



# Majmaah University

College of Computer and Information Science (CCIS)

Department of Information Technology

**MS in Cybersecurity and Digital Forensics (CSDF)**

**Program Regulations and Evaluations**

**Oct 2021**

# 1. STUDY REGULATIONS AND TESTS

## Student Performance

At the masters level, a programme coordinator manages the program and also allocates academic advisors. After assigning an academic advisor for each student in the program, the student is required to meet his/her academic advisor for the purpose of registration based on his/her study plan, addressing any academic or career issues, and meeting graduation requirements. Each student has his/her own study plan based on the progress in his/her academic study and his/ her choice of the program's tracks. The student is required to maintain an updated study plan each semester to help him/her in choosing appropriate courses for registration in the following semester and to easily follow up the academic progress. The study plan is available for both students and academic advisors<sup>1</sup>.

At th master's level, the student should obtain atleast a B grade (8.0) in each course to be considered pass in that course. The performance of the student in his/her courses is evaluated by the instructor using course assessment tools such as final exams, midterms, quizzes, homework, projects, reports etc. that fulfill the course/student outcomes. The instructors are invited to submit list of students who suffer difficulties in their classes to academic advisors. This will help the advisors to present assistance to those students in order to improve their performance in the class. In addition, students are encouraged to stop by their instructor's office during the office hours to discuss with them any concerns regarding the course.

## Grade Distribution

The full mark for every course is 100, which is typically distributed as follows:

20 Marks for Midterm Exam

40 Marks for Final Exam that covers the entire course contents.

40 Marks for Semester work such as: verbal and written tests, reports or research work or additional studies, experimental lab, and weekly or monthly homework.

Instructors could alter this distribution given that the grade of the Final Exam does not exceed 60% of the total course grade, in addition to at least one midterm exam for no less than 20% of the total course grade.

## Examination

The overall marks of any course is calculated as following

1. Sixty (60) marks out of one hundred (100) for student work during the semester that includes at least one written midterm and one or more of the following choices
    - Written midterm
    - Quizzes
    - Oral exams
    - Projects
    - Presentations
    - Class Activities
    - Laboratory work
    - Research
  2. Forty (40) marks for the final examination that designated during the last week of each semester of the academic year.
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Table 1.5 shows the grading system used at Majmaah University. The table shows that each letter grade has a numeric value represented by points. The points of each course are based on this number value and the credit hour value of that course. The following table shows the letter grades and their related points, course grade, and mark.

Table 1.5: Grading System at Majmaah University

Grade	Points	Course Grade	Mark
A+	5.00	Excellent Plus	95 – 100
A	4.75	Excellent	90 less than 95
B+	4.50	Very Good Plus	85 less than 90
B	4.00	Very Good	80 less than 85
C+	3.50	Good Plus	75 less than 80
C	3.00	Good	70 less than 75
D+	2.50	Pass Plus	65 less than 70
D	2.00	Pass	60 less than 65
F	0.00	Fail	Less than 60
IC		Incomplete	
IP		In process	
W		Withdrawal	
DN	1.00	Deprivation	

Courses with a grade of IC, IP, and W carry no grade value. The grade of incomplete (IC) initially carries no grade value for courses that require more than one semester. The Department Council responsible for that course may allow the student to complete the requirements of any course in the following semester on the basis of a recommendation by the instructor of the course. The student then receives (IC) grade in his/her academic record and it is not calculated in his/her semester average nor in his/her accumulative average unless he/she fulfills the requirements of that course. If one academic semester passes without changing the (IC) grade in the student's record due to not fulfilling the course, the (IC) grade is replaced by (F) which is calculated in his/her semester average and in his/her accumulative average.

The grade of In Process (IP) initially carries no grade value for research courses that require more than one semester. The student then receives (IP) grade in his academic record and it is not calculated in his semester average or in his accumulative average. If the requirement of that course is not finished within the proposed period, the Department Council which is responsible for that course may replace (IP) grade by (IC) grade.

The deprivation (DN) grade, resulted from more than 25% absence rate in a course, carries a “1” points and included in the accumulative average.

### Semester and Accumulative Average

Semester GPA (or GPA in short) is resulted by dividing the sum of the points obtained by the student in all courses he/she studied during any individual semester by the total number of credit hours of those courses.

Accumulative GPA (or AGPA) is resulted of dividing the sum of points obtained by the student in all the courses that he/she has studied during his study in all semesters by the number of units representing those courses.

The following conditions must be met for a student to be granted honors:

1. The student should not fail in any course taken at Majmaah University or any other university.
2. The student must fulfill the graduation requirements within the standard period for his/her program
3. The student must study all the assigned courses and should have completed the Dissertation / Term Project successfully.

### **Attendance**

Absences are counted from the first day of the semester. The student must regularly attend all lectures and practical lessons. The student will not be allowed to participate in the final examinations if his/her percentage of attendance is less than (75%) of the lectures and practical lessons allotted for the course.

The student who is deprived of attending the final examination will fail that course and have grade DN, unless he/she provides an excuse accepted by the College Council under the condition that he/she was not less than 50% of attendance.

### **Probation**

The student is required to maintain a AGPA of at least 4.0 out of 5.0. The student will receive an academic warning if his/her accumulative average is less than (2.00). Those who fail to maintain this AGPA will be placed on scholastic probation and are given two semesters in which they must improve their AGPA to at least 2.0. If this condition is not met and the student received three consecutive warnings (two semesters of probation), the student may then be dismissed from his/her study program.

### **Handling Prerequisites**

Under normal circumstances, all students are registered automatically through the university registration system, EduGate. Each student is automatically enrolled in all level courses he/she is allowed to register for. The system may allow the student to make changes to his/her registration under the condition that no violations to any of the prerequisites, no conflicts between courses timetables, and the student does not exceed the allowed number of credit load per semester. This process is handled automatically through the university's registration system without any manual interference.

The student is allowed to make changes to his/her schedule by either adding or dropping courses only for up to the end of the first week of study. Course withdrawals, however, are allowed before the end of the tenth week of study of the semester. A student is allowed to withdraw for only one course per semester under the condition that he/she does not withdraw for more than three courses during his/her full study plan. A student can also withdraw the whole semester, usually no later than the end of the twelfth week of study pending department head and vice-dean for academic affairs approvals.

### **Work in Lieu of Courses**

The program only grants credit(s) for the academic courses that are successfully completed. No credit is offered towards achieving life experience, Advanced Placement, dual enrollment, or military experience.

### **Visiting Students**

A visiting student is he who studies some courses in another university or a branch of the same university without transferring to it. The courses he studies are equated according to the following regulations:

- a. The student has to get the approval of the college in which he intends to study as a visiting student prior to admission.
- b. The college or the university in which he intends to study should be a recognized institution.

- c. The courses to be studied in another university should be equivalent to the requirements of graduation in his university.
- d. If the visiting student studies in one of the branches of the college he studies in, he will be treated in accordance with Article (47).
- e. The University Council determines the maximum percentage of credit hours to be considered for the external student.
- f. The courses equated for the visiting student are not counted within his CGPA. The courses are written on his academic record.
- g. Any other conditions set by the University Council.

### **The Operational Rule for Majmmah University**

A visiting student is the student who studies some courses in another university or a branch of the same university without transferring to it. The courses he studies are equated according to the following regulations: Firstly, any student from Majmaah University who wants to study as a visiting student:

1. Bring a prior permission from his college allowing him to study as a visiting student, determining the courses he would like to study. The college may condition that the student should attain a specific rate for the course equation. He will be given a letter from the Deanship of Admission and Registration to that effect.

2. The student should have an academic record with a (CGPA) for at least one semester in the university, before he applies as a visiting student.

3. The university or the college in which he intends to study should be a recognized institution.

4. The course the student intends to study in another university should be equivalent to one of the courses included as part of graduation requirements.

5. Taking into account (Article 42), the maximum total for the credit hours to be counted for a visiting student is 20% from the total graduation credit hours in Majmmah University.

6. Equated courses of the visiting student shall not be counted as part of the student's (CGPA). The courses shall, however, be registered in his academic record.

7. The student should inform the Deanship of Admissions and Registration the results he obtains within the first week from the beginning of the semester following his study as a visiting student. If he does not provide his results, he shall be considered absent (except summer courses) and he shall be treated in accordance with (the Article 15).

8. A visiting student shall be paid a monthly bonus if he deserves it through manual files after forwarding his results of the semester to the Deanship of Admission and Registration.

9. The maximum number of the semesters students are allowed to study as a visitors, are two semesters.

Secondly, any student from another university who wants to study in Majmmah university should:

1. Have an academic record with a (CGPA) of one semester at least from the university in which he had been admitted.

2. He should obtain a prior written approval from his university, permitting him to study as a visiting student in Majmmah University. In the letter he should mention the courses of Majmmah University he would like to study.

3. He should get the approval of the college in which he wishes to study as a visiting student.

4. The visiting student from another university would not be awarded a bonus from Majmmah University.

5. The courses the student takes are registered by the Deanship of Admission and Registration, taking into account all the regulation of registration.

6. At the end of his studies, the student shall be given a letter, showing the results of the courses.

Third, the procedures for studying as a visiting student in Almajma'ah University:

- a student needs to go to the department where the courses he would like to study are taught in order to know the description of courses and make certain they are offered in the next academic semester;

- a student applies to the department of admission in Deanship of Admission and Registration and he brings all the required documents and he must do that within the defined period of time;

- after obtaining the approval from Deanship of Admission and Registration as a visiting student according to the terms and conditions followed, then a student will be issued a student number and the courses will be added in the letter.

### **Graduation Requirements**

In order to earn the "Master of Science in Cyber Security and Digital Forensics" degree from College of Computer and Information Sciences at Majmaah University, the student must complete the following requirements:

- University requirements
- College requirements
- Professional electives
- Dissertation Requirements

### **Core Courses (15 credits)**

Students study five Core Courses (15 credits) for the MS in CSDF degree program. These courses are mandatory for students. Students would require to pass a comprehensive exam based on these course contents to earn their MS degree. Core courses focus on Cybersecurity and Digital Forensics' foundation, Laws, Policies, Ethics, Available Tools & Technology as well as some basic research practices and statistics. Students will require to **study the following five core courses.**

1. Cybersecurity Foundations ..... (3cr)
2. Digital Forensics Technology and Practices ..... (3cr)
3. Cybersecurity Technology and Management ..... (3cr)
4. Information Security Law, Policy, and Ethics..... (3cr)
5. Research Methods and Engineering Statistics .....(3cr)

### **Group A (6 credits):**

The MS in CSDF program will offer several courses in the Cybersecurity and related domains. Students will choose two courses from the Cybersecurity domain. Cybersecurity domain will primarily focus on Cybercrime & Response, Security Threats and Defences, Risk Management, and so on.

### **Cybersecurity Courses (Students choose two courses)**

1. Network and System Security .....(3cr)
2. Malware and Vulnerability Analysis .....(3cr)
3. Cryptography and Cryptanalysis .....(3cr)
4. Software Security .....(3cr)
5. Penetration Testing and Ethical Hacking .....(3cr)
6. Special Topics in Cybersecurity .....(3cr)

**Group B (6 credits):**

The MS in CSDF program will offer several courses in the Digital Forensics and related domains. Students will choose two courses from the Digital Forensics domain below.

**Digital Forensics Courses (Students choose two courses)**

1. Computer Forensics and Investigations ..... (3cr)
2. Advanced Computer Forensics .....(3cr)
3. Mobile and Network Forensics .....(3cr)
4. Malware Development and Countermeasure .....(3cr)
5. Forensics Management of Digital Evidence .....(3cr)
6. Digital Forensics Response and Analysis .....(3cr)
7. Special Topics in Digital Forensics ..... (3cr)

**Research Project (3 credits):**

College of Computer and Information Science (CCIS), *Majmaah University* program offers an innovative learning experience where students work on innovative projects. Student projects are mentored by CCIS faculty who guide the progress and ensure that in addition to learning it, students can do it.

The MS in CSDF program students will choose the graduate research project option. Students will conduct research under a supervisor and submit a graduate research paper. Student will need to complete a graduate research project (e.g. Development a InfoSec Tool, Conduct a comparison study using tools, etc.) worth three credit hours and deliver the final product. With the appropriate permission, Program Chair, students may substitute their graduate research project with relevant Capstone project or real- world industry project.

Projects are not only a great learning experience, but they also help in job interviews. By the time our students graduate, they can share with interviewers their participation in several successful projects which can help them get the job and be prepared to become innovators, entrepreneurs, and leaders of the future.