Philadelphia University

Faculty of Information Technology

Department of Web Engineering

Undergraduate Handbook

2018/2019

Content

I. Introduction

This handbook contains important general information for students undertaking Undergraduate Degree program in the Department of Web Engineering. This handbook is also available on the web.

Your degree program is subject to regulations contained in the **University Students Guide**. This departmental handbook interprets the regulations and your tutors may give advice, but the University Students Guide defines the regulations.

II. Mission Statement

The mission of The Web Engineering Department is derived from the overall IT Faculty and University mission. The Department of Web Engineering at Philadelphia University was founded in the year 2015 as one of the first Web Engineering Departments offering honor degree in Web Engineering in Jordan. This undergraduate program addresses the growing need for professionals in this sophisticated field.

The mission of the Web Engineering Department at Philadelphia University is to provide outstanding education to its undergraduate students in accordance with the principles of the University mission, to advance scholarship in key domains of web engineering, and to engage in activities that improve the welfare of society. The Department aims to maintain an environment that promotes innovative thinking; values mutual respect and diversity; encourages and supports scholarship; instills ethical behavior; and engenders life-long learning

The strategies of the Department are set to meet the demands of a rapidly evolving world, and to meet the needs of a developing job market in Information Technology. Graduates of this program will work with the web of software, with special attention devoted to large and critical systems. This program addresses both analytic and practical skills required by students to develop robust and efficient web software systems for manufacturing, industrial, government, and business applications. They will have individual and team hands-on experience with timely, cost-effective and state-of-the-art processes, methods and tools.
The curriculum of this program aims to prepare students for careers in web engineering, web project management, and web development and integration. Web engineering comprises the core principles consistent in web construction and maintenance. This mainly covers the fundamental software processes and life-cycles, mathematical foundations of web engineering, requirements analysis, web engineering methodologies and standard notations, principles of web architecture and reuse, web quality frameworks and validation, web development, and maintenance environments and tools.

III. Important Dates

1. Registration:

Admission criteria are issued by the Higher Education Council, which governs all private universities which is getting a 60% or higher in the Jordan's secondary school examination, the Tawjihi. First year students must attend the University and they will be given a full timetable for the introductory courses. Departmental and University registration must be completed at the time specified in the introductory timetable. Returning students must also register in the times specified during introductory week.

2. Timetable

Lectures timetable is published separately from this book. Whilst every attempt is made to timetable reasonable combinations of course units (modules), various constraints make some combinations and outside options impossible. If you have a timetable problem, please consult your personal tutor in the first instance.

IV. Scope and Input Resources

1. Aims and Objectives

Aims: The Web Engineering program at Philadelphia University aims to:

- prepare students for careers in modern enterprise computing by equipping them with knowledge and skills in web application programming
- enable students to design and implement solutions by providing them with practical experience of a wide range of industry standard, leading-edge web development tools
- enable students to adapt to future developments in web-based computing by providing them with a solid grounding in its underlying concepts and principles
- enable students to develop particular expertise in a chosen related area of computing
- develop the students' ability to undertake research by providing appropriate resources and guidance in their use
- develop the students' ability to make an effective contribution to team-based activity
- encourage students to adopt an investigative approach and develop autonomous study skills in order to assist their continuing professional development.

Objectives (Learning Outcomes). Learning outcomes describe what you should know and be able to do if you make full use of the opportunities for learning that we provide. All these skills are described in the following areas (A, B, C, D). In the individual module syllabi, the categories of learning outcomes (A, B, C, D) and the individual learning outcomes appropriate to the module are identified.

A: Knowledge and understanding

A1) A comprehensive understanding of the relevant topics of Web Engineering including, but not limited to, web project engineering life cycle, risk analysis, web services, cloud computing, eCommerce, eGovernment, and the Semantic Web.
A2) A critical awareness of current problems and/or new insights most of which is at, or informed by, the forefront of Web Engineering.
A3) Knowledge and understanding of web technology and systems at an advanced level.

B: Intellectual and cognitive skills

B1) Ability to apply appropriate engineering analysis methods for solving complex problems in web engineering and to assess their limitations.
B2) Ability to use fundamental knowledge to investigate new and emerging web technologies.
B3) Ability to apply design processes and methodologies and the ability to apply and adapt them in unfamiliar situations.
B4) Apply software engineering principles to the design of secure and reliable web systems.

C: Practical skills

C1) Use web engineering tools and components to construct and implement web based systems.
C2) Identify and evaluate a wide range of web engineering tools and components.
C3) A thorough understanding of current practice and its limitations, and some appreciation of likely new developments.
C4) Ability to apply engineering techniques taking account of a range of commercial and industrial constraints
C5) Ability to generate an innovative design for products, systems, components or processes to fulfil new needs.
C6) Ability to evaluate and use user-oriented Web systems.
C7) Ability to collect and analyze research data and to use appropriate engineering analysis tools in tackling unfamiliar problems, such as those with uncertain or incomplete data or specifications, by the appropriate innovation, use or adaptation of engineering analytical methods.

D: Transferable skills

D1) Awareness of the need for a high level of professional and ethical conduct in engineering.

D2) Awareness that Web engineers need to take account of the commercial and social contexts in which they operate.
D3) Knowledge and understanding of management and business practices, their limitations, and how these may be applied in the context of Web Engineering.
D4) Awareness of relevant regulatory requirements governing engineering activities in the context of Web Engineering.
D5) Awareness of and ability to make general evaluations of risk issues in the context of Web Engineering, including health and safety, environmental and commercial risk.
D6) Understanding of different roles within an engineering team and the ability to exercise initiative and personal responsibility, which may be as a team member or leader.
D7) Communicate their work to technical and non-technical audiences.

In order to provide students with the "lifelong learning" attitude, the teaching method is essentially based on self-learning (3 hours in class rooms and 6 hours out of class rooms: coursework, practical works, workshops, seminars, etc.)

2. Staff

A. Academic Staff

- **Qualifications**

The academic staff members are divided into two categories: full-time and part-time. The number of full-time staff members is 7, while the number of part-time staff depends upon the number of students and the needs of the Department.
The academic staff members, who are between 27 and 59 years of age, have relatively adequate experience ranging from 1 year to more than 30 years.
Six academic staff members at the Basic Sciences Department / Faculty of Science assist in teaching the Mathematics and Discrete Structures course units.

- **Specializations**

Full-time as well as part-time teaching staff members have various specializations that can be divided into four categories (Web, Communication and Interaction, Practice, Theory). At present, there are six research teams at the Faculty of IT and young staff members belong to these teams.

B. Non-Academic Staff

Besides the academic staff, the Department has 3 other full time members hold a B.Sc. degree in Computer Science. Those staff members have 3 to 5 years working experience and some of them have been appointed from Philadelphia University graduates who hold bachelor degrees with Grade "Excellent" or "Very Good".
All of the non-academic staff members are qualified as laboratory tutors and assist lecturers in the laboratory hours. In addition, some of them are responsible for maintenance of computer hardware and software in the laboratories.

3. Departmental Learning Resources

- **Code of Practice for Student Computer Usage**

At registration, you will be required to assent to the following departmental code of behavior, which relates to the responsible use of Computer equipment. Misuse of the facilities is regarded as serious disciplinary offences.
This code of practice is supplementary to University regulations concerning the use of computing equipment to which you are required to assent at Registration.

1. Every student is allocated one PC in every laboratory session. But for UNIX laboratory, you have been allocated one or more usernames for your own personal use: you must not use other usernames or permit other people to use your username. You must not use computers to which you have not been granted access, or attempt to access information to which you have not been granted access.
2. You must not deliberately hinder or annoy other computer users.
3. You must not use machines belonging to the Department for commercial purposes without the prior written permission of the Head of Department. You must not sell the results of any work

you do using Departmental facilities without the prior written permission of the Head of Department.

4. You must not write or knowingly store, on machines belonging to the Department, software that, if executed, could hinder or annoy other users, except with the prior written permission of the Head of Department.
5. You must not make an unauthorized copy, in any form, of copyright software or data.
6. You must not store personal information, except in a manner permitted by the Data Protection.
7. You must follow all rules, regulations and guidelines imposed by the Faculty of IT and the University in addition to the Department's Code of Practice.

- **Explanatory Notes**

The following notes indicate ways in which the Code of Practice applies to undergraduates for use of computers. It is not intended to be a complete list of possible abuses of the equipment. Each note refers to the corresponding paragraph above.

1. Undergraduate students are not normally granted access to the computers in the network, or to other students' files. You should not attempt to use another student's account even if they have not set a password. Of course, it is still important to set a password for your own privacy and security.
2. This will be interpreted very broadly. It includes
   - Tampering with another user's files.
   - Tampering with another user's screen.
   - Setting up processes which persist after you log out and annoy subsequent users of the machine.
   - Broadcasting of offensive messages.
   - Display or storage of offensive pictures.
   - Abuse of the mail system.
   - Occupying a machine to play games while other students need it to do their laboratory work.
3. Clearly, the Head of Department would have to be convinced that any such use of the machines would not conflict with their primary purpose.
4. Note carefully that this means you are not allowed to write or introduce a virus program, even if it is never executed.
5. Note that this does not prevent your taking copies of your laboratory work home, or making copies of non-copyright material, but does prevent your taking random pieces of software away on a floppy. You should assume that all material is copyright unless it specifically states otherwise. If in doubt, ask.
6. Personal information includes names, addresses, mailing lists, etc. You should contact the Data Protection Officer, Mr. Tarek Hassan, if you need to store such information.
7. In fact, you agreed to abide by the University and Faculty rules when you registered.
   Please direct queries concerning the code of practice to Department Chair.

- **Support for Computer Equipment**

Students are encouraged to own their own machines. Please note, however, that you are NOT REQUIRED to own your own computer. The Department has excellent facilities and undergraduate students are allowed to use the facilities provided in the buildings of the Faculty of Information Technology and the Faculty of Science. Whenever the buildings are open between 08 AM and 07 PM, access is also allowed in this range of time, from Sunday to Thursday during term.

- **Learning Resource Center**

Photocopy facilities are available in the Learning Resource Center, room 103, Tel. 2453. Reference copies of textbooks are available for consultation. Copies of previous weeks' tutorial solutions are also available. The resource center holds non-loan copies of undergraduate textbooks. Lending copies of textbooks are available in the University Library.

- **Photocopying**

Out of the library, photocopy may be done at different Bookshops, on an affordable cost.

- **Departmental Computer Club**

This is organized and run by students. It arranges various activities from time to time. See the notice boards in the Faculty.

- **Administrative Infrastructure**

It is composed of six offices (Dean, 1 Advisory service, Dean Secretary, and Department's Chair, Department Secretary, and Meeting Room).

- **Academic Infrastructure**

It is composed of

- 16 Department classrooms plus some other classrooms shared with other faculties and one lecture theatre equipped with support facilities: computer, data show, overhead projector.
- 3 laboratories (each contains 20 to 25 PCs or Monitors and 1 to 2 printers): Windows NT Laboratories, Internet Laboratories. The department also shares some other laboratories with other departments.
- 19 staff offices where each staff member is supplied with a PC.
- 1 room for staff meeting
- 1 office for the student's guidance and examination committee.

- **Lecture Support Facilities**

In the Department, there are fixed 9 data shows and 9 PC's used to support modules and seminars presentations.

- **University Computer Centre**

This center provides the Department with training and maintenance facilities.

- **Networking Facilities**

Ethernet*:* The PCs in each laboratory are connected to an Ethernet platform 10/100 Mbps.
Intranet: All computing facilities of the University are connected to a Gigabit Intranet backbone.
Internet: The University is connected to the Internet by 2 Mbps lines.

- **Type and Level of Access**

For communication, computing, or information searching, the Department provides free access to networking facilities at any time for the staff and the students.

- **Library Infrastructure**

This structure includes the University Main Library, which it provides students and staff members with the required recent text and references books, journals, and CD ROMs. According to its collaboration and co-ordination program, it has relations with more than 120 universities and scientific organizations. It opens from 08 AM to 07 PM. It includes:

- ***Conventional Library,*** which contains books and journals. The books room contains more than 1860 different English titles in computing, where more than 12% are edited in years 2008 - 2011. The room of journals contains 30 computing journals that are useful for research and teaching.

- ***Electronic Library,*** which contains CD ROMs for the taught programming languages and module support tools. It is connected to approximately 800 universities electronic libraries via the World University Library that is endorsed by the United Nation University. The World University Library has four databases that contain more than 3300 periodicals available online. The online resources in the electronic library include sites that list more than 40000 online books and access to online libraries and encyclopedias and other databases on the Internet.

- ***Internet Access Service,*** available in a room containing more than 20 PCs.

- **Bookshops:** contain books, exercises with solutions, solutions to previous examinations and so on.

- **Extracurricular Activities**
  The University provides some entertainment for the students to enrich their talents in their free time. This includes

  - **A Deanship of Student Affairs** that organizes the social, cultural, and sport activities for the students in the University. It has also an alumnae office that keeps track of the graduate's information and news.
  - Several spaces for different sports.
  - Several spaces for cultural activities.
  - Several common rooms for meetings, snacks, and cafeterias.
  - Three Internet cafes each one containing 11 PCs.
  - One Students Club.

V. Student Support and Guidance

1. Assistant Dean Office

The Assistant Dean Office (Room IT 604) is mainly for students advisory services. It deals also with all routine undergraduate enquiries. Problems, which cannot be dealt with by the Assistant Dean, will be referred to an appropriate person in the Department or University.

2. Academic Guidance

All new students should have academic (personal) tutors. The new students are grouped into 20 – 30 students groups and each group is assigned to an academic staff member who is their academic tutor. The students remain with the same tutor till their graduation. The tutor deals with all routine undergraduate inquiries, advises for academic registration at the beginning of each semester, and any other raised problems. However, problems, which cannot be dealt with by the tutor, will be referred to the head of the Department, the Dean of the Faculty, or to an appropriate member of academic staff. The academic guidance is available on specified dates in the terms, and any advisory service offered by the Assistant Dean is available daily to all students in the Department of Web Engineering (including both Full- and Part-time students).
Time: 11:00 AM to 07:00 PM Sunday to Thursday during term, Venue: Room IT 604 (for all students)

The advisory service offers advice on departmental and University matters and helps with anything that concerns you, whether in your studies, in the Department, in the University or in your life outside the university. Each of the staff in these offices is available with knowledge of the Department and University and who is willing to listen and help with whatever you bring. Note that

- All visits to the advisory service offices are strictly confidential.
- If you have difficulties with material on particular course units you should normally first approach your tutors (or lecturers/project supervisors). You may also consult your tutors on matters that are more general but you can equally well call in at the Assistant Dean Offices.
- If you have health problems, you are welcome to consult an advisor in the Department but may prefer to go directly to your doctor or to the University Clinic.

Feel free to make use of these services at any time on any matter.

3. Students Affair Deanship

Confidential, individual counseling on any matter affecting personal well-being or effectiveness is available at the Philadelphia University Students Affair Deanship. The Deanship sees well over a hundred students a year and gives expert advice on problems such as low motivation, personal decision making, relationships, and anxiety and family difficulties. People there, are willing to help in finding fresh ways of coping with the emotional and personal aspects of problems and seeks to do so in a collaborative,

straightforward and empowering way with the individual concerned. Advice is available concerning referral to other services, helping others and dealing with common student problems such as exam anxiety.

The Deanship is open from 8.00 AM to 4.00 PM, from Sunday to Thursday throughout the year and appointments can be made by calling into the office of the Dean of Students affairs. All inquiries will be treated confidentially.

4. Tutoring Arrangements

Some of your course units will have tutorials, where you can discuss topics on a course unit and run through exercises. Usually, the lecturer of the course unit runs the tutorial. There will be an opportunity for you to ask questions on matters you do not understand.

As you have a personal tutor from the beginning of your University life, your tutor is here to help you in your way through University life. He/she will watch your progress and offer help and advice wherever necessary. If you get into difficulties, you should contact your personal tutor or visit the Assistant Dean at the earliest possible opportunity. Do not let things slide until it is difficult to retrieve the situation, especially if you are getting behind with your work. Your personal tutor will also advise on your choice of course units, on departmental or University procedures and will provide references for jobs and other purposes.

Course lecturers are always available to discuss questions or problems with the course unit material. Each lecturer fixes at least six office hours on his timetable, which is fixed on his office door. You can call at these hours. For any reason, if these lecturers could not see you at these office hours, they may arrange an appointment at another time. It is important that any matter that affects your ability to work is notified to the Department - through your personal tutor, through the Assistant Dean or otherwise. The following are examples of matters that may affect your work: illness, personal or family difficulties (including illness in the family) or financial problems. In assessing your performance, the Department has a policy of trying to compensate for difficulties you have encountered whilst studying. We can only do this if we are notified of difficulties and have some idea of their extent.

5. Student Progress

Work and Attendance. The University regulations governing the Work and Attendance of students are given in the Student Guide 2014/2015. Full attendance is required at all lectures, laboratories, and any tutorials, which may be scheduled. Completed laboratory work should be handed in on time. Attendance at laboratories and at many lectures is monitored and attendance registers kept. Please note that the expectation is that students will be required to undertake approximately thirty six hours per week of study i.e. an average of two hours private study will be required for every scheduled hour of lectures, laboratories etc. and some students may require much more time than this. ***Being a student is a full time occupation!*** Absence for holidays is not permitted in term-time. The experience of the Department confirms that lack of attendance leads to study problems and any student with problems should consult his/her subject tutors or personal tutor. In addition, failure to attend can result ultimately in refusal by the University to allow a student to sit in the degree examinations. The duty of the lecturer is to keep continuous review of the work and attendance of the students with whom he is concerned. If the rate of student absences, in a course unit, is greater than 15% (or 20% for student representing the University in sportive or cultural activities) of the completely accredited hours and the student has no acceptable justification, then this student is excluded from that course unit. If the Dean of the faculty accepts the justifications of absence, then this student is mentioned as ***withdrawn*** without refunding the registration fees. A formal process is defined to tackle the problem of any student whose work and attendance appear unsatisfactory. Direct approaches by lecturer to solve the problem are as follows: He may choose to issue an "informal" warning, which has a precisely defined format and permits recovery of the situation. If this is unsatisfactory, a "formal" warning is issued. This is again of a precisely defined format. Failure to recover the situation at this stage leads to an exclusion from the course. A copy of this correspondence is held in a student's file.

6. Interruption of Degree Program

Any interruption (taking at most 2 years) of your degree program requires special permission from Faculty. Regulations state that a B.Sc. degree is a continuous 4-year period of study. Permission will only be granted if satisfactory reasons are given. A written case with supporting evidence must be presented to Faculty. Reasons might include prolonged illness. Consult your tutor for advice.

7. Transfer between Departments

- If you are contemplating any change of Faculty or Department, consult your primary tutor as soon as possible.
- You can change your Department by filling a special form at the beginning of the semester. It is only required that the Tawjihi average imposed in the new faculty or department must be less than or equal to your Tawjihi average. A specialized committee will decide what courses will be retained from your actual Department.

8. Withdrawal from Modules

If you are contemplating withdrawing from a module, please discuss the situation with your personal tutor at the earliest opportunity.

- You can withdraw a module at most during the thirteenth week of the first or second term, and at most during the seventh week of the summer term.
- The minimal number of modules (which is 9) required in each term should be followed.

VI. Organization of Teaching

An individual course of lectures is known as a "**course unit**" or sometimes as a "**module**".
The curriculum contains modules that are from University Requirements, Faculty Requirements, and Department Requirements. Each module has 3 credit hours per week. However, some modules are supported by tutorials and some continuous assessment, such as seminars or laboratory work, usually amounting to 1 hour per week. When you register for course units, you should follow the academic guidance plan that the Department arranges for you. In fact, you can register on any module only if you have taken its prerequisite(s) with the exception that you can register on the module and its prerequisite only if you are in the graduation semester.
In each semester, you can register for at least 12 credit hours and at most 18 credit hours, except for the semester in which you are expected to graduate when you can register for 21 hours. The complete four years academic guidance plan is listed in **Appendix A** of this Handbook. For more information about module numbering and outline module descriptions, see **Appendix B** of this Handbook.

In the **First Year**, you are encouraged to take 18 credit hours in each semester (first and second, the summer term is not taken into account). The fourth digit of each course unit code (see **Appendix B**) tells you the year in which the course is offered. During each 16 weeks semester, students will normally attend 6 modules. Thus, each teaching week contains 18 hours or more of scheduled work. In addition, each scheduled hour typically requires two extra hours of unscheduled work (e.g. writing up lecture notes, preparing for a tutorial, finishing off a laboratory exercise etc.). The selection of a University elective module (one module) depends upon your choice. **Five** of the 12 modules of the first year are from the University requirements, **two** from the Faculty requirements, **three** from the supportive requirements, and **two** from the Department requirements.

In the **Second Year,** the number and size of modules is similar to that of the first year. **Two** of the 12 modules of the second year are from the University requirements, **three** from the Faculty requirements, and **seven** from the Department requirements.

Meanwhile, in the **Third Year,** you should take six modules in the first semester and five modules in the second semester. **Eight** modules are from the compulsory Department Requirements, **one** module from the University requirements and **two** modules form the Faculty requirements. One of the compulsory modules is the **Practical Training module**, which consists of realizing a supervised training in an industrial organization, or using distance online training. You should take this module in the first semester.

In the **Fourth Year,** you should take nine modules in this year. In the first semester, you must select **one** departmental elective module, **three** compulsory modules that are all from the Department requirements, and **one** module from the Faculty requirements. In the second semester, you must take the Graduation Project

module, **one** departmental elective module, **one** University elective module, and **one** free module from any department in the University.

VII. Course Unit Choices

You may choose a course unit (module) if you have already taken all its prerequisite modules and your personal tutor must supervise this choice.

An initial choice is made before or at Departmental Registration. After that, changes can be made as follows:

- The deadline for changing modules in each semester is one week after lectures start (three days for summer semester). Normally, no changes of modules will be permitted after these dates except for the withdrawal mentioned in point (8) of the previous section.

- In the first instance, you should discuss any plan to change modules with your primary tutor. You must check that the new module you wish to take is a valid option for your degree program and find out if there are likely to be any timetable problems. If there are timetable clashes this will probably prevent you from changing module.

VIII. Assessment and Examinations

1. Criteria for Assessing Examination Work

First class (84 – 100 marks). First class answers demonstrate depth of knowledge or problem solving skills, which is beyond that expected from a careful and conscientious understanding of the lecture material. Answers will show that the student

1. has a comprehensive knowledge of a topic (often beyond that covered directly in the program) with an absence of misunderstandings;
2. is able to apply critical analysis and evaluation;
3. can solve unfamiliar problems not drawn directly from lecture material and can adjust problem solving procedures as appropriate to the problem;
4. can set out reasoning and explanation in a logical, incisive and literate style.

Upper Second class (76 – 83 marks). Upper second class answers provide a clear impression of competence and show that the student

1. has a good knowledge base and understanding of all the principal subject matter in the program;
2. can solve familiar problems with ease and can make progress towards the solution of unfamiliar problems;
3. can set out reasoning and explanation in a clear and coherent manner.

Lower Second class (68 – 75 marks). Lower second class answers will address a reasonable part of the question with reasonable competence but may be partially incomplete or incorrect. The answer will provide evidence that the student:

- has a satisfactory knowledge and understanding of the principal subject matter of the program but limited to lecture material and with some errors and omissions;
- can solve familiar problems through application of standard procedures;
- can set out reasoning and explanation which, whilst lacking in directness and clarity of presentation can nevertheless be followed and readily understood.

Third Class (60 – 67 marks). Third class answers will demonstrate some relevant knowledge but may fail to answer the question directly and/or contain significant omissions or incorrect material. Nevertheless, the answer will provide evidence that the student

- has some basic knowledge and a limited understanding of the key aspects of the lecture material;
- can attempt to solve familiar problems albeit inefficiently and with limited success.

Pass (50 – 59 marks). Answers in this category represent the very minimum acceptable standard. Such answers will contain very little appropriate material, major omissions and will be poorly presented lacking in any coherent argument or understanding. However the answer will suggest that the student

- has some familiarity with the general subject area;
- whilst unable to solve problems can at least formulate a problem from information given in a sensible manner.

2. Assessment Regulations

In general, every module is assessed as follows: 60% is given for two 1-hour midterm exams, coursework and/or seminars, projects, or essays, and 40% for the final exam that may be a written exam only or a written exam plus final laboratory exam (if applicable), final small project, or seminar presentation. The 40% of the final exam is from the University regulations. The minimum pass mark is 50% for any module, whereas the minimum passing accumulated average in each semester is 60%. Students will be warned if they could not obtain average of at least 60%. In this case, students are encouraged to repeat studying those modules with low marks in order to increase their accumulated averages. However, students will be dismissed from the University if this average is not achieved in the third attempt.

For the practical training module, each student should submit a technical report of his/her training, and a team of academic staff members makes several observations on the trainers' work in their place of training. Then according to the observations and the report, they assess the students.

On the other hand, a committee of three staff members, including the supervisor of the project, assesses the graduation project module. The project's assessment includes the supervisor mark (65%) and the discussion committee mark (35% given as follows: 10% for project presentation, 15% for report writing, and 10% for defendant discussion).

3. Role of Internal and External Examiners

For each module, the Department assigns a module coordinator and an internal examiner who is one of the senior staff members. If many lecturers teach the same module concurrently, they should suggest exam questions (for the first, second and final exams) and run the same exam for all sections. The main coordinator of the module will collect these questions from lecturers and select some of them to be in the exam paper.

On the other hand, external examiners validate the standard of degree program. The external examiners are expected to look at the question papers, inspect a selection of scripts and project reports (particularly those on borderlines). They supply an assessment report to the Department.

4. Appeal Procedures

If you have good reason to question a mark you have been given (in midterm exams or in coursework), you should in the first instance approach the module lecturer. If the problem is not solved, you must submit it to your primary tutor. He will find the appropriate solution with administrative structures.

Problems with final examinations are resolved by submitting complaints or appeals in writing (within three days of the announcement of examination results) to the Examination Committee of the Faculty. The examination committee will consider these cases and checks if there is any mistake in the summation of the marks and so on.

5. Unfair Practices

The University treats attempting to cheat in examinations severely. The penalty is usually more severe than a zero in the paper concerned. More than one student of this Department were dismissed from the University because of this. Plagiarism, or copying of course or lab work, is also a serious academic offense as explained in the University guidelines. In Department of Web Engineering these guidelines apply also to laboratory exercises.

6. Department Guidelines on Plagiarism

1. Coursework, laboratory exercises reports and essays submitted for assessment must be your own work, unless in the case of group projects a joint effort is expected and is indicated as such.
2. Unacknowledged direct copying from the work of another person, or the close paraphrasing of somebody else's work, is called plagiarism and is a serious offence, equated with cheating in examinations. This applies to copying both from other students' work and from published sources such as books, reports or journal articles.

3. Use of quotations or data from the work of others is entirely acceptable, and is often very valuable provided that the source of the quotation or data is given. Failure to provide a source or put quotation marks around material that is taken from elsewhere gives the appearance that the comments are ostensibly your own. When quoting word-for-word from the work of another person quotation marks or indenting (setting the quotation in from the margin) must be used and the source of the quoted material must be acknowledged.
4. Paraphrasing, when the original statement is still identifiable and has no acknowledgement, is plagiarism. A close paraphrase of another person's work must have an acknowledgement to the source. It is not acceptable for you to put together unacknowledged passages from the same or from different sources linking these together with a few words or sentences of your own and changing a few words from the original text: this is regarded as over-dependence on other sources, which is a form of plagiarism.
5. Direct quotations from an earlier piece of your own work, if not attributed, suggest that your work is original, when in fact it is not. The direct copying of one's own writings qualifies as plagiarism if the fact that the work has been or is to be presented elsewhere is not acknowledged.
6. Sources of quotations used should be listed in full in a bibliography at the end of your piece of work.
7. Plagiarism is a serious offence and will always result in imposition of a penalty. In deciding upon the penalty the Department will take into account factors such as the year of study, the extend and proportion of the work that has been plagiarized and the apparent intent of the student. The penalties that can be imposed range from a minimum of a zero mark for the work (without allowing resubmission) through caution to disciplinary measures (such as suspension or expulsion).

IX. Teaching Quality Assurance Committee

The Departmental Teaching Quality Assurance and Enhancement Committee is responsible for the quality of teaching in the Department, including the analysis of Course Evaluation Questionnaire responses.

X. Students Feedback and Representation

1. Staff Student Consultative Committees

Student representatives are elected onto the departmental staff student committees at the start of each term. All simultaneous sections of a module have a staff student committee. Each committee meets at least three times each semester and may discuss any matter of concern with the module. The staff members of each committee are the lecturers of the concerned sections.

2. Departmental and Deanship Meetings

The meetings, held by the head of Department and the Dean of the Faculty during term time, has mainly an advisory role, where students may raise their problems that need some concern from these authorized persons. These meetings are held separately for each year students.

3. Module Evaluation Questionnaires

The Department attaches great importance to the opinion of students on the quality of the teaching provided, and every student is asked to complete a Module Evaluation Questionnaire for each module. The questionnaires are anonymous.

XI. Communications

1. Official Notices

Official notices are posted on the notice boards at the Department and at the Faculty. Electronic mail is also used extensively for communication with the Department and University. Each lecturer provides the students with his/her e-mail at the beginning of the term. Most official information including copies of this handbook, the undergraduate syllabus and timetables are available on the University Web pages. This includes directories of staff and students for internal use, completed with photographs.

2. Electronic Mail

Electronic mail is used widely for administrative purposes within the Department. It is frequently useful for communicating between individuals and small groups (e.g. between a tutor and his/her tutorial group), and occasionally for broadcasting important messages to wider groups. It is important that you know how to use email. It will be covered in the introductory laboratory sessions. The code of practice for computer usage covers electronic mail, please note the points below.

3. Obscene or Offensive Mail

DO NOT SEND OBSCENE OR OFFENSIVE MAIL. If you receive mail, which you regard as offensive or obscene, you may wish to complain to a member of staff so that appropriate disciplinary action can be taken against the offender.

4. Group Mailing

You are strongly discouraged from sending email to groups of people. The newsgroups should be used for this purpose.

5. Miscellaneous Hints

- Be brief in your communications.
- Compose your message as if ALL of your recipients were physically present.
- Limit the distribution of messages to the people who are likely to be interested.
- Keep a copy of the mail you send out, for future reference. Learn to use folders to keep useful messages.
- Read all your incoming mail before replying to any of it. There may be other relevant messages for you to read.
- Be careful when replying to messages. You probably want your reply to go only to original message sender - not to the whole of the distribution list.
- When you reply to a message, it is frequently helpful to include some of the original message to help your recipients to remember and understand the context of the reply.

XII. Curriculum Design, Content and Organization

1. Curriculum Design and Content.

Students should complete 45 modules (132 credit hours) summarized as follows:

-	9 modules (University requirements)	(27 credit hours)	(20 %)
-	8 modules (Faculty requirements)	(24 credit hours)	(18 %)
-	14 modules (Department Compulsories)	(42 credit hours)	(32 %)
-	3 modules (Department Electives)	(9 credit hours)	(7 %)
-	10 modules (Supportive modules)	(30 credit hours)	(23 %)

The Web Engineering Department courses cover the knowledge areas listed below:

1. Computer Science & Algorithms
2. Programming
3. Information Science & Applications
4. Internet Technologies
5. Practical Training
6. Research Project
7. Statistics, Numerical Analysis, & Linear Algebra.

Table (1) gives the number of covered modules in each area. Table (2) illustrates the taught modules in each area.

Table (1) Knowledge Areas and Number of Modules

	Area	Compulsory Modules		Elective Modules		Total No. of Modules
		No.	(No./45) %	No.	(No./48) %	
1-	Computer Science & Algorithms	**3**	6.67%	**0**	0%	**3**
2-	Programming	**5**	11.11%	**0**	0%	**5**
3-	Information Science & Applications	**5**	11.11%	**2**	4.17%	**7**
4-	Internet Technologies	**16**	35.56%	**3**	6.25%	**19**
5-	Practical Training	**1**	2.22%	**0**	0%	**1**
6-	Research Project	**2**	4.44%	**0**	0%	**2**
7-	Statistics, Numerical Analysis, & Linear Algebra	**2**	4.44%	**0**	0%	**2**
	Total	**31**	**68.89%**	**Any 3**	**10.42%**	**34 (79.31%)**

2. **Curriculum Organization.** The curriculum is organized as it is shown in the study plan in **Appendix C**.

3. **Curriculum Characteristics**
   - ***Objectives of the Main University-Requirement Modules.*** These requirements are to broaden the student's base for different topics such as culture, languages, and computer skills.

   - ***Objectives of the Main Faculty-Requirement Modules.*** These requirements are to consolidate mainly the student's background in Mathematics and some other common topics. They constitute the common knowledge required for all students in the Faculty of Information Technology.

   - ***Objectives of the Main Computing Modules in the Curriculum.*** The modules in the curriculum are organized into three types: **introductory, intermediate**, and **advanced** modules. The curriculum is designed according to the **Imperative First Strategy** for the introductory modules.

   - ***Objectives of the Training and Graduation Project Modules.*** The objectives of these modules are to allow students to gain practice in problem analysis, design, implementation, report writing, and presentation.

   - ***Elaboration on Content and Emphasis of Practical Components of Modules.*** Most of the modules contain practical work that make students involved in using current web software tools and computing technologies. Thus, the practical part of modules accounts for at least 25% of the total number of hours. Many laboratory assignments are given during the semester through which the students can practice what they have learned from the theoretical part of the module, or develop their skills in using most recent web software tools and programming languages.

   - ***4. Innovation of Curriculum.*** The curriculum is constantly evolving to cope-up with new technologies and rapidly developing web software. The first curriculum was designed in 2015. Proceeding in this way provides a curriculum that matches the aims and objectives of the Department and the University. The Scientific Committee with the Syllabus setup committee of the Department usually recommend development and modification of curriculum.

Table (2): The Taught Modules in Each Area of Web Engineering

A- The Compulsory Modules	B- The Elective Modules
1. Computer Science & Algorithms • 0250104 – Discrete Structures • 0721224 – Data Structures • 0750323 – Algorithms	
2. Programming • *0721223 – Object-Oriented Programming* • *0731213 – Web Programming* • *0750113 – Programming Fundamentals (1)* • *0750114 – Programming Fundamentals (2)* • *0750215 – Visual Programming*	
3. Information Science & Applications • *0731221 – Database Fundamentals* • *0731340 – Fundamentals of Computer Networks* • *0750464 – Information and Data Retrieval* • *0780320 – Web System Analysis and Design* • *0780431 – Web Security*	• *0780344 – Mobile Web Applications* • *0780346 – Web Server Administration*
4. Internet Technologies • *0721240 – Computing Ethics* • *0731110 – Introduction to Information Systems and Technology* • *0731423 – Data Mining* • *0750335 – Operating Systems* • *0780110 – Introduction to Internet and Web Technology* • *0780111 – Web Engineering Fundamentals* • *0780220 – Fundamentals of e-Government* • *0780221 – Requirements Engineering for Web Applications* • *0780230 – Web Documents* • *0780321 – Web Process and Project Management* • *0780323 – Web Applications Usability* • *0780324 – Web Services* • *0780340 – Web Server Side Technologies* • *0780341 – Web Client side Technologies* • *0780420 – e-Commerce System Engineering* • *0780423 – Quality Assurance and Testing of Web Applications*	• *0780430 – Semantic Web* • *0780432 – Special Topics in Web Engineering* • *0780445 – Cloud Computing based Development*
5. Practical Training • *0780470 – Practical Training*	
6. Research Project • *0780480 – Project (1)* • *0780481 – Project (2)*	
7. Statistics, Numerical Analysis, & Linear Algebra. • *0250231 – Introduction to Statistics and Probabilities* • *0750272 – Numerical Analysis*	

XIII. Health and Safety in the University

The University has a Health and Safety Committee, which comprises representatives of all services within the University. It is the responsibility of this committee to investigate complaints and potential hazards, to examine the cause of all accidents and to carry out periodic inspections of all areas of the Department. At registration, you will be required to assent to the departmental code of behavior, which relates to health and safety.

1. **Buildings**
   The Department comprises two kinds of buildings: the Rooms Building and the IT Laboratories. The buildings are generally open between 08.00 and 19.30 (Sunday – Thursday). In accordance with University policy, smoking is prohibited throughout all buildings.

2. **Emergency Evacuation**
   It is the responsibility of every individual to familiarize themselves with the Department's buildings and be aware of the fire exits.
   - After evacuation of any building, please assemble well away from the building, and do not block any exits.
   - Do not return to any building until authorized to do so.

3. **Fire Action**
   Fire Action notices are located at, or adjacent to, fire alarm actuation points, and all staff and students should make them acquainted with this routine.

4. **Operating the Fire Alarm**
   The manual fire alarm system can be activated by breaking the glass in the red contact boxes sited at strategic points throughout the premises.

5. **Use of Fire Appliances**
   Fire appliances are sited at strategic points throughout the Department to deal with fires. Fires should only be tackled provided there is no personal danger and after the alarm has been set off.

6. **Action when the Alarm Rings**
   On hearing the intermittent alarm, you should prepare yourself to leave the building.
   On hearing the continuous alarm, you should evacuate the building immediately by the nearest exit.

7. **Personal Difficulties**
   Please inform the Department's counselors or your tutor of any difficulties with which the Department can be of assistance.

Appendix A

The Guidance Plan

2018/2019

Philadelphia University **Faculty of Information Technology**

Department of Web Engineering
Guidance Plan (132 Credit Hours)

Year	First Semester				Second Semester			
	Module Number	Module Title	Prereq	Type	Module Number	Module Title	Prereq	Type
(1)	0114101	Arabic Language Skills (1)		Uni	0130102	English Language Skills (2)	0130101	Uni
	0130101	English Language Skills (1)		Uni	0111101	National Education		Uni
		University Elective 1		Uni		**University Elective 2**		Uni
	0750113	Programming Fundamentals (1)		Fac	0750120	Discrete Mathematics	0750099	Sup
	0731110	Introduction to Information Systems and Technology		Fac	0750114	Programming Fundamentals (2)	0750113	Fac
	0780110	Introduction to Internet and Web Technology		Fac	0780111	Web Engineering Fundamentals	0780110	Dept
	Semester Total		*18 Hours*		*Semester Total*		*18 Hours*	
(2)		**University Elective 3**		Uni	0250231	Introduction to Statistics and Probabilities	0750120	Sup
	0721223	Object-Oriented Programming	0750114	Fac	0721224	Data Structures	0721223	Sup
	0750272	Numerical Analysis	0750114	Sup	0750215	Visual Programming	0721223	Fac
	0731213	Introduction to Web Programming	0750114	Fac	0731221	Database Fundamentals	0721223	Sup
	0780220	Fundamentals of e-Government	0780111	Dept	0780221	Requirements Engineering for Web Applications	0780111	Dept
	0780230	Web Documents	0780111	Dept	0721240	Computing Ethics	0731110	Fac
	Semester Total		*18 Hours*		*Semester Total*		*18 Hours*	
(3)		**University Elective 4**		Uni		Department Elective 1		Dept
	0750323	Algorithms	0721224	Sup	0731340	Fundamentals of Computer Networks	0721224	Sup
	0750335	Operating Systems	0721224	Sup	0780323	Web Applications Usability	0780320	Dept
	0780320	Web System Analysis & Design	0780221	Dept	0780324	Web Services	0780340	Dept
	0780321	Web Process and Project Management	0780221	Dept	0780341	Web Client Side Technologies	0780230	Dept
	0780340	Web Server side Technologies	0780230	Dept				
	Semester Total		*18 Hours*		*Semester Total*		*15 Hours*	
(4)		Department Elective 2		Dept		Department Elective 3		Dept
	0780420	e-Commerce System Engineering	0780323	Dept	0780431	Web Security	0731340	Dept
	0750464	Information and Data Retrieval	0731221	Sup	0780481	Project (2)	0780480	Dept
	0780480	Project (1)	90 Hrs	Dept	0780423	Quality Assurance and Testing of Web Applications	0780320	Dept
	0780470	Practical Training	90 Hrs	Dept	0731423	Data Mining	0750464	Sup
	0111100	Military Sciences		Uni				
	Semester Total		*13 Hours*		*Semester Total*		*14 Hours*	

Appendix B

Study Plan

2018/2019

Philadelphia University
(Private Accredited University)

Faculty of Information Technology
Web Engineering Department

Study Plan for Bachelor Degree in Web Engineering (132 Credit Hours)

First: University Requirements (27 Credit Hours)

1- University Compulsory: (15 Credit Hours)

Module No.	Module Name	Credit Hours	Prereq.	Mark
0111100	Military Sciences **	3	----	
0111101	National Education	3	----	
0114101	Arabic Language Skills (1)	3	0114099	
0130101	English Language Skills (1)	3	0130099	
0130102	English Language Skills (2)	3	0130101	

** Compulsory for Jordanian students and elective for Non-Jordanians

2- University Electives: (12 credit hours)

(Each student studies (12) credit hours from the following fields one module from each field as minimum and two modules from one field as maximum)

Module No.	Module Name	Credit Hours	Prereq.	Mark
a. Humanity Sciences Field (3 - 6) Credit Hours				
0114102	Arabic Language Skills (2)	3	0114101	
0130103	English Language Skills (3)	3	0130102	
0140101	French Language Skills (1)	3	---	
0140104	Foreign Language (Italian 1)	3	---	
0140105	Foreign Language (Italian 2)	3	0140104	
0140106	Foreign Language (Hebrew 1)	3		
0140109	Chinese language Skills (1)	3		
0140110	Chinese language Skills (2)	3	0140109	
b. Social and Economical Sciences Field (3 - 6) Credit Hours				
0111111	Introduction to Sociology	3	---	
0111112	Introduction to Psychology	3	---	
0111133	Culture and Civilization (1)	3	----	
0111142	Communication and Society	3	---	
0115255	Culture of Development	3	---	
0420140	Human Rights	3	---	
0420143	Legal Culture	3	---	
c. Science, Technology, Agriculture, & Health Field (3-6) Credit Hours				
0371111	Project Management Skills	3	---	
0731101	Social Networking Skills	3	---	
0731111	Computer Skills	3	---	
0910101	Health Promotion of Individuals and the community	3	---	
0910105	Principles of Nursing and First Aid	3	---	

Second: Faculty Requirements (24 Credit Hours)

Module No.	Module Name	Credit Hours	Prereq.	Mark
0721223	Object-Oriented Programming *	3	0750114	
0721240	Computing Ethics	3	0731110	
0731110	Introduction to Information Systems and Technology	3	----	
0731213	Introduction to Web Programming	3	0750114	
0750113	Programming Fundamentals (1) *	3	----	
0750114	Programming Fundamentals (2) *	3	0750113	
0750215	Visual Programming *	3	0721223	
0780110	Introduction to Internet and Web Technology	3	----	

Third: Major Requirements (81 Credit Hours)

a- Compulsory Modules (42 Credit Hours)

Module No.	Course Name	Credit Hours	Prereq.	Mark
0780111	Web Engineering Fundamentals	3	0780110	
0780220	Fundamentals of e-Government	3	0780111	
0780221	Requirements Engineering for Web Applications	3	0780111	
0780230	Web Documents *	3	0780111	
0780320	Web System Analysis and Design	3	0780221	
0780321	Web Process and Project Management	3	0780221	
0780323	Web Applications Usability *	3	0780320	
0780324	Web Services	3	0780340	
0780340	Web Server Side Technologies *	3	0780230	
0780341	Web Client side Technologies *	3	0780230	
0780420	e-Commerce System Engineering	3	0780323	
0780423	Quality Assurance and Testing of Web Applications	3	0780320	
0780431	Web Security	3	0731340	
0780470	Practical Training	0	90 Hours	
0780480	Project (1) *	1	90 Hours	
0780481	Project (2) *	2	0780480	

***All major modules include at least 25% Practical work, Tutorial, Lab., and Assignment**

b- Supplementary Compulsary Requirements (30 Credit Hours)

Module No.	Module Name	Credit Hours	Prereq.	Mark
0250231	Introduction to Statistics and Probabilities	3	0750120	
0721224	Data Structures *	3	0721223	
0731221	Database Fundamentals *	3	0721223	
0731340	Fundamentals of Computer Networks *	3	0721224	
0731423	Data Mining	3	0750464	
0750120	Discrete Mathematics	3	0750099	
0750272	Numerical Analysis	3	0750114	
0750323	Algorithms	3	0721224	
0750335	Operating Systems	3	0721224	
0750464	Information and Data Retrieval	3	0731221	

c- Elective Modules (9 Credit Hours)

Module No.	Module Name	Credit Hours	Prereq.	Mark
0780344	Mobile Web Applications	3	0780323	
0780346	Web Server Administration	3	0780340	
0780430	Semantic Web	3	0780324	
0780432	Special Topics in Web Engineering	3	90 Hours	
0780445	Cloud Computing based Development	3	0780324	

All students must apply for level exam in Arabic and English languages and Computer skills

16/01/2018