intellectual inquiry, learning, and growth.

b. Student's Responsibilities

In order for students to learn and Faculty to teach, an environment conducive to learning must prevail. Therefore, in order to generate a positive Faculty environment, students will be responsible for and held accountable for exhibiting the following behaviors:

i. Students are to practice, in words and actions, courtesy and respect to Faculty members, Faculty employees, fellow students, and visitors.

ii. Students are expected to complete all assigned class work by the assigned deadline. This includes written work, studying, and other classroom projects that promote learning.

iii. Students are expected to be punctual and to attend all classes.

iv. Students can insure the safety of themselves and others by walking in an orderly manner. This will be the only acceptable means for students to move throughout the building.

v. Students are expected to adhere to all classroom rules as set forth by Faculty and administration.

c. Standards of Conduct

Generally, prohibited conduct for which a student is subject to discipline is defined as follows:

i. **Conduct which intentionally or recklessly threatens the health or safety** of any person on Faculty-owned or leased property, at a Faculty sanctioned function, at the permanent or temporary local residence of a Faculty student, Faculty members, employee or visitor.

ii. **Unauthorized entry** into or occupation of Faculty facilities which are locked, closed to student activities or otherwise restricted as to use.

iii. **Intentional disruption or obstruction** of teaching, research, administration, disciplinary procedures, other Faculty activities, or activities authorized to take place on Faculty property.

iv. **Unlawfully blocking or impeding normal pedestrian or vehicular traffic** on or adjacent to Faculty property.
v. Violation of Faculty policies or regulations including policies concerning the use of Faculty facilities.

vi. Alteration, fabrication, or misuse of, or obtaining unauthorized access to Faculty identification cards, other documents, or computer files or systems.

vii. Any violation of local law, if such directly affects the Faculty's pursuit of its proper educational purposes and only to the extent that such violations are not covered by other Standards of Conduct and only where a specific provision of a statute or ordinance is charged in the complaint.

viii. Failure to comply with directions of Faculty officials including failure to give identity in situations concerning alleged violations.

9. Faculty Records

Faculty of Biotechnology has specific guidelines concerning the release of information and the student's privileges to inspect and review their own educational records. Faculty of Biotechnology maintains various student records, to document academic progress as well as to record interactions with Faculty staff, Faculty, and officials. To ensure continuous maintenance of student records, an additional set of the records is stored in a secure location, in a fireproof cabinet, as well as special security measures to protect and back up computer-generated and stored records.

a. Confidentiality of records:
Students' records are either considered as directory or confidential information.

i. Directory Information
Certain information concerning students is considered to be open to the public upon inquiry. This public information is called directory information and includes: name, local address and telephone number, permanent address, e-mail address, date and place of birth, photograph, enrollment status, dates of attendance at Faculty of Biotechnology, awards and academic honors, degrees and dates awarded, most recent previous educational institution attended, participation in officially recognized activities and athletic teams.

Directory information as defined above will be released upon inquiry, unless the student has requested that this information not be released. The student's request to have directory information withheld must be submitted to the Registrar's Office. The Registrar's Office will notify other appropriate Faculty offices by placing a notation within the Student Information System.

ii. Confidential Information and the right of access to student records, including students’ access to their own records

With the exception of the information noted above, students' records are generally considered to be confidential. The following policies govern access to confidential student records.
i. Each type of student record is the responsibility of the Faculty member or employee, and only the Dean has the authority to release or update the record.

ii. The responsible Faculty member or employee may release records to Faculty employee who have a legitimate need for the information in order to carry out their responsibilities. They should act in the student’s educational interest within the limitations of their “need to know.”

iii. All student records are reviewed and updated periodically. Information concerning the frequency of review and expurgation of specific records is available in the Registrar's Office.

iv. A student may waive the right to review a specific record by submitting in writing a statement to this effect to the official responsible for that record.

v. Faculty personnel who have access to student educational records in the course of carrying out their Faculty responsibilities shall not be permitted to release the record to persons outside Faculty of Biotechnology, unless authorized in writing by the student or the Dean or as required by a court order. Only the official responsible for the records has the authority to release them.

vi. All personal educational information about a student released to a third party will be transferred on condition that no one else shall have access to it except with the student's consent. A record is maintained showing who has had access to student records, and this record is open to inspection by the student.

b. When records may be withheld
The appropriate Faculty official may request that the student’s record not be released in the case the student has a delinquency in an account with the Faculty. The effect of this action is that transcripts are not released, and enrollment is withheld. In order for the action to be rescinded, the Registrar’s Office must receive authorization from the official who originally requested the action, indicating that the student has met the obligation. To contest the withholding of a record, a student must attempt to settle the dispute with the official who requested that the record be withheld.

c. Complaints
A student who believes Faculty of Biotechnology has not complied with the regulations may send a written complaint to the Dean.

d. Retention and disposal of record
Records retention and disposal is the process by which Faculty of Biotechnology decides whether records should be destroyed or transferred to the archive. All Faculty records fall into three categories:

a) Current (when data may be added to it);

b) Semi-current (when it has been closed but is used as a reference tool for administrative purposes); and

c) Archived (when it has been selected for permanent retention in Faculty of Biotechnology archive).

All student files held within the Faculty fall within the category of ‘current’ or ‘semi-current’ records. While a student remains at Faculty of Biotechnology, their file is
considered to be ‘current’. Once departed (either through graduation or withdrawal), their file becomes ‘semi-current’.

e. Pruning Procedures
In accordance with the above procedures, at the end of each academic year in which individual student files are held as ‘semi-current’, they are pruned and stored for a further five academic years.

10. Computer Use Policy
The Faculty provides an opportunity for students and other members of the Faculty community to enhance educational experiences and expand academic knowledge by making available access to computer facilities and resources, including the Internet, e-mail, and the World Wide Web. Thus, technology places a significant amount of power and information in the hands of its users that carries an equal amount of responsibility. Therefore, the following policy has been adopted to define responsible and ethical behavior relating to use of computing facilities and resources at the Faculty. The policy is applicable to all students. As a user of these resources, all faculty, staff and students are responsible for reading and understanding the policy. As a part of the physical and social learning infrastructure, the Faculty acquires, develops, and maintains a computing infrastructure consisting of computers, networks, and a variety of related support systems.

These computing resources are to be utilized for Faculty-related purposes, including but not limited to, the following:

a) Direct and indirect support of the Faculty’s service missions.
b) Support of student and campus life activities.
c) Support of the free exchange of ideas among members of the Faculty community, as well as the Faculty community and the local, national, and world communities.

All information technology resources are the property of the Faculty of Biotechnology. Except for personally owned computers, the Faculty owns, or has responsibility for, all of the computers and internal computer networks used on campus. Users of Faculty computing resources and facilities do not own the systems or the accounts they use when accessing Faculty computers or systems. All existing Faculty regulations and policies apply, including not only those regulations that are specific to computers and networks but also those that may apply generally to personal conduct. Rules prohibiting misuse, theft, or vandalism apply to all software, data, and physical equipment, including Faculty-owned data as well as data stored by individuals on Faculty computing systems.

User Responsibilities - "Do's and Don'ts"

- Do use the network according to the Faculty's code of conduct.
- Do use the network only for legal activity.
- Do use appropriate language. Do not swear, use vulgarities, or any other inappropriate language.
- Do not cut and paste information from the Internet as your own work.
- Do not access or change in any way another person’s work.
- Do not gain or attempt to gain unauthorized access to resources or information.
- Do not log into the computer without permission.
- Do not damage or mistreat computer equipment under any circumstances.
- Do not copy, download or install any software or programs to Faculty computers.
- Do not remove, relocate or modify hardware or software.
- Do not download or stream audio/video files. This limits everyone’s use of our computer network.
- Do not connect to the Faculty of Biotechnology network any personal computer or other equipment without permission from the technology staff. This includes (but is not limited to) laptop computers, gaming devices, storage devices, telephones, PDAs, digital cameras, and MP3 players. The Faculty of Biotechnology Administration and/or Technology staff reserves the right to inspect the contents of this equipment at any time.

a. **Appropriate use guidelines**
The rights of academic freedom and freedom of expression apply to the use of Faculty computing resources. So too, however, do the responsibilities and limitations that are associated with those rights. The use of Faculty computing resources, like the use of any other Faculty-provided resource and like any other Faculty-related activity, is subject to the normal requirements of legal and ethical behavior. Student access to and use of electronic tools such as e-mail and the Internet is intended for Faculty business and educationally related purposes. Limited and reasonable use of these tools for occasional student personal purposes is permitted as long as the use does not result in additional cost or loss of time or resources for intended business purposes.

b. **Inappropriate uses**
Students must use good judgment in the use of all computing resources, including but not limited to Internet access and e-mail use. E-mail messages must be appropriate in type, tone and content. Employee and student use of e-mail and the Internet must be able to withstand public scrutiny without embarrassment to the Faculty. Computing and telecommunications may be used only for legal purposes and may not be used for any purpose which is illegal, unethical, dishonest, damaging to the reputation of the Faculty or likely to subject the Faculty to liability. Inappropriate uses of computing resources at the Faculty include, but are not limited to, the following:

1. Any activity that would negatively affect the use of the network by others
2. Illegal copying, sharing or transmission of copyrighted software or other material licensed or otherwise protected by copyright.
3. Any activity that would cause another user to lose control or usage of a computer or account
4. Commercial or profit-making activities unrelated to the Faculty’s mission;
5. Creating, transmitting, executing, or storing malicious, threatening, harassing, obscene, or abusive messages, images, programs, or materials.
6. Violating Faculty security, damaging Faculty systems, or using computing privileges to gain unauthorized access to any Faculty computer system and/or any computer system on the Internet
7. Any activity that violates Faculty laws, policies or regulations
8. Promoting political or religious positions or activities
9. Accessing or using another person’s account for any reason.
10. Removing or defacing hardware, software, manuals, etc. from computer labs.

c. **Disciplinary Action**
Engaging in any activity that violates the Computer Use Policy may result in the immediate suspension of an individual's computer access privileges, other disciplinary and/or legal action. The imposition of any sanction imposed under this policy is subject to review pursuant to applicable provisions of the Faculty, Staff and Student Handbooks.

11. **Academic Progress Policies**
The Academic Progress Policy set out below balances the need to assist those students who are not performing well academically with the Faculty’s necessity to maintain the high quality of its qualifications.
Students attending Faculty of Biotechnology are expected to perform at a satisfactory academic level. The Policy sets out a transparent and equitable process for students with academic performance problems. Students who are not achieving satisfactorily will receive specifically targeted advice and assistance at an early stage.
The Academic Progress Policy is intended to provide a benchmark for students of minimal academic achievement, in tandem with a constructive system of support to help students to achieve that benchmark.
The Policy’s staged processes gives students who are having difficulties the opportunity to be involved in the identification of problems restricting achievement and in planning their future study carefully with an Adviser of Studies.

a. **Minimum Grade Point Average**
Students shall automatically receive the university award, upon completion of the requisite number of credits with CGPA equivalent to C- or above, at the end of the semester during which the total was achieved. Students who have a CGPA of less than C- will not be granted their degrees until they clear their CGPA deficiency.

b. **Criteria for add, drop, leave of absence, withdrawal, and re-admission**
   i. **Course Add or Drop Policy**
   Students may add or drop courses without penalty during the add/drop period each term. Students who drop classes, after the add/drop period, are entitled to a tuition refund as stated below.

   ii. **Tuition Refund Policy**:
   Faculty of Biotechnology is based on NO REFUND policy. The students are not eligible for Tuition refund under any circumstances.

   iii. **Leave of Absence Policy**
   Occasionally, students may have to take a semester or two off because of circumstances beyond their control. Leave of absence policy is designed to assist such students. Students who have an approved leave of absence for a semester or a
year may register for the semester in which they plan to return without applying for readmission.

A leave of absence maintains the student status while he is away from Faculty of Biotechnology for up to two semesters. Students who wish to take a leave of absence from an academic program must do so through the Dean's office or department head by completing the leave of absence form. All requests for Leave of Absence require Dean’s approval.

If the Leave of Absence process is completed satisfactorily and approved by the Dean, and the student has cleared all financial obligations to Faculty of Biotechnology, the effective date of Leave of Absence will be noted on the student's permanent academic record. The effective date is the basis for calculating billing or refunds by the Faculty.

iv. Course and Faculty Withdrawal Policy

Students who wish to withdraw from all classes for the term or withdraw permanently from Faculty of Biotechnology must notify the Dean's Office in writing and indicate the last date of the student's class attendance. If notification is postmarked by the last day of the add/drop period, the grade posted will be W. A student who fails to attend classes or leaves Faculty of Biotechnology for any reason must formally withdraw through the Dean’s Office in writing and indicate the last date of class attendance. Failure to complete the withdrawal process will result in a failing grade for the course(s). Students who withdraw after the last date to withdraw will have an F grade.

v. Readmission Policy

When a student is readmitted to Faculty of Biotechnology after a period of absence, he or she must fulfill the requirements for the class with which he or she will graduate. However, any courses previously taken to satisfy the Program requirements will be counted. A student should contact the Registrar's Office and his or her faculty advisor to determine degree requirements applicable. A freshman student returning after a period that is less than three semesters will follow the academic policy of the Faculty Catalog of the year of his/her original admission. If a freshman returns after more than three terms of leave, he/she will follow the academic policy existing at the time of readmission. A student who has been away for more than a year must submit a valid medical certificate.

c. Probation, Academic Suspension, and Dismissal Policy

i. Probation

Once a student's cumulative GPA falls below C-, he/she is placed under academic probation. Due to this constraint, students who are under probation are allowed to repeat courses with a grade of C, C- and F during this period under the supervision of an academic advisor in order to improve their cumulative GPA. The higher grade of repeated course is used in the GPA calculation. Senior students are allowed to repeat failed and lower grade courses as well until they fulfill the graduation requirements.

ii. Academic Dismissal

Students who do not pull the cumulative GPA to 1.67 after 9 semesters are academically dismissed from Faculty of Biotechnology. Any appeals to academic
d. Grading and Assessment Policy

1. Institutional guidance on grading
a) Assessment strategy
The assessment measures the outcome of students' learning in terms of knowledge acquired, understanding developed, and skills gained. The assessment strategies encompass diagnostic assessment (to provide an indicator of the student's aptitude and preparedness for a program of study and identifies possible learning problems), summative assessment (to provide a measure of achievement or failure made in respect of the student's performance in relation to the intended learning outcomes of the program of study) and formative assessment (to provide students with feedback on progress and informs development. However, it does not contribute to the overall assessment). Coursework is commented upon critically and constructively with written and verbal feedback accompanying the returned work in order to allow the students to improve their understanding and intellectual development.

b) Learning Assessment and Grading Policy
i. Written examination (which may contain short-answer questions, essay-type questions and/or calculations).
ii. Assessed coursework (including problem solving, essay writing, multiple choice tests, essays and/or laboratory reports and research project reports, poster and oral presentation).

The assessment method changes as the student gains confidence and competence in higher levels. Thus, at level 1, 2 the students will be extensively assessed through written examination while there is a greater weighing on individual planning and reporting of project work at level 3 and 4 to assess the acquisition and application of student's knowledge.

Deadlines for assessed coursework are determined by the internal instructor for each module and distributed to the students within the first two weeks of each semester. Assessed coursework is submitted at allotted times with coversheets with receipt slips, which are signed by a responsible person.

Faculty of Biotechnology grading scale is as follows:
The corresponding Grade Point Average (GPA) for each letter grade in a module is as follows:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>GPA</th>
<th>% from the total marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>12/3=4</td>
<td>≥ 90</td>
</tr>
<tr>
<td>A-</td>
<td>11/3</td>
<td>&lt; 90 &amp; ≥ 88</td>
</tr>
<tr>
<td>B+</td>
<td>10/3</td>
<td>&lt;88 &amp; ≥ 85</td>
</tr>
<tr>
<td>B</td>
<td>9/3=3</td>
<td>&lt;85 &amp; ≥ 80</td>
</tr>
<tr>
<td>B-</td>
<td>8/3</td>
<td>&lt;80 &amp; ≥ 75</td>
</tr>
<tr>
<td>Grade</td>
<td>Score Range</td>
<td>Grade Code</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
<td>------------</td>
</tr>
<tr>
<td>C+</td>
<td>7/3</td>
<td>&lt;75 &amp; ≥ 70</td>
</tr>
<tr>
<td>C</td>
<td>6/3=2</td>
<td>&lt;70 &amp; ≥ 65</td>
</tr>
<tr>
<td>C-</td>
<td>5/3</td>
<td>&lt;65 &amp; ≥ 60</td>
</tr>
<tr>
<td>D+</td>
<td>4/3</td>
<td>&lt;60 &amp; ≥ 55</td>
</tr>
<tr>
<td>D</td>
<td>3/3=1</td>
<td>&lt;55 &amp; ≥ 50</td>
</tr>
<tr>
<td>Fail</td>
<td>0</td>
<td>&lt; 50</td>
</tr>
</tbody>
</table>

Grades that are not included in the grade point average are as follows:

- **P**: Pass
- **I**: Incomplete
- **W**: Withdrawal

Fail Grad may appear in three cases:

- **F(1)**: Deprived
- **F(2)**: Absent in Final
- **F(3)**: Achieved less than 25% in the final exam.
- **F**: Achieved less than 50% of the total marks.

Recommended weighted criteria to assess a student's course performance is as follows:

<table>
<thead>
<tr>
<th>Weight</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 %</td>
<td>Course work (Quizzes + Assignments + Lab. Work + Oral)</td>
</tr>
<tr>
<td>20 %</td>
<td>Midterm exam</td>
</tr>
<tr>
<td>40 %</td>
<td>Final exam</td>
</tr>
</tbody>
</table>

The calendar of assessment

There are 3 main periods of assessment and progression during the academic year:

**a) For Fall Semester:**
- At the middle of the Fall Semester.
- At the end of the Fall Semester.

**b) For Spring Semester:**
- At the middle of the Spring Semester.
- At the end of the Spring Semester.

**c) For Summer Semester:**
- At the end of the Summer Semester.

The period of final assessment includes a deadline for submitting all work to be assessed as well as concluding all the examinations.

**General Rules and Regulations**

The pass percentage for each course is 60%. Students who get a minimum of 55% in a single course are to be condoned by a maximum of 5% by the Faculty Dean.

- The academic load is the number of registered credit hours per student each semester.
- Credits acquired by the student are based on the credits of the passed courses from the academic load registered.
Repeated courses will be counted once toward the calculation of accumulated credit hours. The best achieved GPA will be used for calculating GPA.

The cumulative GPA calculation starts from the first semester for each student and is updated each semester till his/her graduation.

The semester GPA of the student is the weighted average of the grade points acquired in the courses passed in that specific semester. It is calculated as follows:

Semester GPA = Total credit hours earned (enrolled) during a given semester, divided by the total GP (grade or quality points) earned during that semester.

Cumulative GPA = Total credit hours earned (enrolled in) at Faculty of Biotechnology for all semesters combined, divided by the total GP (grade or quality points) earned (enrolled in) at Faculty of Biotechnology.

*Excluding pass-fail courses credit and transferred courses from Universities other than Faculty of Biotechnology.

Levels of the Cumulative GPA are as follows:

<table>
<thead>
<tr>
<th>Level</th>
<th>Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>A, A- and B+</td>
</tr>
<tr>
<td>Very Good</td>
<td>B and B-</td>
</tr>
<tr>
<td>Good</td>
<td>C+ and C</td>
</tr>
<tr>
<td>Satisfactory</td>
<td>C-</td>
</tr>
</tbody>
</table>

Graduation
Students shall automatically receive the award of the Faculty for which they are registered and qualify for upon completion of the requisite number of credits with a GPA equivalent to C- or above at the end of the semester during which the total was achieved.

Failure in Courses
Students must meet the deadline for submission of all coursework components and according to the requirements of the Faculty and course teaching staff.

The student will be assigned "F" grade in the following cases:

- Students who fail to attend the final exam.
- Students who fail to achieve 30% of the marks in the final exam.
- Students who fail to achieve 60% of the total marks.

Students who fail to attend the midterm exam will not be deprived from completing the course. However they will lose all the marks which are equivalent to 20% of final grade unless the Faculty Dean considers the extenuating circumstances that arise and decides that the midterm grades are to be added to the grades of the final exams.

Class Attendance and Absence Policy
Faculty of Biotechnology students are expected to attend all class sessions for which they are registered; they are also responsible for the material covered in each class session and completion of assigned work by the announced due dates. Instructors are responsible to clearly communicate to the students via the syllabus their policies regarding class attendance and make-up work.
Certain situations are recognized as Faculty-excused absences from class, including:

- Participation in an athletic activity approved by the Dean
- Participation in a scheduled curricular or co-curricular activity approved by the Dean.

Instructors should excuse absences of the above nature if the student follows the guidelines listed below. If possible, the instructor should allow the student to make up the class work or complete an alternative assignment. A student who anticipates absences of this nature:

- must provide his or her instructors with a list of dates of expected absences by the end of the first week of class and discuss with each instructor the impact of such absences. If the instructor deems that the absences will interfere with the student's ability to successfully complete the objectives of the course, the student must seek to reduce the absences or withdraw from the course.

- should arrange in advance of the absence for make-up of any work that will be missed.

Absences due to illness or emergency

- In the event of a missed class, the student should notify the professors as soon as possible and discuss the options for obtaining missed material. In the event of an absence due to illness or emergency extending longer than two days, students are required to contact the Faculty of Biotechnology by phone so that Faculty of Biotechnology may notify the professors.

e. Faculty Guidelines and Standards

a) General Guidelines for Writing Examinations

i. Examinations are based on the curriculum guide and the recommended resource materials.

ii. Examinations are 3 hours (for final exams) and 1.5 hours (for midterm exams). Students should be prepared to use the full time allotment to complete the examination and to check their work.

iii. Students should look over the entire examination before beginning to answer any of the questions. This will give them an idea of the length of the examination and the kinds of questions to expect.

b) Common Test Item Terminology

i. **Analyze**: Divide a concept, an event, a set of data, or a text into parts in order to explain the concept, event, data, or text.

ii. **Compare**: Identify similarities and differences among two or more people, places, or things. Example: “When comparing plant and animal cells, the similarities and differences are . . . .”

iii. **Contrast**: Identify dissimilarities or differences among two or more people, places or things. Example: “Contrast the way three different characters react to injustice.”

iv. **Critique**: Make judgments about the positive or negative aspects of something. Critical discussion may approve or disapprove or both. Example: “Which of the following statements most effectively critiques the adoption of recombinant DNA technology in agriculture?”
v. **Define:** Precisely state the meaning of a word, phrase, or concept. Determine the extent or boundary of something. Example: “The term ‘osmosis’ is best defined as . . . .”

vi. **Describe:** Provide a picture or idea of something through the use of spoken or written words. Example: “Which of the following statements best describes how the addition of a catalyst affects the rate of reaction at equilibrium?”

vii. **Evaluate:** By discussing advantages and limitations, judge the worth or value of something. Example: “Which of the following statements best evaluates the merits of the CANDU reactor?” In math, the word “evaluate” means “find the numerical value of.”

viii. **Explain:** Make clear or understandable, or give reasons for something. Example: “Explain why you think joy is an essential emotion for people to experience.”

ix. **Illustrate:** Make clear or understandable by using examples. Example: “Which of the following statements best illustrates the concept of natural selection?”

x. **Interpret:** To judge (e.g., persons, events) in a personal way or present your thinking about something. Example: “Which of the following statements best interprets the graph showing the results of the experiment?”

xi. **Justify:** Show good reason, or present evidence in support of a position. Example: “Justify the actions of the protagonist.”

xii. **Prove:** Show something to be true or genuine by providing evidence or logical arguments, or in mathematics to verify the accuracy of something such as a calculation.

xiii. **Summarize:** State or express concisely, or briefly provide the main points. Example: “Which of the following statements best summarizes Hess’s Law?”

xiv. **Support or Refute:** Support means to argue in favour of something; refute means to argue against something or to prove an assertion to be in error. Examples such as illustrations, quotations, and statistics help support or refute. Example: “Canadians are a dull people. Support or refute this statement.”

c) **Calculator Use Policy**

Calculators may be used in the following examinations: Chemistry, Physics and Mathematics.

Only silent hand-held calculators designed for mathematical computations such as logarithmic, trigonometric, and graphing functions are permissible. Computers, calculators with a QWERTY keyboard, and electronic writing pads will not be allowed. Calculators that have built-in notes (definitions or explanations in alpha notation) that cannot be cleared are not permitted. Students are not allowed to bring any external support devices, such as manuals, printed or electronic cards, printers, memory expansion chips, or external keyboards to an examination. In preparation for calculator failure, students may bring extra calculators and batteries into the exam room. Communication between calculators is prohibited and calculators must not have the ability to either transmit or receive electronic signals.
Before an exam begins, calculators must be removed from their cases and placed on the students’ desks for an inspection by a mathematics or science teacher. Students must clear all programmable calculators, both graphing and scientific, of all information that is stored in memory. Cases must be placed on the floor and left there for the duration of the exam.

d) Dictionary Use Policy
No dictionaries, electronic dictionaries, translation dictionaries, or any other notes or reference materials are allowed.

e) Disturbing Content on Exam Responses
Although examinations are treated in confidence, there may be cases where a written response contains offensive and inappropriate language or suggests that the student is experiencing emotional difficulties, poses a threat to self or others, or is involved in a criminal activity. In these cases, the Department may refer the student’s response to the Dean for further action.

f) Special Provisions Policy
Special provisions may be made for students with sensory disabilities, physical disabilities, acute or chronic illness, and learning disabilities. The special provisions must not compromise the integrity of the formally stated foundational and learning objectives. Requests for special provisions must be based on assessment of need by qualified personnel. The special provisions that may be made include:
• extended writing time.
• Use of a separate room for writing.
• Specially printed examination paper (e.g., large print, colored paper).
• Use of a word processor (Students are not permitted use of program utilities such as spell check, thesaurus, dictionary, or grammar check.)

f. Procedures and regulations for the late submission of coursework

INTRODUCTION
The greater use of coursework as a form of learning and assessment requires a policy on the late submission of such work. A policy that enforces submission deadlines is desirable, in the sense that it develops the important skill of planning work and completing it to a deadline. It is necessary on grounds of equity, in that it is unfair for students to gain advantage by choosing to submit their work late. The student mobility within the Faculty arising from the implementation of modularization requires that this policy be uniform across the Faculty.

POLICY
a. The due date for each item of coursework must be clearly indicated to students.

b. Coursework must be delivered by hand to the Faculty Office (or other location designated by the Faculty) or submitted electronically via an approved system. Coursework may of course be submitted in advance of the due date. Coursework should not be submitted directly to individual members staff,
placed directly in staff post-boxes, or delivered to or deposited in any location other than that designated by the Faculty.

c. Submission dates may be extended in exceptional circumstances; students must apply for an extension in writing to the Faculty, using the standard Faculty pro-forma and stating the reasons for seeking the extension.

d. Where coursework is submitted late due to unanticipated exceptional or extenuating circumstances, students must present an explanation to the Faculty, using the standard Faculty pro-forma. The Faculty may, at their discretion, retrospectively award an extension in such cases.

**g. Examinations Policy**

This policy includes procedures and regulations for all forms of examination.

1. Academic Advising Policy

   - the responsibility for ensuring the availability of academic advisement rests with the Faculty dean
   - all students shall confer with an academic adviser on a regular basis.
   - all first-time freshmen must receive academic advisement prior to registration for their first semester.

2. Policies

   i. All scheduled final examinations are held at the end of the semester during the Faculty's official final examination period. Comprehensive final examinations are not required for each course, but are given at the option of the department or instructor. The weekend preceding the examination days shall never be used for examination purposes of any kind.

   ii. Instructors are expected to return all work assigned no later than the last regular day of classes in courses for which there is a final examination. In cases when this is not possible, an answer key, solution sets or equivalent feedback should be provided unless the final examination will not cover material in work that has not been returned.

   iii. No other coursework, including laboratory work, will be due during the final examination period unless it is assigned in advance and in lieu of the course's final examination. Regardless of whether there is a final examination in the course, no classes other than review sessions shall be held during the final examination period. Review sessions should be scheduled for optimal attendance, and a serious effort should be made to accommodate students who cannot attend. In appreciation of the time required to prepare for final examinations, no other examinations, portfolio reviews, critiques or juries shall be scheduled for the last class day of a course with a final examination.

   iv. Instructors shall never exert or submit to pressures to move an examination so that people can leave earlier nor pressure students to take an examination on a weekend preceding examinations.

   v. Students are expected to present themselves at the place assigned at the start of the examination; late arrival will reduce the total time a student has to complete the examination, unless instructor’s course policy indicates otherwise. Instructors reserve the right to require attendance within a specific
time period. Students who miss an examination with a reasonable excuse and wish to petition for a make-up final examination should check with the instructor for the Dean approval. Instructors are encouraged to include late arrival policy and make-up exam policy in the course syllabus.

vi. Any student shall be permitted to review his or her corrected, graded final examination in the presence of an instructor or a Teaching Assistant. Any controversy arising from this review shall be dealt with in accordance with the Faculty procedure for the appeal of grades and academic actions. A final examination that is not returned to a student will be kept available for a year for review. In the event that the instructor or Teaching Assistant is not available for the review, the responsibility shall rest with the department head of the instructor offering the course or his or her designee. Since instructors are expected to return all work assigned before the final examinations, they are not responsible for retaining unclaimed coursework.

vii. Concerns related to final examination, complaints about violations of the final examination policy or alterations of the final examination schedule should be directed to the department head of the instructor offering the course or to the Dean.

h. Student Academic Dishonesty Policy
   This policy includes plagiarism and cheating, and is accompanied by regulations and full operational procedures.

Academic dishonesty includes cheating, knowingly providing false information, plagiarizing, and any other form of academic misrepresentation. Should incidents of academic dishonesty occur, the following procedures will be followed:

1. A Faculty members suspecting dishonesty will confer with the student so accused, within a reasonable time after the alleged offense has been discovered.
   a) If the student denies responsibility and the Faculty members is convinced that the student is not responsible, the matter is dropped.
   b) If the Faculty members is convinced that the apparently unethical behavior was unintentional, the Faculty members will help the student to understand what was done wrong and how to avoid doing so in the future. Unintentional violations should be reported by the Faculty members.
   c) If the student admits the act of dishonesty, the penalty will be an “F” on that assignment/test, a final grade of “F” for the course, or other appropriate penalty, as determined by the Faculty members depending on the severity of the infraction and the significance of the assignment. When an “F” is levied on an individual assignment/test, the Faculty members may require the student to complete additional work in order to continue in the course. Violations should be reported by the Faculty members. If the Faculty members believes that the dishonesty is severe enough to warrant suspension or dismissal from the Faculty, he or she should refer the case to the Deputy Dean for students affairs who might report to the Dean.
   d) If the student wishes to appeal the severity of the grade assigned by the Faculty members, the student will follow the procedures stated in the Faculty academic policy for appeal of grades.
e) If the student denies responsibility and the Faculty members is not convinced that the student is not responsible, the case is referred, with supporting documentation, to the Dean for action. The Faculty members will delay assigning a grade for the course or the assignment until the Dean makes a determination of responsibility or no responsibility and takes appropriate Faculty disciplinary action.

f) A student suspected of academic dishonesty may not withdraw from the course until the charges have been resolved. A student who receives an “F” in the course for academic dishonesty cannot obtain a “W” from that course.

2. The Deputy Dean for students affairs will be convened to hear cases of academic dishonesty when any of the following occurs:
   a) The student denies responsibility and the Faculty members is not convinced that the student is not responsible.
   b) The Faculty members is not convinced that the admitted violation was unintentional.
   c) The Faculty members believes that the violation is severe enough to warrant suspension or dismissal from the Faculty.
   d) The student has been involved in a previously documented incident of academic dishonesty.

The Deputy Dean for students affairs will recommend to the Dean the action to be taken.

3. Whenever academic dishonesty occurs, a Faculty members will provide the head of the department, the Deputy Dean for students affairs and the student with a written report of the violation, any penalty imposed and the counseling provided by the Faculty members. In order to insure that a pattern of misconduct is not established, the Deputy Dean for students affairs will notify the Dean who will place a copy of the Faculty member’s statement in the academic dishonesty file. This statement will be destroyed no later than three months after the student’s graduation. Decisions of the Dean will be placed in the student’s personnel file. Materials placed in the academic dishonesty file may not be released to outside agencies.

Contents of the student’s personnel file may be released only as stipulated in the Faculty Records Policy.

4. If a student witnesses an act of academic dishonesty; he/she should report it to the Faculty members of the course involved. That Faculty members will handle the matter according to the steps as outlined above.

5. For the purpose of this policy, plagiarism shall be considered to be deliberate representation of someone else’s words or ideas as one’s own or the deliberate arrangement of someone else’s material(s) as one’s own.

Any one of the following constitutes plagiarism:
1. Direct quotation without appropriate punctuation and citation of source;
2. Paraphrase of expression or thought without proper attribution;
3. Dependence upon a source for a plan, organization or argument without appropriate citation.
i. **Student Academic Appeals**

The Faculty provides students an opportunity to appeal decisions or policies affecting their academic standing. Avenues of appeal are as follows:

1. **Grade Appeals**
   A student who wishes to appeal the final grade in a course should first seek a resolution of the issue informally with the Faculty members. If an informal resolution cannot be reached, the student may appeal the grade formally, beginning with the Faculty members and, if necessary, proceeding, at the request of the student or of the Faculty members, through the levels of appeal (Faculty members, Department chair, Deputy Dean for Students affairs and then the Dean of the Faculty. At each stage of the appeal, the student must provide a written justification for the appeal and an explanation of the desired resolution; reviewers at any stage of the appeal may request appropriate additional documentation from any party to the appeal.

2. **Student Fee Appeal**: Deals with all appeals for refund/waiver of tuition and fees, late fees, and other charges on the student account when the student has dropped or completely withdrawn after the deadline for a refund. Fee Appeal Forms are available in the Admission office. Appeals submitted without supporting documentation will automatically be denied. Student may re-appeal if they can provide the necessary documentation to support their appeal. Appeals are approved only if extenuating circumstances exist beyond the student’s control that justifies an exception to the refund/cancellation policy. It is the student’s responsibility to be aware of Faculty policy.

3. **Special Admissions Appeal**: Deals with all appeals relating to student undergraduate admission. A student may file an appeal for special consideration if unusual or extenuating circumstances prevented him/her from meeting the admission standards, meeting the application deadline, from meeting the requirements of provisional status and for continuing provisional status. Students should provide any documentation of the situation. Forms should be picked up and returned to the Admission office.

4. **Appeal to drop a class after the deadline**: If students need to drop a single class in a current semester after the published deadline, but before the end of the semester, they must appeal to the Deputy Dean for Students Affairs. The student must make an appeal in writing and provide documentation of extenuating circumstances that would justify an exemption from the deadline policy. If the Deputy Dean gives permission, the student will complete the “Appeal to Drop After the Deadline” form and can then proceed to request approval and signature from the Dean.

5. **Appeal to completely withdraw after the deadline**: If a student needs to completely withdraw (drop all courses) after the published deadline, but before the finals week of the current semester, they must appeal through the Deputy Dean for Students Affairs. The student must provide a thorough, written explanation regarding their circumstances, as well as, documentation of extenuating circumstances beyond their control that prevented them from
both completion of their courses and from withdrawing within the confines of the deadline dates.

6. Academic Misconduct Appeals
   a) Definition of Academic Misconduct:
      i. Any academic dishonesty in connection with the taking of, or in contemplation of the taking of any examination. (For the purposes of this policy, any student is academically dishonest who knowingly discovers or attempts to discover the contents of an examination before the contents are revealed by the instructor; obtains, uses, attempts to obtain or use any material or device dishonestly.
      ii. Supplies or attempts to supply to any other person any material or device dishonestly; or during the course of an examination obtains or attempts to obtain unauthorized information from another student or from another student’s test materials.)
      iii. Any misrepresentation of academic work by a student as the product of their own study and efforts.
      iv. The unauthorized possession, taking, or copying of solutions manuals or computerized solutions for homework or research problems assigned by a professor and/or instructor.
   b) Notification of Charge of Academic Misconduct:
      In the event an instructor determines that a student has engaged in academic misconduct, the instructor will meet with the student and inform him/her of the action or sanction the instructor deems appropriate.
   c) Appeals Process:
      i. Informal Procedure: The student is advised by the instructor involved of the academic misconduct and what action or sanction the instructor is taking because of the student’s academic misconduct. Within five business days of having been advised of the finding of academic misconduct, and of the action or sanction by the instructor, a student may informally attempt to resolve the matter with the instructor. If the student is unable to informally resolve the matter with the instructor, then within five business days of the meeting with the instructor he/she may attempt to resolve the matter with the chair of the department. If the student is unable to informally resolve the matter with the department chair, the student must notify the instructor, in writing, within five business days of the meeting with the department chair that he/she wishes to exercise the right to a formal appeal pursuant to the procedures set forth below.
      ii. Formal Procedure: Within five business days of being notified by the student of an intent to invoke the formal procedure, the instructor must advise the student, in writing, of the academic misconduct involved and the action or sanctions taken.
         • The student must then submit a written appeal to the instructor within five business days of receipt of the instructor’s notification. The instructor will submit a written decision to the student and to the department chair within five business days of receipt of the appeal.
• If not satisfied with the action of the instructor, the student may submit a written appeal to the department chair within five business days of receipt of the instructor’s decision. The department chair will submit a written decision to the student with copies to the instructor within five business days of receipt of the appeal.

• If not satisfied with the action of the department chair, the student may, within five business days, submit a written appeal to the deputy dean for students affairs. The deputy dean for students affairs will submit a written decision to the student and to the department chair within five business days of receipt of the appeal.

• If not satisfied with the action of the deputy dean for students affairs, the student may, within five business days, appeal to the Dean.

d) Penalties for Academic Misconduct

Any student deemed guilty of an act of academic misconduct may be subjected to one or more of the following penalties:

i. The student’s grade in the course or on the examination or assignment affected by the misconduct may be reduced to an extent, including reduction to failure.

ii. The student may be placed on probation or suspended from the Faculty for a specific period of time.

iii. The student may be expelled from the Faculty.

7. Campus Activities

This policy covers the supervisory role of the Faculty over student activities and student life.

1. Only approved student organizations may conduct student activities on or off campus. All Faculty activities conducted by an officially recognized student organization and must be approved by the Deputy Dean for Student Affairs. Initial scheduling and planning should begin early enough to have administrative approval five days prior to the event. These events should be cleared and entered on the Faculty calendar before any arrangements are made for food, bands, meeting facilities, etc.

2. The Faculty holds the officers and Faculty Advisor of organizations responsible for the planning, scheduling, and over-all conduct of the activities of their organizations. The officers and the advisors of the organizations sponsoring the activity also have the primary responsibility of seeing that these activities are in accord with the Faculty policy regulations.

3. Faculty groups are encouraged to hold their activities on campus. When an on or off campus facility is used by an organization, the organization is expected to observe to the fullest extent the rules and regulations governing the establishment. The Faculty, however, is not responsible for actions of members of organizations or their guests at functions held off campus.

4. Organizations may use facilities such as buildings, grounds, etc., subject to the regulations of the Faculty. Requests for facilities not regularly designed for student activities must be made through the Deputy Dean for students affairs.
5. Faculty regulations governing students and visitors will be maintained at all approved social affairs.

Any student parade, serenade, demonstration, rally, and/or other meeting or gathering for any purpose conducted on the campus must be scheduled with the Deputy Dean for students affairs at least forty-eight hours in advance of the event. Names of the responsible leaders of the group must be submitted to the Faculty at the time of scheduling. The terms and conditions, including all audiovisual aids used to promote such assemblies and demonstrations, are determined by the Faculty. The use of any statements, signs, and/or pictures that are normally considered in poor taste are not permitted. Organizations which meet at regular times and places may, at the beginning of each semester, schedule such meetings with the designated official. Students assembling for meetings not authorized in accordance with these regulations are subject to disciplinary action which may result in dismissal from the Faculty. A student present at such
8- Standards of Student Conduct

Students of the Faculty are expected to comply with the laws of the policies, procedures and regulations of the Faculty, and accepted customs of civilized society in their conduct.

a. Student Disciplinary Policy

1. This Policy governs awards and punishments pertaining to Faculty of Biotechnology students unless otherwise provided.

2. Awards and punishments pertaining to students include the following:
   a) Awards: Citation, merit, grand merit and conferment of commendation certificate
   b) Punishments: Reprimand, demerit, probation, suspension and dismissal

3. A student will be awarded with a citation or a merit if he/she:
   a) Demonstrates outstanding performance of his/her duties or provides enthusiastic service to the community, rendering assistance which can be proven.
   b) Gets an “excellent” or “A” grade while hosting or participating in social body activities.
   c) Demonstrates outstanding performance while participating in inter-school activities or services on behalf of the Faculty.
   d) Demonstrates outstanding deeds other than those listed above.

4. A student will be awarded with a grand merit if he/she:
   a) Performs in an outstanding manner in various inter-Faculty activities or competitions on behalf of Faculty of Biotechnology, thus enhancing the Faculty's reputation.
   b) Performs in an extraordinary manner, making remarkable contributions while serving as student body leader.
   c) Performs a heroic act disregarding risks to serve or rescue others.
   d) Makes a remarkable contribution to Faculty of Biotechnology or general society.
   e) Performs in another remarkable way, not listed above.

5. A student will be awarded with a commendation certificate if he/she:
   a) Is graded A in overall conduct for the entire semester.
   b) Demonstrates remarkable performance and enhances Faculty of Biotechnology reputation while participating in a national or international competition on behalf of Faculty of Biotechnology.
   c) Demonstrates other extraordinary performance worthy of a commendation certificate.

6. A student will receive a reprimand or demerit on his/her record if he/she:
   a) Fails to submit certificate of selected classes within the specified time limit.
   b) Disturbs discipline while participating in an official assembly.
   c) Upsets public order and defies authority.
   d) Removes or covers Faculty of Biotechnology announcement or lawful posters or impedes posting without a permit.
e) Endangers public safety by unintentional fault, a misdemeanor.
f) Damages or embezzles the Faculty property, a misdemeanor.
g) Commits indecent act, a misdemeanor.
h) Allows another person to falsely use his/her identification, a misdemeanor.
i) Fails to assume responsibility while taking charge of the Faculty property, a misdemeanor.
j) Insults or assaults in bad faith faculty or classmates as proven, a misdemeanor.
k) Beats another or participates in a physical altercation, a misdemeanor.
l) Defies examination rules
m) Disrupts teaching or damages Faculty peacefulness
n) Obstructs faculty and staff from performing duties
o) Violates laws in network use or Copyright and thus spoils the Faculty's reputation
p) Commits other acts similar to those listed above.

7. A student will receive a grand demerit on his/her record or be put into probation if he/she
   a) Repeats an offense
   b) Tampers with, fakes or uses without permit others’ identification.
   c) Violates discipline outside Faculty, by defaming Faculty of Biotechnology as informed by the competent authorities concerned.
   d) Commits larceny, misappropriation or embezzlement
   e) Stores hazardous articles or unlawfully possesses banned articles inside Faculty.
   f) Cheats during an examination.
   g) Tampers with Faculty records or examination
   h) Unlawfully uses or possesses illegal drugs.
   i) Breaches law as proven by court or Faculty of Biotechnology after investigation
   j) Commits other offenses similar to those listed above.

8. A student shall be expelled if he/she:
   a) Accumulates three grand demerits after offsetting merits and demerits.
   b) Repeats an offense deserving a reprimand or commits a more serious penalty during the period of probation.

9. A student shall be expelled or dismissed from student accreditation if he/she:
   a) Commits a gross offense after a period of probation.
   b) Cheats in an examination
   c) Tampers examination results or Faculty records in a gross offense. Commits larceny, misappropriation or embezzlement in gross offense.
   d) Injures another person critically or damages Faculty security in a provable offense.
   e) Carries a lethal weapon or leads a mob on a rampage.
   f) Spreads rumors, leads a mob to disturb the peace, or sows seeds of unrest as the mob leader and defies authority.
   g) Breaches law as officially verified by court or the Faculty after investigation, in critical offense.
h) Commits other offense which warrants expelling or dismissal from student accreditation according to the Faculty Rules Governing Students and Academic Affairs.
i) Commits other offenses similar to those listed above.

10. Procedures for disciplinary affairs:
a) Where a student receives a citation, merit, reprimand or demerit, the Deputy Dean for students affairs will directly inform such student after verification. Where a student receives a grand merit, grand demerit or higher level merit or demerit, the Deputy Dean for students affairs will resolve the final decision before reporting to the Dean.
b) The student’s parents or guardian shall be informed immediately upon verification of a demerit or a higher level punishment; and shall be informed by making a remark on the conduct report at the end of a semester in case of awards or punishments in other categories.
c) Awards and punishments received by a student during Faculty period may offset each other but shall not be expunged from the records. A student who deserves expelling shall not be exempted from such punishment even if he/she has received awards previously.
d) A punishment of probation shall continue and shall not be expunged unless the Deputy Dean for students affairs resolves to expunge it.
e) A student shall receive an aggravated punishment if he/she willfully misrepresents papers or data during the process of being investigated for his/her offense by the Faculty and this is verified by the Deputy Dean for students affairs.
f) Other than what is set forth in this Policy, the Deputy Dean for students affairs may, as well, duly change the level of awards or punishment on grounds of the students’ age, Faculty year level, motivation, purposes, attitude, measures, behaviors and the consequence and propose to the Dean a final decision.
g) During normal procedure, all award and punishment cases will be closed after the cases are completed, but they may be reopened in the event that new proof or data which were previously unavailable are subsequently discovered.

b. Student Appeal Policy and Procedures
The Faculty provides students an opportunity to appeal decisions or policies affecting their academic standing. Avenues of appeal are as follows:

2. Grade Appeals
A student who wishes to appeal the final grade in a course should first seek a resolution of the issue informally with the Faculty members. If an informal resolution cannot be reached, the student may appeal the grade formally, beginning with the Faculty members and, if necessary, proceeding, at the request of the student or of the Faculty members, through the levels of appeal (Faculty members, Department head and then the Deputy Dean for Students Affairs then the Dean as a final level of the appeal. At each stage of the appeal, the student must provide a written justification for the appeal and an
3. **Student Fee Appeal**: Fee Appeal Forms are available in the Admission office. Appeals submitted without supporting documentation will automatically be denied. Student may re-appeal if they can provide the necessary documentation to support their appeal. Appeals are approved only if extenuating circumstances exist beyond the student’s control that justifies an exception to the refund/cancellation policy. It is the student’s responsibility to be aware of Faculty policy.

4. **Special Admissions Appeal**: Deals with all appeals relating to student undergraduate admission. A student may file an appeal for special consideration if unusual or extenuating circumstances prevented him/her from meeting the admission standards, meeting the application deadline and from meeting the requirements of provisional status. Students should provide any documentation of the situation. Forms should be picked up and returned to the Admission office.

5. **Appeal to drop a class after the deadline**: If students need to drop a single class in a current semester after the published deadline, but before the end of the semester, they must appeal to the Dean. In most cases, the Dean have delegated this to a faculty and the process may vary. The student must make an appeal in writing and provide documentation of extenuating circumstances that would justify an exemption from the deadline policy. If the Faculty gives permission, the student will complete the “Appeal to Drop After the Deadline” form and can then proceed to request approval and signature from the instructor.

6. **Appeal to completely withdraw after the deadline**: If a student needs to completely withdraw (drop all courses) after the published deadline, but before the finals week of the current semester, they must appeal through the Registrar’s Office. The student must provide a thorough, written explanation regarding their circumstances, as well as, documentation of extenuating circumstances beyond their control that prevented them from both completion of their courses and from withdrawing within the confines of the deadline dates. If a student needs to appeal to drop their only class, that is a complete withdrawal. Forms may be picked up (mailed or e-mailed) and then returned to the office of the Registrar.

**9- Health and Safety policy**

Faculty of Biotechnology seeks to maintain a healthy work environment, as well as the safety and well being of its employees. All employees and contractors shall take responsibility in achieving this aim. Employees and contractors shall comply with the Health and Safety policies, guidelines and principles.

a. **Requirements and regulations**

i. **Health**

The aim of Faculty of Biotechnology is to protect and promote the health of Faculty of Biotechnology community and their visitors, to enhance public health practice and support workforce development. Actions will be taken
directly by Faculty of Biotechnology to prevent the development and spread of disease and illness. It includes activities such as health surveillance and the introduction of regulations to prevent the exposure of individuals to health hazards. Consequently, the public health standards will be applied for the following:

**Food Control**

Concerning the conditions of public health, this required to be available in Faculty of Biotechnology cafeterias and restaurants. The violations or any unacceptable performance is subject for taking precautions and sanction procedures by public health inspectors such as, confiscate the materials, warning letters, and closing the outlet.

**Drinking Water**

- Drinking water will be subject for the lab analysis if there was any failure has been noticed concerning the water tanks.
- Faculty of Biotechnology is responsible for taking any precautions or improvements will be required for the drinking water.

**Environmental Control**

Faculty of Biotechnology takes the responsibility (direct or indirect) to:

- Remove the rubbish from Faculty of Biotechnology campus on daily bases, including the official holidays and days of weekend.
- Conduct pest control operations outside Faculty of Biotechnology buildings permanently
- Prevention of flies conducting on weekly bases.
- Prevention of mosquito conducting on weekly bases.
- Prevention of rats be conducted if needed and after prior permission

**ii. Safety**

All students, management, staff and faculty are required to abide by these rules, which are incompliance with the requirements of laws and regulations for heath and safety.

- Each person employed by or studying at Faculty of Biotechnology has a responsibility to care for his/her own safety and for the safety of others. All persons working at Faculty of Biotechnology should aim to improve the safety environment of the community.
- All those having a supervisory role at Faculty of Biotechnology are expected to identify and report the hazards in their area of control, and propose solutions within their area of expertise.
- Specialized safety persons should carry out risk assessments and propose adequate solutions to remove identified hazards.
- Specialized persons should take the appropriate control measures to reduce the level of risk associated with the identified and potential hazards.
- All personnel who may be affected by such hazards must be made aware of the risk assessment and the control measures introduced to reduce the risk in that particular area.
- Visitors working in a department do so with the permission of the head of the department or an authorized deputy, and are required to follow departmental safety procedures. A visitor is any person who is not a member of the staff or a student of that department.
• All injuries and hazardous conditions must be reported to a supervisor immediately.
• Students, staff and faculty must follow the safety rules defined in each department at all times, and also implement the procedures to minimize safety hazards.
• Approval of an authorized supervisor is required before any staff and/or faculty member can make any changes in established safety rules and procedures.
• Direction and monitoring from a supervisor is required before any staff or faculty member can proceed with any hazardous job or the operation of any machine with which he is not familiar or unsure of its hazards.
• All faculty, staff and students are required to know the following:
  ▪ The evacuation plan and the emergency procedures to be followed in the event of fire or any other emergency that will put personnel at risk. Each building will have an evacuation plan tailored to the personnel in the facility and the types of hazards associated with the activities in the facility.
  ▪ All the escape routes that are posted near the area where they are working. The escape route floor plans will be clearly posted in very building.
  ▪ The location and operation of fire extinguishers and alarms, and how to operate them. Instructions and training on the use of this equipment is mandatory.
  ▪ Each building should have fire extinguishers appropriate for its activities.
  ▪ The fire extinguishers should be checked regularly by qualified personnel.
  ▪ Personal protection equipment, such as goggles, earmuffs and respirators must be worn when required.
  ▪ All workers should familiarize themselves with the location of the first-aid kit and its use.
  ▪ Use, store and/or transport flammable and toxic substances and compressed gases only according to the procedures posted.
  ▪ Obey the non-smoking policy of Faculty of Biotechnology.

b. Safety equipment in labs and other areas
There are many different types of safety equipment in laboratories at Faculty of Biotechnology. The laboratory supervisor should ensure that laboratory workers are familiar with the location and proper operation of safety equipment available to the laboratory. Some of more common pieces of laboratory safety equipment include:

i. Ventilation Systems
The design of laboratory ventilation systems is considered and integrated into the building’s supply and exhaust systems. System components includes the supply air, exhaust requirements and general room ventilation.

ii. Chemical Fume Hoods
Chemical fume hoods are the most common equipment to protect against inhalation of chemicals at Faculty of Biotechnology. Annual inspection of
chemical fume hoods will be performed to ensure they are functioning properly. If a laboratory worker suspects that a chemical fume hood is not functioning properly, he/she should report to the head of the department. When using a chemical fume hood, laboratory workers should follow these guidelines:

i. On sashes that open vertically, keep the sash as low as possible. The sash should never exceed the maximum sash height indicated on the inspection sticker.

ii. Keep only what is needed for the task in the hood. Excess equipment in the hood can reduce the provided protection.

iii. Work as far back in the hood as possible; ideally, at least 15 centimeters from the opening.

iv. Taping a light paper “flag” to the bottom of the sash can serve as a rudimentary airflow indicator. If the flag does not indicate inward airflow, stop work, lower the sash, and report the problem to the head of the department.

iii. Chemical Spill Containment Kits

Chemical Spill Containment Kits are provided in common areas to provide laboratories with basic equipment to contain a chemical spill. These kits are stocked with general material to help contain a large chemical spill. The Laboratory Supervisor is responsible for providing spill containment/clean up material appropriate to the chemicals used in the laboratory.

iv. Eye Wash Station

The emergency eye wash station provides a means to remove chemical contamination and other hazardous materials from the eyes and/or face. Laboratory personnel should follow these guidelines when using the eye wash station:

i. Eye wash stations are inspected annually to ensure they meet appropriate standards and regulations.

ii. Laboratory workers should flush their eye wash stations weekly to ensure clean water is available in the event of an emergency.

iii. Eye wash stations should be clearly marked and kept free from obstructions.

iv. In the event of eye contamination, the laboratory worker should hold his/her eye open and rinse for a minimum of 15 minutes, then seek medical attention.

v. Fire Extinguishers and Blankets

Some laboratories are provided with fire blankets. Fire blankets are only required in the event the laboratory works with flammable materials, but no safety shower is available. The laboratory is responsible for maintaining fire blankets.

Fire extinguishers are provided to laboratories in the event a fire blocks a means of egress and the laboratory worker must fight a fire to save his/her own life. No laboratory worker is expected or required to use a fire extinguisher except to escape a life-threatening situation.
Fire extinguishers are inspected annually and replaced as needed. Laboratories should have the appropriate class of extinguisher for the fire hazards in the lab.

vi. First Aid Kit
First aid kits shall be readily accessible to laboratory staff at all times while they are at work. Lab workers shall be trained to know the location of the kit. Hazard-specific first aid supplies shall be made available, as appropriate, when work involves particular chemicals such as cyanides or hydrofluoric acid. Exposures to these severely toxic agents warrant immediate application of special remedies.

c. Safety measures and emergency evacuation procedures Orientation

Orientation of the campus community to safety measures
The staff members and employees will be informed through orientation sessions about their responsibility and how to act and respond to certain safety measures. The orientation sessions will address the follow:

Department Responsibility
In order to achieve the objectives of the Health, Safety and Environment policy, the Department shall adhere to:

- Setting health and safety norms and standards as well as the procedures and practices governing them.
- Acquainting all employees and visitors with health and safety procedures
- Providing appropriate safety gear to employees as per their job requirements.
- Providing adequate training, information, instructions and supervision.
- Ensuring that all equipment, machinery, and tools are in good working conditions.
- Ensuring that all hazardous substances are stored in accordance with safety standards and norms.
- Promptly investigating any accidents or dangerous situations to rectify the risk.

Employees Responsibilities
The employees shall adhere to:

- Performing duties in a way that would ensure their safety and the safety of others
- Complying with the health and safety policy set by the Department
- Not misusing any safety equipment or gear provided by the Department
- Reporting to management any hazardous situation, equipment or material
- Abstaining from undertaking any tasks that they are not qualified to perform
- Personnel discovering an actual fire should activate the building alarm along with calling the police.
• A person may become aware of a bomb threat by a telephone call, e-mail, letter, etc. The person shall notify Faculty of Biotechnology security after getting as much information as possible. After notifying the security, the person should then notify his or her supervisor and Department head as quickly as possible. A decision will be made to determine if a building evacuation is warranted. If it is warranted, evacuation should take place as outlined in the Emergency Evacuation Procedure.

**Emergency Evacuation Procedures:**

In the event of a decision to evacuate a Faculty building because of Fire, Bomb Threat, or other confirmed life threatening circumstance the following procedure will be followed.

• Once it has been determined a dangerous or life threatening condition exists. Evacuation will be announced by the sounding of the emergency evacuation bells, horns or fire alarm.

• All Faculty personnel are expected to promptly respond to the emergency evacuation alarm and to follow the emergency evacuation plan for the building in which they are located.

• Unless unusual conditions dictate otherwise, the best evacuation route is the nearest stairway and out the nearest exit.

• Building code requirements result in stairways being the safest locations in a building in the event of a fire. Stairways are routinely checked for people needing assistance by the firefighters.

• Elevators should not be used as a means of evacuation. The high potential for electrical or mechanical malfunctions coupled with the increased risk of smoke inhalation makes elevators an unsafe means of evacuation.

• Individuals on elevators when the alarm bells sound are advised to exit at the first opportunity and evacuate via the nearest stairway.

• Evacuees should not stop immediately after exiting the building, but proceed well away from the building so as to be clear of any danger and to not impede the movements of emergency response personnel and/or equipment.

• Classroom instructors are expected to interrupt class activity and advise students to evacuate the building. Students are obligated to follow emergency procedures in accordance with the Code of Student Conduct.
10. Diversity Statement
The Faculty and its faculty and staff are committed to providing an equal educational opportunity to all students. One of the facets of the Faculty includes the opportunity to learn in an environment where there are other individuals from varied backgrounds and characteristics, which include, but are not limited to, race, ethnicity, religion, spiritual beliefs, national origin, gender, socioeconomic background, disability and intellectual perspective. The Faculty does not condone harassment (or other forms of inappropriate conduct) against any student.

11. Faculty of Biotechnology Alcohol and Drugs policy
The Faculty is committed to the maintenance of a drug and alcohol free work place and the encouragement of a standard of conduct for employees and students that discourages the unlawful possession, use or distribution of controlled substances and alcohol on its property or as a part of any of its activities. Therefore, the unauthorized or unlawful possession, use, manufacture, or distribution of controlled substances or alcohol on Faculty property or as a part of any of the Faculty's activities is expressly prohibited.

Statement of Disciplinary Action
Students violating the Faculty policy on alcohol or drugs are subject to sanctions up to and including expulsion from the Faculty and referral for prosecution. Students who use or possess drugs or alcohols are typically suspended from the Faculty and will have his/her parents notified.

12- Sex Offense Policies
Students committing sex offenses, whether on or off campus, are subject to Faculty disciplinary action as well as criminal action.

13- Faculty of Biotechnology Sexual Harassment Policy
Sexual harassment is defined as unwelcome sexual advances, requests for sexual favors or other verbal or physical conduct of a sexual nature. Sexual harassment is a violation of both law and Faculty policy and will not be tolerated at the Faculty. The Faculty considers sexual harassment a very serious issue and shall subject the offender to dismissal or other sanctions following the Faculty’s investigation and substantiation of the complaint and compliance with due process requirements.

14- Consensual Relationships Policy
Basic functions of a Faculty are the discovery and transmission of knowledge, activities which are founded upon the free and open exchange of ideas. For productive learning and the work that supports it to occur, members of the campus community should pursue their responsibilities guided by a strong commitment to principles of mutual trust, respect and confidence, as well as professional codes of conduct. Relationships between faculty, staff and students may involve power differentials that can carry risks of conflict of interest, breach of trust, abuse of power, and breach of professional ethics. Trust and respect are diminished when those in “positions of authority” are perceived as abusing their power. Those who abuse their power in such a context violate a duty to the Faculty community,
undermine professionalism and hinder fulfillment of the Faculty’s educational mission.

**a. Guidelines**
It should be understood by all members of the campus community that consensual relationships that occur in the context of educational or employment supervision and evaluation are generally deemed unwise because they present serious ethical concerns. Employees, whether faculty or staff, shall not engage in consensual relationships with students whenever the employee has a “position of authority” with respect to the student in such matters as teaching or in otherwise evaluating, supervising, or advising a student as part of the Faculty program or employment situation. Even in instances in which the employee, especially a Faculty members, has no direct professional responsibility for a student, the employee should be sensitive to the perceptions of other students that a student who has a consensual relationship with a Faculty members may receive preferential treatment from the Faculty members or the Faculty member’s colleagues. Consensual relationships between Faculty members and students occurring outside the instructional context may lead to difficulties particularly when the Faculty members and student are in the same academic unit or in units that are academically allied. The Faculty members may face serious conflicts of interest and should be careful to distance himself/herself from any decisions that reward or penalize the student involved. Supervisors, whether faculty or staff, shall not engage in consensual relationships with employees when the supervisor has a “position of authority” with respect to the employee. Other faculty and staff may be affected because it places one in a position to favor or advance another’s interest and implicitly makes obtaining benefits contingent on the relationship.

**b. Procedures**
When a consensual relationship exists or develops between an individual having a “position of authority” with respect to another within the Faculty, the person with the greater position shall immediately terminate the “position of authority” and report it to an appropriate supervisor. The supervisor shall make suitable arrangements for the objective evaluation of the student’s academic or employee’s job performance and for the protection of individual and Faculty interests.

**c. Noncompliance with Policy**
Faculty and staff who fail to remove themselves from a “position of authority” over a student or employee with whom a consensual relationship exists will be deemed to have violated an ethical obligation to students, employees, colleagues, and the Faculty. Credible allegations of Faculty member’s failure to avoid or terminate a relationship involving a “position of authority” while in a consensual relationship obligates the immediate or other appropriate supervisor to conduct a prompt and thorough inquiry to determine whether there is any validity to the allegation. Where it is concluded that a relationship involving a “position of authority” exists, the immediate or other appropriate supervisor shall terminate the “position of authority” and may impose sanctions against the parties involved.
Graduation Project Guidelines

Faculty of Biotechnology

RS-400/ RS-401

Graduation Project Coordinator
Dr. Ayman Diab

Graduation Project Committee

Professor. Ali Diab
Dr. Osama Saad
Dr. Ahmed Nada
Dr. Ibraheem Tahseen
Dr. Gihan Safwat
Dear Student,

The goal of the graduation project is to give you an opportunity to demonstrate the scientific knowledge, skills, talents and abilities that you have gained and refined during your presence as an undergraduate student at the faculty of biotechnology. This project will fulfill a requirement set forth for you by both the October University for Sciences and Arts and The University of Greenwich.

The graduation project offers you the opportunity to choose your area of interest, to combine different disciplines and ideas, to explore new avenues in a productive manner, and, at the same time, incorporate the principles in the faculty's mission statement, as well as the October University for Sciences and Arts education standards. Depending on the area of study, individual projects may demonstrate mastery of the University of Greenwich's Standards for other disciplines as well.

As you begin to design and formulate possible ideas for your graduation project, please remember that a successful graduation project should:

- Provide a challenge
- Exhibit self-directed/independent thought
- Demonstrate knowledge, skills, talents and interests
- Communicate all steps of the process used to complete the project
- Contain well-written, thorough documentation
- Display personal growth and learning gained through the completion of the project
- Present a clear investment of time and energy
- Result in a clear, concrete outcome or tangible product
- Illustrate care and personal integrity when fulfilling all requirements and meeting timelines
- Culminate in a creative, unique, well-organized presentation that utilizes your strengths

Your graduation project should, upon completion, fulfill all of these elements. Your proposal, written portion, self-evaluation/reflection and oral presentation should illustrate how your project is a success when measured against these criteria.

The following pages will walk you through the steps to complete your graduation project.

Sincerely,
Ayman Diab

Dean of the Faculty of Biotechnology
Course Description

Course Code: RS 400 and RS 401
Course Title: Research Project
Course Coordinator: Dr. Ayman Diab
Level: 4 (1st Semester)
School: Biotechnology
Credit: 11 credit hours
Pre-requisites: SEM 302
Subject Group: Research

AIMS

The aims of the course are:

- To enable students to undertake a research project in an area of biotechnology
- To develop laboratory skills to become independent in designing and executing experiments.
- To develop their ability to present, interpret and discuss research results, having students acquire the ability to design and execute research experiment.
- To provide hands-on experience with routine laboratory equipments.
- To acquire a practical understanding of experimentation to complement lectures.
- To have capability of working independently and in a research team.

LEARNING OUTCOMES:

Upon completion of this course, students will be able to:

Knowledge:

- Appreciate the efforts and experiences needed in the execution of seminars or research topics.
- Investigate new subjects through designing and executing research experiments.
- Evaluate the results of a new search and interpret the appropriate results into a research project or manuscript to be presented.

Skills:

- Acquire searching, writing and problem-solving skills.
- Design appropriate experimental or data collection techniques.
- Acquire scientific presentation skills, both oral and written, whether as a seminar or a research report.
- Work independently and apply their knowledge and skills to the solution of a specific theoretical problem.
- Critically assess research results and the work of others i.e. published materials.
- Use all relevant literature sources to carry out a detailed search into a general topic and a specific scientific problem.
- Prepare a detailed and structured report on the project.
- Present clear oral presentations with appropriate and adequate use of supporting visual aid material.
- Manage their time, plan ahead and prioritize their activities.

**Main Learning and Teaching Activities : (Strategies)**

Supervision is arranged to ensure that the student progresses at an appropriate pace through his/her project and also draws upon his/her own initiative and store of relevant knowledge. Students will be expected to make full use of computing facilities, laboratories, special purpose equipment, library and other facilities. It will be the responsibility of the project supervisor to ensure that students do not devote a disproportionate amount of time and effort to their project work, at the expense of their other academic work.

**Assessment Details:**

<table>
<thead>
<tr>
<th>Methods of Assessment</th>
<th>Weighting %</th>
<th>Pages</th>
<th>Outline Details</th>
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<tbody>
<tr>
<td><strong>Written report</strong></td>
<td>50%</td>
<td>60-80</td>
<td>Students will present a written report of the theoretical, practical work &amp; literature search together with a critical evaluation of the work &amp; results in the form of the following:</td>
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<td>1- Project Title</td>
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<td>2- Objectives</td>
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<td></td>
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<td>3- Abstract</td>
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<td></td>
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<td>4- Introduction (Literature review)</td>
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<td>5- Materials and Methods</td>
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<td>6- Results</td>
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<td>7- Discussions</td>
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<td>8- Recommendations (if applicable)</td>
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<td>9- References</td>
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<tr>
<td><strong>Practical work</strong></td>
<td>30%</td>
<td></td>
<td>Supervision of successive result achievements through regular inspection of the student’s lab note and evaluation sheet to be filled by the external supervisor.</td>
</tr>
<tr>
<td><strong>Oral Presentation</strong></td>
<td>20%</td>
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</tbody>
</table>
Assessment will focus upon:

- The general organization of the report and quality of the written English.
- A clear and concise abstract.
- The extent of the student’s achievement of the original or modified objective(s) of the project.
- The critical evaluation of data or a critical review of theoretical published work.
- The critical discussion of the results leading to appropriate conclusions.
- Evidence of professional standards applied throughout the project (i.e. documentation standards, lab activities, lab notes and documentations of the results).
- Provision and evidence of the use of appropriate references and bibliography.
- The accuracy and technical merit of the project.
- The merit of the written report and oral presentations in addressing non-technical issues.

**NOTE: The written report will be checked for Plagiarism using turnit in software. Reports with more that 20% plagiarize will be rejected. Each students will have only one chance to resubmit the final project report.**

The project supervisor(s) will prepare a report and fill an evaluation sheet on the project which will include an assessment of the difficulty of the project, the student’s approach to it, the accuracy and reliability of the results and conclusions and the quality of the final project report. The student’s project as written report and oral presentations will be made available for the external examiners.

**Indicative Texts:**
A range of appropriate research literature to cover the topic of the project will be determined by the direct supervisor(s), however, the students are encouraged to search and use appropriate references for their project research.
Project Guidelines

I) Introduction

The students will spend 22 hours per week for a twelve week period undertaking the project; the students will present their results at a series of seminars to an audience of the peers and academic staff. The students will subsequently submit a typed report of the research for reviewing by faculty staff member(s) and two external examiners.

This Guide has been prepared by the Faculty of Biotechnology staff members in order to give general guidelines for the contents of the project proposal.

II) Documents to be submitted before lab work

The following sections are to be filled by the student and his/her direct supervisor(s) and to be submitted to the Faculty Dean before starting the actual lab work:

1. Title page
2. Project Background
3. Objectives
4. Statement of Proposed Research
5. Time table and Milestones

1. Title page

- A concise and informative title
- The Student and the supervisor(s)
- The affiliation(s) and address(es) of the supervisor(s)

2. Project Background

This is the most important part of the project. You must have a baseline, which identifies the scope of the problem and your starting point in addressing it.

The proposal Background should:

- Describe the need for this kind of project
- Outline the portion of this larger problem you plan to deal with
- Include Expert opinions (including quotes)
- Include Literature review
- Document the significance of the problem with Data

3. Objectives
The objectives should describe clearly the expected general outcome(s) of the research project. *The objectives should be achievable within the project duration (12 weeks)*

4. Statement of Proposed Research
This section describes what you want to accomplish. You must describe the statement of the proposed research using “SMART” way

- Specific
- Measurable
- Achievable
- Realistic
- Time-Limited

5. Time table and Milestones
Using a time chart, specify the activities and the time frame for each one. Taking in considerations that your project duration time is 12 week.

III) Writing the final project reports
Using your own words, you are requested to submit a final written report of **60-80 pages** using **time new roman font** and **12pt font size**. The report should include the following:

1. Title page
2. Abstract
3. Introduction (Literature review)
4. Materials and Methods
5. Results
6. Discussions
7. References
8. Acknowledgements

1. Title page
- A concise and informative title
- The Student and the supervisor(s)
- The affiliation(s) and address(es) of the supervisor(s)

2. Abstract
The abstract (one page maximum) and contains the rationale, objectives, methods, results, and their meaning or scope of application. Be specific. Do not cite references. You may prepare the abstract after the proposal has developed in order to encompass
all the key points necessary to communicate the objectives of the project. The initial impression it gives will be critical to the success of the project.

The abstract should include a brief on:

- Summary on the benefits of your project and the expected impact
- Description of the project in view of the local/international needs
- Summary on your objectives and proposed methods
- How your project is innovative

3. Introduction
The introduction should state the purpose of the investigation and give a short review of the pertinent literature.

4. Materials and Methods
This section is the core of your proposal, it should describe your project design, and how will you be able to achieve your objectives. It should explain in a narrative way, different activities that you intend to take during the lifetime of the project, and it must explain the rationale for the program (relate it to the problem) and explain how the program will work. Main elements of this section should include:

- Description of the methods you used to accomplish each of your objectives
- The details of the procedures and the list of chemicals used in the project

5. Results
The results section should describe the outcome of the study. Data should be presented as concisely as possible. Use tables, graphs, Figures, pictures or any illustration to better present your results. All Figures and Tables should be cited in the text, and each numbered consecutively throughout.

6. Discussions
The Discussion should be an interpretation of the results and their significance with reference to work by other authors.
7. References
The reference list should appear at the end of the project report and should be cited in
the text. References should only include works that have been published print and
online. Papers which have been accepted for publication should be included in the list
of references with the name of the journal and “in press”. Personal communications
should only be mentioned in the text.

How to cite references:
Journals:
Kraft T, Hansen M, Nilsson N-O (2000) Linkage disequilibrium and fingerprinting in
sugar beet. Theor Appl Genet 101:323–326

Books:
New York, pp 87–109

Multiauthor books:
(eds) Head injuries in the newborn and infant. (Principles of pediatric neurosurgery)
Springer, Berlin Heidelberg New York, pp 87–109

Organization site:
20 Feb 2000

8. Acknowledgements
The Acknowledgements should be as brief as possible. The names of institute and
your supervisors should be written in full.

IV) Final project report Due Date
The due date for submitting the final project report is 4th of January 2009. However, Students are encouraged to submit a draft for editing by the advisor(s) before the dead line. You are requested to submit both hard and soft copy of your
final project report.
Student’s Responsibility

General Rules

1- Present in the laboratory on time and dates specified by the supervisor
2- Bringing his/her own lab coat and stationeries
3- Follow the rules and regulations of the hosting institute
4- Work and deal with other people in the hosting institute in a respectable and friendly manner
5- The student’s scientific achievement and personal behavior will be monitored by the student’s external supervisor and the Faculty administration.
6- The scientific ethics should be followed in recording the research project results

Lab Notes

1- It is the student’s responsibility to provide a lab note book (Hard cover note book with 200-250 papers)
2- The students should use this note book to write down and document all his/her activities in the lab on a daily base.
3- This not book should be signed by the field supervisor on a weekly base.
4- The student should submit the signed lab note not later than 4 January 2009 for evaluation
Calendar of Due Dates

Listed below are the due dates for each segment of the Graduation Project. Any item may be submitted for review before the due date; however, no portion of the project may be submitted after the **FINAL** date listed below. Any student who fails to successfully complete the Graduation Project will not graduate at the end of the academic year and will be required to repeat their senior year in order to complete their Graduation project. No one will receive an extension for time unless s/he can prove that there was an extreme and documented emergency that is approved by the Graduation Project Team and/or the Dean.

<table>
<thead>
<tr>
<th>Item</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Proposal Form</td>
<td>Mon. March 1(^{st}), 2010</td>
</tr>
<tr>
<td>Research Paper Topic Approval</td>
<td>Mon. March 15(^{th}), 2010</td>
</tr>
<tr>
<td>Research Ethics Committee's Approval</td>
<td>Mon. March 22(^{nd}), 2010</td>
</tr>
<tr>
<td>Research Paper Draft for Turnitin check</td>
<td>Mon. May 10(^{th}), 2010</td>
</tr>
<tr>
<td>Graduation Project Presentations Form</td>
<td>Mon. Jun. 28(^{th}), 2010</td>
</tr>
</tbody>
</table>
**GRADUATION PROJECT REQUIREMENTS**

There are four separate elements to the Graduation Project:

1. Lab Performance Report "signed by the lab advisor"
2. Research Ethics Committee's Approval
3. Draft of the thesis "to be checked on the turn-it in"
4. Research Thesis "approved by the graduation committee"
5. Presentation of your product

1. The **LAB PERFORMANCE REPORT** is a provided form that describes your ability to work in a lab and to demonstrate your ability to solve problems and to deal with equipments, apparatus and chemicals.

2. The **RESEARCH ETHICS COMMITTEE** is to increase the amount of legislations that have been introduced to protect research participants. Ethical codes target the researchers, but ethical committees have come into existence to aid the researcher and to ensure that rules are followed. Ethical rules and codes have emerged within medical research, and still today in most countries, the legal requirements for research protocols to be checked by ethics committees are confined to medical research.

3. The **DRAFT OF THE THESIS** is a useful way to check after you for plagiarism to ensure originality, as well as use of proper citation.

4. The **RESEARCH THESIS** is the written requirement that will be fulfilled as part of graduation process. The research paper has specific requirements that are outlined elsewhere in this document. The research paper will be graded by three different professors and will be a part of the student’s graduation grade.

5. The **PRESENTATION** is the oral staging or explanation of your product. It is the final step in the Graduation Project. The presentation should be between 8 -10 minutes, with an additional 3-5 minutes for questions and answers. Each student will present his/her product to a group of faculty members of the Faculty of biotechnology and other members of a scientific committee. "Parents, friends and relatives are allowed to attend the presentations".
Faculty of Biotechnology

Submitting your Proposal

A successful proposal includes specific details and explains clearly how you will meet the goals of your chosen project. Proposal should be neat, typed, and free of grammatical and spelling errors. "Forms will be provided".

After you have completed your proposal, you submit it to your advisor. S/he will read and comment on your proposal. If the proposal is accepted it will be returned to you and you may begin work on your project. Any proposal that does not meet the criteria will be returned for revision and should be resubmitted within a week. The following list of questions will be used as criteria for accepting a project proposal:

1. Are all elements of the proposal completed with thought and care?
2. Are all required signatures included?
3. Does the project clearly demonstrate a challenge?
4. Does the project exhibit self-directed/independent thought?
5. Is the project a demonstration of knowledge, skills, talents, and/or interests?
6. Is a clear investment of time and energy involved?
7. Will the project result in a clear, concrete outcome or tangible product?
8. Will the project culminate in a creative, well-organized presentation that utilizes student strengths?

Remember - Do not begin your project until your proposal has been accepted!
Thesis Requirement

Length:  60-80 pages typed, double spaced, 12 point Times New Roman font.

Format:  1-inch margins, proper heading and header, with a title page.

Weight:  50 % of marking period grade

Requirements:

• All drafts typed in proper font and size.

• Minimum 5 reputable sources (all must be valid sources from experts in the field or should be published by professionals in the field).
  o At least two sources are to be books.
  o Each source should be referenced at least once within the body of your paper.

• Complete Works Cited page at conclusion of paper.

Topics:

• You may choose to create your own topic, but you MUST get your topic approved by your advisor BEFORE you begin.

• If you are having trouble picking a topic, please see the coordinator for a possible topic list.

Final draft: December 31st, 2009

NOTE: Any plagiarism will result in return your paper to be revised and rephrased in a week.
Senior Project Research Paper Rubric

I. Mechanics (25%)

- Usage / Spelling
- Grammar / Punctuation
- Sentence structure and variety
- Typos

II. Structure (50%)

- Title and introduction (15%)
  - Serves as introduction to the play, clearly and concisely sets up thesis
  - Thesis statement
- Body paragraphs (35%)
  - All points support the thesis
  - Supporting evidence from preliminary sources and secondary texts
  - Appropriate explanations and connections discussed by student
  - Organization: logical, clear order and progression.
    - Chronological, order of importance, etc.
- Conclusion (25%)
  - Summary of main ideas
  - No new arguments
FORMS
Graduation Project Proposal Form

Student Name: ..............................................................................
Student I.D.: ..............................................................................

Advisor: ...................................................

Project
Title: .........................................................................................

What is your idea for this project? (Describe your project)
.................................................................................................
.................................................................................................
.................................................................................................
.................................................................................................
.................................................................................................

What steps will you take to complete your project? (Make an outline)
.................................................................................................
.................................................................................................
.................................................................................................
.................................................................................................
.................................................................................................

Student’s Signature: _______________________________ Date: __________
_________________________
For Advisors Only:

Answer the following questions to approve this project:

1. Are all elements of the proposal completed with thought and care?  
   - Yes / No
2. Are all required signatures included?  
   - Yes / No
3. Does the project represent a clear challenge to the student?  
   - Yes / No
4. Does the project exhibit self-directed or independent thought?  
   - Yes / No
5. Is the project a demonstration of skills, knowledge, talents, interests?  
   - Yes / No
6. Is a clear investment of time and energy involved?  
   - Yes / No
7. Will the project result in a clear, concrete outcome or tangible product?  
   - Yes / No
8. Will the project end in a creative, well-organized presentation that uses student’s strengths?  
   - Yes / No

☐ Approved  ☐ Need Revisions  Advisor’s Signature ______________________
Date ______

☐ Revisions Approved  Advisor’s Signature ______________________
Date ______

Return this completed form to your Advisor
Faculty of Biotechnology
Receipt of Graduation Project Manual

Student Name: - ........................................................................................................

Student ID: - ........................................................................................................

Home Phone No.: - .................................................................................................

Cell phone No.: - ....................................................................................................

Parent’s Cell phone No.: - ......................................................................................

Email: - ..................................................................................................................

Number of achieved Credit hours: - .........................................................................

Accumulative GPA:- ............................................................................................
I hereby acknowledge that I have received a Graduation Project Booklet.

________________________________________
Student’s Signature

_______/___/____________
Date

Return this completed form to your Advisor
Faculty of Biotechnology

Lab Performance Report

Student Name: ..................................................................................
Student I.D.: ..................................................................................

Advisor: .................................................................

Project
Title: ..................................................................................

Host institute:
..................................................................................

Lab supervisor:
..................................................................................

1- Does the student attend regularly? ................................................. ( /10)
2- Does the student discuss her/his progress fruitfully with the advisor .... ( /10)
3- Does the student demonstrate clear method(s) to solve her/his research problems .................................................................................. ( /10)
4- Demonstrate the ability to use equipments to meet scientific standard? .................................................................................. ( /10)
5- Does the student apply scientific concepts and thinking related to her/his projects? .................................................................................. ( /10)
6- Does the student use proper mathematical statistical forms and formulas? ( /10)
7- Does the student use logic and appropriate way to evaluate her/his results?.........................................................................................................................( /10)

8- Does the student have organized mind and work independently?...................( /10)

9- Does the student take additional initiatives to extract novel ideas out of project ................................................................. ( /10)

10- Does the student cooperate with her/his colleagues?...........................................( /10)

Evaluator:............................................Date: ..............................................
Faculty of Biotechnology

Thesis Evaluation Form

Student Name: .................................................................
Student I.D.: .................................................................

Advisor: .................................................................
Project
Title: ........................................................................

Host institute:
........................................................................

1- Introduction
........................................................................( /10)

2- Materials and Methods
........................................................................( /5)

3- Discussion and Conclusion
........................................................................( /15)

4- Results ........................................................................( /10)

5- References ........................................................................( /10)

Evaluator ................................................................. Date: .................................
Faculty of Biotechnology

Presentation Evaluation Form

Student Name: ____________________________________________________________

Student I.D.: ____________________________________________________________

Advisor: _________________________________

Project

Title: _________________________________________________________________

Host institute: __________________________________________________________

Visuasl:

Readable: _____________________________________________________________( /5)

Consistent Images: _____________________________________________________( /5)

Relevant: ______________________________________________________________( /5)

Understandable: _______________________________________________________( /5)

Concise: _______________________________________________________________( /5)

Delivery:

Voice Level: ____________________________________________________________( /5)

Emphasis: _______________________________________________________________( /5)

Use of Technology: _____________________________________________________( /5)

Engagement with Audience: _____________________________________________( /5)
Initiate novel ideas...................................................................................( /5)

Contents:

Introduction...........................................................................................( /5)
Good Transition....................................................................................( /5)
Organization........................................................................................( /5)
Conclusion............................................................................................( /5)
Flows Well...........................................................................................( /5)

Overall Evaluation:

Language................................................................................................( /5)
On time...................................................................................................( /5)
Appropriate Answers for Questions......................................................( /5)
Appropriate Details for Audience.........................................................( /5)
Mannerisms...........................................................................................( /5)

Evaluator .................................................Date: ..........................