A translated version of the order of the Minister of Higher Education and Scientific Research of 1 November 2013, setting the study and examination regime applicable to the National School of Computer Sciences in view of obtaining the national diploma of engineer.

Order of the Minister of Higher Education and Scientific Research of [1] November 2013, setting the study and examination regime applicable to the National School of Computer Sciences in view of obtaining the national diploma of engineer.

The Minister of Higher Education and Scientific Research,

Having regard to the Constituent Law No. 2011-6 of 16 December 2011, on the provisional organisation of public authorities,

Considering the decree-law n° 84-13 of 18 September 1984, establishing the National School of Computer Sciences, ratified by the law n° 85-32 of 30 March 1985,

Having regard to Law No. 2008-19 of 25 February 2008, relating to higher education, as amended by Decree-Law No. 2011-31 of 26 April 2011,

Having regard to Law No. 2009-21 of 28 April 2009, laying down the general framework for the practical training of higher education students in administrations, companies or public or private establishments,

Having regard to Decree No. 73-516 of 30 October 1973, on the organisation of university life, together with the texts which have modified or completed it and in particular Decree No. 2002-2013 of 4 September 2002,

Having regard to Decree No. 92-1932 of 2 November 1992, establishing the authority competent to sign national scientific diplomas,

Having regard to Decree No. 95-2602 of 25 December 1995, laying down the general framework of the study regime and the conditions for obtaining the national engineering diploma, as amended and completed by Decree No. 2009-643 of 2 March 2009,

Having regard to Decree No. 2008-2716 of 4 August 2008, on the organisation of universities and higher education and research establishments and the rules governing their operation, as amended and supplemented by Decree No. 2011-683 of 9 June 2011,

In view of Decree No. 2013-1372 of 15 March 2013, appointing members of the government,

Having regard to the decree of the Minister of Higher Education of 12 November 1996, relating to the attribution of the higher mark in examination sessions,

Having regard to the decree of the Minister of Higher Education of 20 July 1998, fixing the regime of studies and examinations applicable to the National School of Computer Sciences in view of obtaining the national diploma of engineer, as modified by the decree of 9 June 2001,

On the proposal of the Scientific Council of the National School of Computer Science,

After deliberation of the council of the University of Manouba,

After authorisation by the University Council.

hereby decides :

Article 1 - The present decree sets the study and examination regime applicable to the National School of Computer Science in order to obtain the national diploma of computer engineer.

Art. 2 - The National School of Computer Science issues the national diploma of computer science engineer.

Chapter 1

The study regime

Art. 3 - Admission to the National School of Computer Science, with a view to preparing for and obtaining the national diploma of computer engineer, takes place in accordance with the provisions of Article 5 of Decree No. 95-2602 of 25 December 1995 referred to above.

Art. 4 - The duration of training at the National School of Computer Science is three years, leading to the award of the "National Diploma of Computer Science Engineer".

Art. 5 - The courses are distributed over the three years of study in accordance with article 10 of this decree.

Art. 6 - The first and second years of study each comprise thirty-six (36) weeks of teaching, including four (4) weeks of internship.

The third year of study consists of thirty-two (32) weeks of which sixteen (16) weeks are reserved for the completion of a final project.

Art. 7 - The teaching is given in the form of courses (C), integrated courses (CI), and supervised personal work.

The integrated courses comprise two thirds (2/3) of theoretical teaching and one third (1/3) of tutorials and/or practical work and/or supervised personal work.

Art. 8 - Studies are organised in compulsory and elective modules.

Elective modules may not be provided if the number of students having opted for these courses is deemed insufficient by the Scientific Council. The students who have chosen them are then called upon to review their choices among the modules that will be provided.

Complementary modules are planned to adapt to

advances in computer science and technology, and to allow more flexibility, openness and adaptation to the job market. The Scientific Council determines at the beginning of each academic year the complementary modules and the courses they include.

Art. 9 - Students who have successfully completed the first year of the course are allocated to the different courses within the departments before the start of the second year.

The distribution of students between the different courses is based on their wishes, their results and the capacity of each course.

However, a course of study can only be provided if the number of students requesting it is deemed sufficient by the Scientific Council.

The capacity of each course is determined by the Scientific Council at the beginning of each academic year.

Art. 10 - The modules, the form of the courses they comprise and their hourly volumes as well as the coefficients of the related tests are defined for each year of study in accordance with the tables below.

I- First year First semester (S1)

N°	Modules	Coefficients	Number of hours (CI)
TC. 1.01	English I	1.5	22.5 H
TC. 1.02	French I	1.5	22.5 H
TC. 1.03	Applied probability	3	45 H
TC. 1.04	Digital circuits	3	45 H
TC. 1.05	Analogue electronics	1.5	22.5 H
TC. 1.06	Algorithms of numerical analysis	3	45 H
TC. 1.07	Formal logic	3	45 H
TC. 1.08	Algorithms, data structures and C programming	6	90 H
TC. 1.09	Engineering mathematics	4.5	67.5 H
TC. 1.10	Economics and business management	3	45 H
	TOTAL	**30**	**450 H (CI)**

Second semester (S2)

N°	Modules	Coefficients	Number of hours (CI)
TC. 2.01	Language theory and compilation	3	45 H
TC. 2.02	Digital transmission	3	45 H
TC. 2.03	Introduction to operating systems and the Unix environment	4.5	67.5 H
TC. 2.04	Architecture & microprocessors	3	45 H
TC. 2.05	Web and multimedia programming	1.5	22.5 H
TC. 2.06	Graph algorithms and optimisation	3	45 H
TC. 2.07	Object-oriented programming	4.5	67.5 H
TC. 2.08	Introduction to financial systems and banking	3	45 H
TC. 2.09	Programming project	1.5	22.5 H
TC. 2.10	English II	1.5	22.5 H
TC. 2.11	French II	1.5	22.5 H
	TOTAL	**30**	**450 H (CI)**

II- Second year First semester (S3)

N°	Modules	Coefficients	Number of hours (CI)
TC. 3.01	Processor design methodology	3	45 H
TC. 3.02	Local networks	4.5	67.5 H
TC. 3.03	Operating systems and concurrent programming	4.5	67.5 H
TC. 3.04	Software Engineering I	3	45 H
TC. 3.05	Design and analysis of algorithms	3	45 H
TC. 3.06	Statistical principles and methods	3	45 H
TC. 3.07	Database design	3	45 H
TC. 3.08	Object-oriented analysis and design	3	45 H
TC. 3.09	English III	1.5	22.5 H
TC. 3.10	Communication I	1.5	22.5 H
	TOTAL	**30**	**450 H (CI)**

Second semester (S4)
A. Common Core

N°	Modules	Coefficients	Number of hours (CI)
TC4. 01	Computer networks	3	45 H
TC4. 02	Database management systems	3	45 H
TC4. 03	Operational research	3	45 H
TC4. 04	Software Engineering II	3	45 H
TC4. 05	Design and development projects	3	45 H
TC4. 06	Business creation and systems management	3	45 H
TC4. 07	Introduction to Embedded Systems	3	45 H
TC4. 08	English IV	1.5	22.5 H
TC4. 09	Communication II	1.5	22.5 H
TOTAL		**24**	**360 H (CI)**

B. Specific courses of study

FIELD: Engineering for finance IF		**Coefficients**	**No. of hours (CI)**
IF. 4.l	Business valuation and portfolio management	3	45H
IF. 4.2	Stochastic processes and financial applications	3	45H

FIELD: Networks and distributed systems RSR		**Coefficients**	**No. of hours (CI)**
SERP. 4.1	Real-time operating systems	3	45H
SERP. 4.2	Distributed systems and applications	3	45H

SUBJECT: Embedded systems and software SLE		**Coefficients**	**No. of hours (CI)**
SLE. 4.l	Real-time operating systems	3	45H
SLE. 4.2	Distributed systems and applications	3	45H

AREA: Intelligent Systems Engineering and Decision ISID		**Coefficients**	**No. of hours (CI)**
ISID. 4.l	Functional programming	3	45H
ISID. 4.2	Problem solving systems	3	45H

FIELD: Software Engineering and Information Systems ILSI		**Coefficients**	**No. of hours (CI)**
ILSI. 4.1	Functional programming	3	45H
ILSI. 4.2	Software architecture	3	45H

FIELD: Engineering for the image II		**Coefficients**	**No. of hours (CI)**
II. 4.1	Introduction to the image	3	45H
II. 4.2	Stochastic image modelling	3	45H

III - Third year First semester (S5)
A. Common Core

Choice of 2 of the following modules		**Coefficients**	**No. of hours (C)**
TC. 5.1	Computer security	2	30 H
TC. 5.2	Artificial intelligence	2	30 H
TC. 5.3	Additional module	2	30 H
Choice of 3 modules among the following			
TC. 5.4	Human rights	1	15 H
TC. 5.5	Project management	1	15 H
TC. 5.6	Targeted English	1	15 H
TC. 5.7	Additional module	1	15 H

B. Specific courses of study

FIELD: Engineering for Finance IF		Coefficients	No. of hours (C)
30-hour modules			
Choice of 6 modules among the following			
IF. 5.1	Monte Carlo methods and simulation of financial models	2	30 H
IF. 5.2	Partial differential equations for financial models	2	30 H
IF. 5.3	Financial markets	2	30 H
IF. 5.4	Bank management	2	30 H
IF. 5.5	Distributed systems and applications	2	30 H
IF. 5.6	Intelligent decision support systems	2	30 H
IF. 5.7	Supplementary module in mathematics for finance	2	30 H
IF. 5.8	Complementary module in finance	2	30 H
IF. 5.9	Complementary computer module	2	30 H
Choice of 2 of the following modules			
IF. 5.10	Risk modelling and dynamic financial risk management	2	30 H
IF. 5.11	Supplementary module in mathematics for finance	2	30 H
IF. 5.12	International Finance and Portfolio Management	2	30 H
IF. 5.13	Complementary module in finance	2	30 H
IF. 5.14	Parallel computing in finance	2	30 H
IF. 5.15	Complementary computer module	2	30 H
15-hour modules			
Compulsory modules			
IF. 5.16	Numerical optimisation methods in finance	1	15 H
IF. 5.17	Financial market simulation project	1	15 H (CI)
IF. 5.18	Project to develop communicating applications	1	15 H (CI)
Choice of 4 modules among the following			
IF. 5.19	Advanced inferential statistics	1	15 H
IF. 5.20	Time series	1	15 H
IF. 5.21	Advanced stochastic models and financial applications	1	15 H
IF. 5.22	Advanced methods of multivariate statistics	1	15 H
IF. 5.23	Credit risk	1	15 H
IF. 5.24	Accounting for financial instruments	1	15 H
IF. 5.25	Case studies (trading rooms, insurance, banks)	1	15 H
IF. 5.26	Quantitative Finance	1	15 H
IF. 5.27	Service Oriented Architectures SOA	1	15 H
IF. 5.28	Technology integration applications (Net, J2EE, ...)	1	15 H
IF. 5.29	Finance systems engineering	1	15 H
IF. 5.30	Security of financial systems	1	15 H
IF. 5.31	Supplementary module in mathematics for finance	1	15 H
IF. 5.32	Complementary module in finance	1	15 H
IF. 5.33	Complementary computer module	1	15 H

FIELD: Networks and Distributed Systems RSR		Coefficients	No. of hours (C)
30-hour modules			
Choice of 6 modules among the following			
SERP. 5.1	Protocols and architectures for multi-service networks	2	30 H
SERP. 5.2	Wireless and cellular networks	2	30 H
SERP. 5.3	Discrete event simulations	2	30 H
SERP. 5.4	Distributed Algorithms	2	30 H
SERP. 5.5	Distributed databases	2	30 H
SERP. 5.6	Middleware and building distributed applications	2	30 H
SERP. 5.7	Supplementary module 1	2	30 H
SERP. 5.8	Supplementary module 2	2	30 H
Choice of 2 of the following modules			
RSR.5.9	System safety and fault tolerance	2	30 H
RSR. 5.10	Modelling and performance evaluation	2	30 H
RSR. 5.11	Advanced data networks	2	30 H
RSR. 5.12	Network security	2	30 H
RSR. 5.13	Advanced architectures and parallel programming	2	30 H
RSR. 5.14	Supplementary module 3	2	30H
RSR. 5.15	Supplementary module 4	2	30H
15-hour modules			
Compulsory modules			
RSR. 5.16	Simulation project	1	15 H (CI)
RSR. 5.17	Distributed application development project	1	15 H (CI)
RSR. 5.18	Metaheuristics and network applications	1	15 H
Choice of 4 modules among the following			
RSR. 5.19	Network administration project	1	15 H (CI)
RSR. 5.20	Protocol engineering	1	15 H
RSR. 5.21	Network mobility	1	15 H
RSR. 5.22	Network administration	1	15 H
RSR. 5.23	Formal models of time and parallelism	1	15 H
RSR. 5.24	Home and building automation systems	1	15 H
RSR. 5.25	Human-machine interaction	1	15 H
RSR. 5.26	Cryptography	1	15 H
RSR. 5.27	Sensor networks	1	15 H
RSR. 5.28	Safety of embedded systems	1	15 H
RSR. 5.29	Metrology and characterisation of network traffic	1	15 H
RSR. 5.30	Peer to peer architectures and applications	1	15 H
RSR. 5.31	Grid computing	1	15 H
RSR. 5.32	Vehicular networks	1	15 H
RSR. 5.33	Scheduling	1	15 H
RSR. 5.34	Advanced networks and radio frequency project	1	15 H (CI)
RSR. 5.35	Supplementary module 1	1	15 H
RSR. 5.36	Supplementary module 2	1	15 H

SUBJECT: Embedded Systems and Software SLE		Coefficients	No. of hours (C)
30-hour modules			
Choice of 6 modules among the following			
SLE.5.1	Design and validation of real-time systems	2	30 H
SLE.5.2	Electronics for embedded systems	2	30 H
SLE.5.3	System integration	2	30 H
SLE.5.4	Microcontroller-based systems	2	30 H
SLE.5.5	Signal and image processing technologies	2	30 H
SLE.5.6	Robotics and soft computing	2	30 H
SLE.5.7	Supplementary module 1	2	30 H
SLE.5.8	Supplementary module 2	2	30 H
Choice of 2 of the following modules			
SLE. 5.9	Codesign	2	30 H
SLE. 5.10	Wireless networks	2	30 H
SLE. 5.11	Discrete event simulation	2	30 H
SLE. 5.12	Advanced architectures and parallel programming	2	30 H
SLE. 5.13	Supplementary module 3	2	30 H
SLE. 5.14	Supplementary module 4	2	30 H
15-hour modules			
Compulsory modules			
SLE. 5.15	Practical system project	1	15 H (CI)
SLE. 5.16	Integration project	1	15 H (CI)
SLE. 5.17	Microcontroller project	1	15 H (CI)
Choice of 4 modules among the following			
SLE. 5.18	Formal models of time and parallelism	1	15 H
SLE. 5.19	Real-time systems modelling	1	15 H
SLE. 5.20	Parallel programming	1	15 H
SLE. 5.21	Programme optimisation	1	15 H
SLE.5.22	Systems on chips	1	15 H
SLE. 5.23	Digital process control	1	15 H
SLE. 5.24	Servicing project	1	15 H (CI)
SLE. 5.25	Emotional computing	1	15 H
SLE. 5.26	Sensor networks	1	15 H
SLE. 5.27	Safety of embedded systems	1	15 H
SLE. 5.28	Fault tolerance	1	15 H
SLE. 5.29	Human-machine interaction	1	15 H
SLE. 5.30	Industrial expertise	1	15 H
SLE. 5.31	Cryptography	1	15 H
SLE. 5.32	Communication bus	1	15 H
SLE. 5.33	Computer-aided design	1	15 H
SLE. 5.34	Vehicular networks	1	15 H
SLE. 5.35	Instruments and measurement	1	15 H
SLE. 5.36	Supplementary module 1	1	15 H
SLE. 5.37	Supplementary module 2	1	15 H

AREA: Intelligent Systems Engineering and Decision ISID		Coefficients	No. of hours (C)
30-hour modules			
Choice of 6 modules among the following			
ISID. 5.1	Multi-agent systems	2	30 H
ISID. 5.2	Reasoning	2	30 H
ISID. 5.3	Combinatorial optimization: approximate methods	2	30 H
ISID. 5.4	Non-classical logic	2	30 H
ISID. 5.5	Interactive decision support systems	2	30 H
ISID. 5.6	Learning	2	30 H
ISID. 5.7	Supplementary module 1	2	30 H
ISID. 5.8	Supplementary module 2	2	30 H
Choice of 2 of the following modules			
ISID. 5.9	Verification of complex systems	2	30 H
ISID. 5.10	Distributed computing	2	30 H
ISID. 5.11	Pattern recognition	2	30 H
ISID. 5.12	Robotics and soft computing	2	30 H
ISID. 5.13	Data mining	2	30 H
ISID. 5.14	Diagnostic support systems	2	30 H
ISID. 5.15	Supplementary module 3	2	30 H
ISID. 5.16	Supplementary module 4	2	30 H
15-hour modules			
Compulsory modules			
ISID. 5.17	Planning	1	15 H
ISID. 5.18	Knowledge Management	1	15 H
ISID. 5.19	ISID project	1	15H (CI)
Choice of 4 modules among the following			
ISID. 5.20	Knowledge acquisition	1	15 H
ISID. 5.21	Information retrieval systems	1	15 H
ISID. 5.22	Automatic natural language processing	1	15 H
ISID. 5.23	Semantic Web	1	15 H
ISID. 5.24	Service & Web Oriented Development	1	15 H
ISID. 5.25	Data/Knowledge grids	1	15 H
ISID. 5.26	Datawarehouse	1	15 H
ISID. 5.27	Automatic speech recognition	1	15 H
ISID. 5.28	Scheduling	1	15 H
ISID. 5.29	Emotional computing	1	15 H
ISID. 5.30	Human-machine interaction	1	15 H
ISID. 5.31	Cryptography	1	15 H
ISID. 5.32	Supplementary module 1	1	15 H
ISID. 5.33	Supplementary module 2	1	15 H

FIELD: Software Engineering and Information Systems ILSI		Coefficients	No. of hours (C)
30-hour modules			
Choice of 6 modules among the following			
ILSI. 5.1	Service-oriented engineering	2	30 H
ILSI. 5.2	Software reuse	2	30 H
ILSI. 5.3	Software re-engineering	2	30 H
ILSI. 5.4	Urbanisation of information systems	2	30 H
ILSI. 5.5	Model Driven Engineering	2	30 H
ILSI. 5.6	Verification of complex systems	2	30 H
ILSI. 5.7	Supplementary module 1	2	30 H
ILSI. 5.8	Supplementary module 2	2	30 H
Choice of 2 of the following modules			
ILSI. 5.9	Human-machine interaction	2	30 H
ILSI. 5.10	Quality management and software metrics	2	30 H
ILSI. 5.11	Component engineering	2	30 H
ILSI. 5.12	Interactive decision support systems	2	30 H
ILSI. 5.13	Datawarehouse	2	30 H
ILSI. 5.14	Supplementary module 3	2	30 H
ILSI. 5.15	Supplementary module 4	2	30 H
15-hour modules			
Compulsory modules			
ILSI. 5.16	Software Architecture Project	1	15 H (CI)
ILSI. 5.17	Distributed databases	1	15 H
ILSI. 5.18	Security of information systems	1	15 H
Choice of 4 modules among the following			
ILSI. 5.19	Ubiquitous computing	1	15 H
ILSI. 5.20	Game design	1	15 H
ILSI. 5.21	Software interoperability	1	15 H
ILSI. 5.22	Operational reliability and fault tolerance	1	15 H
ILSI. 5.23	Software process modelling (Worktlow)	1	15 H
ILSI. 5.24	Emotional computing	1	15 H
ILSI. 5.25	Supplementary module 1	1	15 H
ILSI. 5.26	Supplementary module 2	1	15 H

FIELD: Engineering for the image II			
30-hour modules			
Choice of 6 modules among the following			
II. 5.1	Image processing and analysis	2	30 H
II. 5.2	Imaging from 1D to 4D	2	30 H
II. 5.3	Image reconstruction	2	30 H
II. 5.4	Pattern recognition	2	30 H
II. 5.5	Geometric analysis of shapes	2	30 H
II. 5.6	Statistical pattern recognition	2	30 H
II. 5.7	Supplementary module 1	2	30 H
II. 5.8	Supplementary module 2	2	30 H
II. 5.9	Supplementary module 3	2	30 H
II. 5.10	Supplementary module 4	2	30 H
Choice of 2 of the following modules			
II. 5.11	Indexing by content	2	30 H
II. 5.12	Active contours and contour lines	2	30 H
II. 5.13	Supplementary module 5	2	30 H
II. 5.14	Supplementary module 6	2	30 H
II. 5.15	Supplementary module 7	2	30 H
II. 5.16	Supplementary module 8	2	30 H
15-hour modules			
Compulsory modules			
II. 5.17	Radio frequency workshop	1	15 H (CI)
II. 5.18	3D-4D workshop	1	15 H (CI)
II. 5.19	3D Vision	1	15 H
Choice of 4 modules among the following			
II. 5.20	Invariant calculation	1	15 H
II. 5.21	Coding and compression	1	15 H
II. 5.22	Classification	1	15 H
II. 5.23	Representation and modelling of 3D images	1	15 H
II. 5.24	Supplementary module 1	1	15 H (CI)
II. 5.25	Supplementary module 2	1	15 H
II. 5.26	Supplementary module 3	1	15 H
II. 5.27	Supplementary module 4	1	15 H

Art. 11 - The training provided for in article 10 of the present decree is completed by compulsory summer internships in the first and second years, as well as by an end-of-studies project in the second semester of the third year equivalent to 450 hours of practical work (TP) and having a coefficient of thirty (30).

The end-of-studies project is a professional project related to the course of study and is an engineering project supervised by a teacher.

The validation of the internships and the defence of the end-of-studies project are carried out in accordance with the provisions of articles 20 and 21 of this decree.

Art. 12 - Attendance at all lessons and activities provided for in the study plan is compulsory.

When absences in a module exceed 20% of the time allocated to it by the study plan, the student concerned is not allowed to take the related tests in the main session. However, the total number of absences may not exceed 10% of the total number of hours in a semester, in which case the student concerned will not be allowed to take all the tests in the main session of the semester concerned.

Art. 13 - The second and/or third year courses may be taught abroad within the framework of agreements concluded between the National School of Computer Science and higher education institutions providing the speciality concerned. Similarly, internships or the final year project may be carried out abroad within the framework of internship agreements. The agreements concluded are subject to approval by the board of the university concerned.

Courses taken abroad are evaluated by the host institution. The results of this evaluation are included in the student's results.

CHAPTER II

The examination regime

Art. 14 - The acquisition of knowledge by the students is evaluated by a possible system of continuous assessment and by a final examination organised in two sessions: a main session and a make-up session, the dates of which are fixed at the beginning of the academic year by the director of the institution, after advice from the scientific council.

The examinations for the main session and the make-up session are organised in the form of written tests, the duration of which is fixed at the beginning of each academic year by the director of the institution after consulting the scientific council.

Failure to attend any of the final examination sessions will result in a mark of zero (0).

Continuous assessment is compulsory only for modules with a time volume exceeding 30 hours per semester.

Continuous assessment, where applicable, includes, depending on the form of teaching specific to each module, written and/or oral tests and, where appropriate, practical tests.

Art. 15 - For each module, an average is calculated from the marks obtained in the different tests.

The weightings attributed to these tests are fixed according to the form of teaching specific to each module as follows

- for modules without continuous assessment: 100% of the final exam mark.

- for modules with continuous assessment: 65% of the final exam mark + 35% of the continuous assessment mark in case the continuous assessment is based on theoretical evaluations.

Or

50% of the final exam mark + 50% of the continuous assessment mark if the continuous assessment is based on practical work.

Art. 16 - The class council declares admitted to the next year, in the main session or in the make-up session, the student who has satisfied the following two conditions:

1/ obtaining an overall average of 10/20 or more.

2/ obtaining an average of 8/20 or more in each of the modules as defined in the study plan.

The overall average is obtained from the averages of the modules affected by their respective coefficients set out in articles 10 and 11 of this decree.

The class council is composed by the teachers who teach modules to the class concerned by the deliberations.

Art. 17 - The student who has not been admitted to the main session is allowed to take the final examination of the modules in which he/she has not obtained the average of 10/20. Continuous assessment does not give rise to a make-up session.

At the end of the make-up session, the average of each module as well as the general annual average are calculated under the same conditions as those laid down in articles 15 and 16 of this decree, taking into account the best of the final examination marks obtained in the main session and the make-up session.

Art. 18 - A student who, after the make-up session, has obtained an overall average equal to or higher than 10/20 and an average lower than 8/20 in one or more modules may be admitted to the next year with credit.

Credit is awarded for the module(s) with an average of less than 8/20. The accumulation of credits from one year to the next is possible but must not exceed three (3) modules for the passage to the second year and four (4) modules for the passage to the third year, not including internships.

The average of a credit module is the maximum of the following three scores:

- the new score for the re-take exam,

- the new average calculated in accordance with the provisions of Article 15 of this Order,

- the old average,

A credit module is considered validated when its average is greater than or equal to 8/20.

The validation of credit modules is done under the same conditions as the make-up session, except for the final project which must be repeated in full.

Art. 19 - Repeating a year is allowed only once during the schooling.

In the event of repetition, the student retains the benefit of the modules whose average is equal to or higher than 10/20.

Art. 20 - Each of the training courses provided for in article 11 of the present decree is the subject of a report drawn up by the student who has followed it.

The internship report is defended before a jury, the composition of which is determined by the director of the school, after consulting the scientific council.

Any internship declared inconclusive by the jury requires a replacement internship carried out and evaluated under the same conditions.

Art. 21 - The final project provided for in Article 11 of this decree shall be defended before a jury composed of at least three (3) teachers and designated by the school director.

The director of the school may also invite any person of recognised competence in the field covered by the final project to sit on the jury.

Only students who have passed the third year exams and obtained validation of the modules for credit are allowed to support the final year project.

Art. 22 - The national diploma of engineers in computer science of the national school of computer science is delivered to the students of the third year having satisfied the following conditions:

1/ to have obtained the validation of the modules subject to credit,

2/ have passed the third year examinations,

3/ to have obtained the validation of all the required courses,

4/ to have obtained a mark of 10/20 or higher in the final project.

Art. 23 - Students who have not obtained the validation of their internships or who have not successfully defended their final project may benefit from an extension of their studies for up to six (6) months.

Art. 24 - A classification of the holders of the national diploma in computer engineering of each year is established.

This ranking is carried out on the basis of criteria defined by the school's scientific council and made known to students at the beginning of the academic year.

Art. 25 - All previous provisions contrary to the present decree, and in particular the decree of 20 July 1998 mentioned above, are repealed.

Art. 26 - The present decree shall be published in the Official Gazette of the Tunisian Republic.

Tunis, [1] November 2013.

The Minister of Higher Education and Scientific Research

Moncef Ben Salem

Viewed by

The Head of Government

Ali Larayedh