# Philadelphia University

## Faculty of Information Technology

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# Department of Management Information Systems

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## Undergraduate Programme Handbook

# (2016 – 2017)
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## I. Introduction

This handbook contains important general information for students undertaking Undergraduate Degree program in the Department of Management Information Systems. 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.

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## II. Mission Statement

The mission of The Management Information Systems Department is derived from the overall IT Faculty and University mission. The Management Information Systems Department at Philadelphia University was established during the year 2000-2001. The basic objective of the department is to generate highly skilled professionals to meet the growing market demands in the Information Technology and Systems.

The mission of the Management Information Systems 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 Management Information Systems, 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 curriculum of this program aims to prepare students to have a good understanding of Information Technology and its use in organizations for information system development, decision making, project management, etc, and to develop Management Information Systems with Management /Business environment. The graduates from this department can apply IT knowledge in analysis, modeling, design, development, and implementation.

## III.  Important Dates

1. **Registration**:

Admission criteria are issued by the Higher Education Council, which governs all private universities (60% in the Tawjihi exam). First year students must attend the University and they will be given a full timetable for the introductory activities. Departmental and University registration must be completed at the time specified in the introductory timetable (shown below). Returning students must also register in the times specified during introductory week.

**(a) The morning study (full-time students)**

First year students must attend at 8.00 AM on Sunday 16th OCT 2016.

2. **Session Dates 2016-2017**

**A. FIRST TERM**
- **The morning study**
  Begins: Sunday 16th OCT 2016
  Ends   : Thursday 26th February 2016

  The first semester includes
  - Teaching, learning, and assessment activities in MIS will run for 16 weeks, from Sunday 16th OCT 2016 to Thursday 26th February 2017.
  - The following break days:25th October, 25th December,  1st January 2017.

**B. SECOND TERM**
- **The morning study**
  Begin:    Sunday 1st March 2017
  End   :    Thursday 25th June 2017

  The second semester includes
  - Teaching, learning, and assessment activities in MIS  will run for 16 weeks, from Sunday 1st March  2017 to Thursday 25th June 2017.
  - day breaks on 25th May 2017.

**C. SUMMER TERM**
- **The morning** study
  Begin:    Sunday 5th July 2017
  End   :    Thursday 3rd September 2017

Summer semester includes teaching, learning, and assessment activities, which will run from Sunday 5$^{th}$ July 2017 to Thursday 3$^{rd}$ September 2017. The following break days:18$^{th}$ July -20$^{th}$ July 2017.

- **Examination Periods** *********************

**First Semester:**
(for morning study) –19$^{th}$ Novermber to 27$^{th}$ November 2016. (First Exam)
(for morning study) – 28$^{th}$ December to 6$^{th}$ January 2017. (Second Exam)
(for morning study) –1$^{th}$ February to 9$^{st}$ February 2017 (Final Exam)

**Second Semester:**
(for morning study) –1th April to 9$^{th}$ April 2017. (First Exam)
(for morning study) –6$^{th}$ May to 14$^{th}$ May 2017. (Second Exam)
(for morning study) –14$^{th}$ June to 22$^{th}$ June 2017. (Final Exam)

**Summer Semester:**
(for morning study) –26$^{th}$ July to 29$^{th}$ July 2017. (First Exam)
(for morning study) –9$^{rd}$ August to 12$^{th}$ August 2017. (Second Exam)
(for morning study) –25$^{th}$ August to 31$^{th}$ August 2017. (Final Exam)

## 3. 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

### a. EDUCATIONAL AIMS
• To provide a broad-based education in MIS to students from a wide range of backgrounds and with varied subject interests and professional expectations.
• to create a supportive and stimulating learning environment to enable students to develop their capacity for creativity, visual and critical awareness, analysis, problem-solving, research, and speculative and intellectual enquiry.
• To enable students to acquire the knowledge, and develop specialist and transferable skills appropriate for MIS practice.
• To emphasize individual, collaborative and interdisciplinary work undertaken within the Information Technology environment and other appropriate environments.
• To equip students to pursue their chosen specialists through professional practice, related employment or further study or research.

• To contribute to the development of MIS theory and practice.

**b. Enable students to develop their capacity to learn and participate in the society as competent professionals.**

1- Abilities to improve the practical and theoretical skills.
2- Develop among students the awareness of the social, organizational, and professional context in which they will be working on.
3- Produce graduates who will be able to contribute to and take active part in a variety of industrial, commercial, and academic activities.
4- Produce graduates who exhibit a range of broad based skills and activities related to Management Information Systems.
5- Produce graduates who can adapt to changing technology and have the ability to recognize technological and human trends.
6- Produce graduates who meet the industry standard in MIS and have experience in the use of general tools and technologies used in the design and implementation of Management Information Systems.
7- Provide study opportunities, which are comparable with national and international academic qualifications.
8- Engender among students the spirit of research and enquiry through suitable mechanism such as departmental research.
9- Enable students to develop transferable skills such as verbal and written communication, teamwork leadership, planning, etc.

The Bachelor of MIS aims to produce graduates who will be able to:
- Develop Management Information System with Management/Business environment.
- Have a good understanding of Information Technology and its use in organizations for information system development, decision making, project management, etc.
- Have a life long learning attitude.
- Apply IT knowledge in planning, design, evaluation, development, implementation, etc.

*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 of**
A1) The essential mathematics, statistics, management and accounting relevant to Management Information Systems;
A2) A wide range of principles and tools available to MIS Professionals including analysis, modelling and design tools, programming language, case studies, etc;
A3) The principles of information systems and technology, e-commerce, networks, e-marketing, business requirements;
A4) The professional and ethical responsibilities and understanding of quality;
A5) The principles and techniques of a number of research areas such as databases, decision support systems, information mamngement, project management, data mining, knowledge management etc;
A6) The application of computing in management and business context;

**B- Intellectual (thinking) skills - able to**

B1) Solve a wide range of problems related to the analysis, design and implementation of Management Information Systems;

B2) Contribute in design and implement software systems in the field of decision making and e-commerce applications;

B3) Identify a range of solutions and critically evaluate and justify proposed design solutions in different MIS fields including decision making, business systems, planning, project management, operations research, etc;

**C- Practical skills - able to**

C1) Plan and undertake a major individual project.

C2) Prepare and deliver coherent and structured verbal and written technical reports.

C3) Give technical presentations suitable for the time, place and audience.

C4) Use the scientific literature effectively and make discriminating use of Web resources.

C5) Design, write and debug computer programs (e-commerce applications) in appropriate languages.

C6) Use appropriate computer-based design support tools.

**D- Transferable skills - able to**

D1) Display an integrated approach to the deployment of communication skills.

D2) Use IT skills and display mature computer literacy.

D3) Work effectively with and for others.

D4) Strike the balance between self-reliance and seeking help when necessary in new situations.

D5) Display personal responsibility by working to multiple deadlines in complex activities.

D6) Employ operational research skills appropriately for business problems.

In order to provide students with the "life long 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 5, 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 25 and 68 years of age, have relatively adequate experience ranging from 1 year to 25 years.

  Two academic staff members at the Basic Sciences Department / Faculty of Science assist in teaching the Mathematics and Statistics course units. Other Two academic staff members at the Faculty of Administrative and Financial Sciences assist in teaching the Management and Accounting course units

- **Specialisations**

Full-time as well as part-time teaching staff members have various specialisations that can be divided into four categories (Software, E-commerce Applications, Web Technology, and Information Systems). At present, there are three 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, all of them hold a B.Sc. degree in Computer Science. Those staff members have 3 to 7 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. Mohamad Thaljii, 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. Whenever the buildings are open between 08 AM and 04 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, Extension. 453. 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.

- **Printing**
  You can take printout (free of charge) in any lab of the Department. Each lab contains at least two printers for this purpose.

- **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 seven offices (Dean, 2 Advisory services, 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.
  - 25 laboratories (each contains 20 to 25 PCs or Monitors and 1 to 2 printers): Windows NT Laboratories, Internet Laboratories, SunRay1 UNIX Laboratories, and Sun Sparc UNIX Laboratory.
  - 1 Learning Resource Center that contains computers, textbooks and related reference books and journals.
  - 6 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 14 data shows used to support modules and seminars presentations.

- **University Computer Centre**

  This centre 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 100 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 organisations. It opens from 08 AM to 04 PM. It includes:
  - *Conventional Library,* which contains books and journals. The books room contains more than 8130 different English titles in computing, where more than 70% are edited in years 2000 and later. 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 encyclopaedias and other databases on the Internet.

- *Internet Access Service,* available in a room containing 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 organises 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 15 PCs.
  - One Students Club.

## V. Student Support and Guidance

### 1. Vice Dean Office
The **Vice Dean Office** 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 Mangement Information Systems Department (including both Full- and Part-time students).
  Time: 08.00 AM to 04:00 PM Sunday to Thursday during term.

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 2016/2017. 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 (Univ. Reqts.), Faculty Requirements (Fac. Reqts.), and Department Requirements (Dept. Reqts.). 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, **three** from the Faculty requirements, **two** from the support 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. **One** of the 12 modules of the second year are from the University requirements, **two** from the Faculty requirements, **one** from the support requirements, and **eight** from the Department requirements.

Meanwhile, in the **Third Year,** you should take six modules in the first semster and five modules in the second semester. **Nine** modules are from the compulsory Department Requirements, **one** module from the University requirements and **one** module 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 Fcaulty 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 (90 – 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 (80 – 89 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 (70 – 79 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 – 69 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 (35%) and the discussion committee mark (65% given as follows: 20% for project presentation, 25% for report writing, and 20% 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 Management Information Systems Department 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. Student 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 www.philadelphia.edu.jo. 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 44 modules (132 credit hours) summarised as follows:

   - 9    modules (University requirements)        (27 credit hours)        (20.45 %)
   - 9    modules (Faculty requirements)           (27 credit hours)        (20.45 %)
   - 19   modules (Departmental Compulsories)      (57 credit hours)        (43.18%)

- 2   modules (Departmental Electives)          (6   credit hours)          (4.55   %)
- 5   modules (Supportive modules)              (15 credit hours)          (11.36  %)

The Department covers the Management Information Systems program from the areas listed below:
1. **Fundamentals and applications of management Information Systems**
2. **Applications of Programming languages in management**
3. **Databases and systems analysis & design**
4. **Knowledgebase systems and management**
5. **E-commerce and multimedia and communications Systems**
6. **Mathematics, statistics and legal aspects**
7. **practical courses**
8. **Project and training**

**Table (1)** gives the number of covered modules in each area. Note that the ratios are calculated according to **44**, which is the total number of modules that each student should study. In this Table, the total number of the compulsory modules is shown as **33** rather than **24.** This is because some modules from University and Faculty requirements are included as they are strongly related to the compulsory modules. **Table (2)** illustrates the taught modules in each area.

**Table (1) Areas of Specialization and Number of Modules**

| | Area | Compulsory Modules | | Elective Modules | | Total No. of Modules |
|---|---|---|---|---|---|---|
| | | No. | (No. /44) % | No. | (No./44) % | |
| 1- | Fundamentals and applications of MIS and Programming languages in management | **11** | 25.00% | **1** | 2% | **12** |
| 2- | Databases and systems analysis & design | **5** | 11% | **0** | 0% | **5** |
| 3- | Knowledgebase systems and management | **2** | 5% | **2** | 5% | **4** |
| 4- | E-commerce and multimedia and communications Systems | **5** | 11% | **0** | 0% | **5** |
| 5- | Mathematics, statistics and legal aspects | **4** | 9% | **0** | 0% | 4 |
| 6- | practical courses | **3** | 7% | **1** | 2% | **4** |
| 7- | Project and training | **2** | 5 % | **0** | 0% | **2** |
| | **Total** | **32** | **75%** | **4** | **29.5%** | **36** |

2. **Curriculum Organization.** The curriculum is organised 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 IT/IS, Programming and some other common topics. They constitute the common knowledge required for all students in the Faculty of Information Technology.

   - *Objectives of the Main MIS 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. This model also focuses on programming, but emphasises the principles of object-oriented programming and Design from the second semester of the first year. The curriculum of Intermediate modules is designed according to the **Topics-based approach**, which is the most common approach for the intermediate modules. Students take separate modules in each of the core areas enumerated below (programming fundamentals with object-oriented paradigm, Management Information Systems, Multimedia, Data strcture, etc.). For the advanced modules, the Department wishes to orient such modules to its own areas of expertise. The advanced and elective modules contain more advanced topics in the areas of Management Information Systems, Systems analysis, design and modelling, Decision support systems, Data Mining, Project and Training.
   Recent methodology in programming such as object-oriented programming, software tools, and current technologies in E-commerce applications and Enterprise systems are included in the curriculum.

   - *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 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 software tools and programming languages. For example, the practical work in "Programming Fundamentals I, II" and "Object-Oriented Programming" modules emphasize on problem solving and structured and object-oriented programming via C++ language, C# and Java language. However, the practical work in E-commerce applications development module is concerned with PHP & Mysql and .Net Framework, while in Data base applications it is concerned with Oracle 12g DBMS. Many other tools are associated with other modules such as Operations Research (TORA), Data Mining (WEKA), Systems analysis & design & Modelling (Rational Rose), Decision support systems (DSS Tools), Enterprise Information Systems (ERP tools), Information Systems Project Management (MS Project),…etc

4. *Innovation of Curriculum.* The curriculum is constantly evolving to cope-up with new technologies and rapidly developing software. The first curriculum was designed in 2000 and updated in 2001, 2005, 2008, 2010 and 2015. This development is through regular internal monitoring and reviews, and to recent local developments in teaching and learning. For example, the Curriculum 2016/2017 is a clear specialisation in analysis, modelling, design, and development

of software and management information systems that are supported by the object-oriented technology. 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.

## 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 04.00 (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 Study Plan

## of

## Management Information Systems Programme

## (2016 – 2017)

# Philadelphia University
## (Private Accredited University)

**Study Plan fo**
**Management**
**(132 (**

## First: University Requirements (27 Credit Hours)

### 1- University Compulsory: ( 12 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 Langauge Skills (1) | 3 | 0130099 | |

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

### 2- University Electives : ( 15 credit hours )

(Each student studies (15) credit hours from the following

fields: one module from each field as minimum and two modules as maximum)

**a. Humanity Sciences Field (3 - 6) credit hours**

## Second: Faculty Requirements (27 C

| Module No. | Module Name |
|---|---|
| 0130102 | English Language Skills (2) |
| 0721220 | Object-Oriented Programming |
| 0721240 | Computing Ethics |
| 0731110 | Introduction to Information S and Technology |
| 0731213 | Introduction to Web Programmi |
| 0750113 | Programming Fundamentals (1) |
| 0750114 | Programming Fundamentals (2) |
| 0750215 | Visual Programming * |
| 0770110 | Introduction to Internet and Tecnology |

**Third: Major Requirements (78**

**a- Compulsory Modules (57**

| Module No. | Module Name | Credit hours | Prereq. | Mark |
|---|---|---|---|---|
| 0114102 | Arabic Language Skills (2) | 3 | 0114101 | |
| 0130103 | English Lanaguge 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 skills1 | 3 | | |
| 0140110 | chinese language skills2 | 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, and Health Field (3-6) Crd Hrs**

| Module No. | Module Name | Credit hours | Prereq. | Mark |
|---|---|---|---|---|
| 0731101 | Social Networking Skills | 3 | --- | |
| 0371111 | Project Management Skills | 3 | --- | |

| Module No. | Module Name |
|---|---|
| 0731214 | Information Systems Manageme... |
| 0731220 | Introduction to Data Structures Algorithms |
| 0731221 | Database Fundamentals  * |
| 0731240 | Principles of E-Commerce |
| 0731241 | Multimedia Systems  * |
| 0731316 | Information Systems Projects Management |
| 0731321 | Systems Analysis and Design |
| 0731330 | Decision Support Systems |
| 0731340 | Fundamentals of Computer Net... * |
| 0731343 | E-Marketing |
| 0731360 | Database Applications  * |
| 0731370 | Practical Training |
| 0731415 | Operations Research for Busines... |
| 0731423 | Data Mining |
| 0731433 | Knowledge Management |
| 0731443 | Information Systems Security |
| 0731464 | Information Systems Modeling |
| 0731465 | E-commerce Applications Development * |
| 0731480 | Research Project (1)   * |

| Code | Course | Credit | Prereq | | Code | Course |
|---|---|---|---|---|---|---|
| 0731111 | Computer Skills | 3 | --- | | 0731482 | Research Project (2)   * |
| 0910101 | Health Promotion of Individuals and the community | 3 | --- | | | |
| 0910105 | Principles of Nursing and First Aid | 3 | --- | | | |

# The Guidance Plan

## of

# Management Information Systems Programme

## (2016 – 2017)

**Philadilphia University**                    **Faculty of Information Technology**

# Management Information Systems Department
### Guidance Plan
### (132 Credit Hours)
### (2016-2017)

| Year | Semester | Module Number | Module Title | Prerequisite | Types of Requirements |
|---|---|---|---|---|---|
| First | First (15 Credit Hours) | 731110￼ 750113￼ 331110￼ 111101￼ 130101 | Introduction to Information Systems and Technology.￼ Programming Fundamentals (1)￼ Introduction to Management/ English￼ National Education￼ English Language Skills (1) | ----￼ ----￼ ----￼ ----￼ ---- | (FR)￼ (FR)￼ (SR)￼ (UR)￼ (UR) |
| | Second (18 Credit Hours) | 750114￼ 311101￼ 130102￼ 250105￼ 110101￼ 770110 | Programming Fundamentals (2)￼ Principles of Accounting 1/English￼ English Language Skills (2).￼ Business  Mathematics￼ Arabic Language Skills (1)￼ Introduction to Internet and Web Technology | 750113￼ ----￼ 130101￼ ----￼ 110099￼ ---- | (FR)￼ (SR)￼ (FR)￼ (SR)￼ (UR)￼ (FR) |
| Second | First (18 Credit Hours) | 721220￼ 731214￼ 731213￼ 721240￼ 250231￼ ------ | Object-Oriented  Programming￼ Information Systems Management￼ Introduction to Web Programming￼ Computing Ethics￼ Principles of Statistics and Probabilities￼ University Elective | 750114￼ 731110+331110￼ 750114￼ 731110￼ ----￼ ---- | (FR)￼ (DR)￼ (FR)￼ (FR)￼ (SR)￼ (UR) |
| | Second (18 Credit Hours) | 731220￼ 731221￼ 731241￼ 731240￼ 750215￼ ------ | Introduction to Data Structures and Algorithms￼ Database Fundamentals￼ Multimedia Systems￼ Principles of E-Commerce￼ Visual Programming￼ University Elective | 721220￼ 721220￼ 731110￼ 731213￼ 721220￼ ---- | (DR)￼ (DR)￼ (DR)￼ (DR)￼ (FR)￼ (UR) |
| Third | First (15 Credit Hours) | 731321￼ 731360￼ 731340￼ 731316￼ ------ | Systems Analysis and Design￼ Database Applications￼ Fundamentals of Computer Networks￼ Information System Projects Management￼ University Elective | 731221￼ 731221￼ 731220￼ 731214￼ ---- | (DR)￼ (DR)￼ (DR)￼ (DR)￼ (UR) |
| | Second (15 Credit Hours) | 731464￼ 731370￼￼ 731343￼￼ 731415￼￼ ------ | Information Systems Modelling￼ ϿϿϿ Practical Training￼￼ E-Marketing￼￼ Operations Research for Business￼￼ University Elective | 731321+721220￼ 81 CRs + Dept. Approval+750099￼￼ 731240￼ 250105+250231￼￼ ------ | (DR)￼ (DR)￼ (DR)￼ (DR)￼ (DR)￼ (UR) |
| Fourth | First (16 Credit Hours) | 731443￼ 731423￼ 731330￼ 731480￼ 111100￼ ----- | Information Systems Security￼ Data Mining￼ Decision Support Systems￼ Research Project (1)￼ Military Sciences￼ Department Elective  (1) | 731340￼ 731360￼ 731316￼ 90 CRs + Dept. Approval￼ -----￼ ----- | (DR)￼ (DR)￼ (DR)￼ (DR)￼ (UR)￼ (DR) |
| | Second (17 Credit Hours) | 731450￼ 731465￼ 731433￼ 731482￼ -----￼ ------ | E-Commerce Law￼ E-Commerce Applications Development￼ knowledge Management￼ Research Project (2)￼ Department Elective (2)￼ University Elective | 731240￼ 750215+ 731240￼ 731330￼ 731480￼ ------￼ ------ | (SR)￼ (DR)￼ (DR)￼ (DR)￼ (DR)￼ (UR) |

# Appendix B

## Outlines of Module Descriptions

## 2016 – 2017

## I- The University Requirements and Faculty Requirements
In the University requirements, only the computer-based modules are considered here.

## (A) University Requirements

## 731111, Computer skills
3 hours per week, 3 credit hours, prerequisite: **none**

*Aims:* Introduction to computer systems and practical use of software packages.

*Teaching Method:* 30 hours Lectures and Laboratory (2 per week) + 15 hours Example sessions (1 per week)

*Textbooks:*
   1.   Al-Zoubi M. Bilal et al,  Computer Skills, Eight Edition, 2014.

*Synopsis:* Introduction to computer systems and practical use of software packages. Introduction, MS-DOS, MS-Windows, WinWord, Excel, PowerPoint, Internet.

*Assessment:* Two 1-hour midterm exams (20% each); Assignments (20%); 2-hours Final Exam (40%)
……………………………………………………………………………………………………………..
## 731101, Social Networking Skills
3 hours per week, 3 credit hours, prerequisite: **none**

*Aims:* Introduction to computer systems and practical use of software packages.

*Teaching Method:* 30 hours Lectures and Laboratory (2 per week) + 15 hours Example sessions (1 per week)

*Textbooks:*
   1.

*Synopsis:* Social networking, classifications, types, advantages, disadvantages, applications and tools of social networking, Facebook, Twitter, Google+, Google drive, YouTube, Blogger, social commerce, e-learning, security, privacy and legal aspects of social networking.

*Assessment:* Two 1-hour midterm exams (20% each); Assignments (20%); 2-hours Final Exam (40%)
……………………………………………………………………………………………………………..

## (B) Faculty Requirements

## 750113 Programming Fundamentals (1)
*Course Hours:* 3 hours per week, 3 credit hours (total of 48 hours)

*Level:* 1

*Prerequisite*: **None**

*Aims:*
This module aims to introduce computer programming and emphasis in problem solving on the fundamentals of structured design using the principles of Top Down problem solving strategy (divide and conquer). This includes development, testing, implementation, documentation.
The module also aims to explore the logic of programming via the algorithm concepts and implement them in programming structures including functions, arrays, strings, and pointers.

.

*Teaching MethodsDuration*: 16 weeks, 80 hours in total
*Lectures*: 32 hours (2 hours per week), *Tutorials*: 16 hours (1 per week),

*Laboratories*: 32 hours, 2 per week

*Synopsis:* problem solving strategies , algorithmic language to describe such problem solving, introduces the principles of procedural programming, data types, control structures, data structures and functions, data representation on the machine level. Various problems are considered to be solved using C-like procedural programming language.

.

*Assessment:* Two 1-hour midterm exams (15% each); lab (30%); One 2-hours Final Examination (40%)

*Textbook:*

    D.S. Malik , Thomson, C++ Programming: From Problem Analysis to Program Design, Third Edition, Course Technology, 2007

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# 750114 Programming Fundamentals (2)
*Course Hours:* 3 hours per week, 3 credit hours (total of 48 hours)

*Level:* 1

*Prerequisite*: **750113**

*Aims:*
This module aims to introduce computer programming and emphasis in problem solving on the fundamentals of structured design using the principles of Top Down problem solving strategy (divide and conquer). This includes development, testing, implementation, documentation.
The module also aims to explore the logic of programming via the algorithm concepts and implement them in programming structures including functions, arrays, strings, and pointers
.

*Teaching MethodsDuration*: 16 weeks, 80 hours in total
*Lectures*: 32 hours (2 hours per week), *Tutorials*: 16 hours (1 per week),
*Laboratories*: 32 hours, 2 per week

*Synopsis:* Functions definition, Parameters definition and passing , One dimensional array, Two dimensional array, use of main operations of a sequential file: open, reset, rewrite, read, write, eof, Introduction to Class and object, Genericity, components reuse, component programming
Various problems are considered to be solved using C-like procedural programming language.

.

*Assessment:* Two 1-hour midterm exams (15% each); lab (30%); One 2-hours Final Examination (40%)

*Textbook*
    D.S. Malik , Thomson, C++ Programming: From Problem Analysis to Program Design, Third Edition, Course Technology, 2007
…………………………………………………………………………………………………..

# 731213, Introduction to Web Programming
3 hours per week, 3 credit hours, prerequisite: **750114**

*Teaching Method:* 18 hours Lectures (1-2 hours per week) + 7 hours Tutorials (1 per 2 week2) + 20 hours Laboratory (1-2 hours per week)

*Aims*: This course is intended to give the student advanced issues in website design and implementation. At the course completion, students will have the know-how of designing and implementing web-based applications, completely database-driven web sites.

The course involves two main parts:
- Advanced client-side programming (i.e., XML-based web sites).
- Advanced server-side programming (i.e., PHP, JavaServlets).

*Textbooks*:
1. Don Gosselin, Diana Kokoska, Robert Easterbrooks, PHP Programming with MySQL. Boston: Course Technology/Cengage L:earning, 2011.
2. Paul Deitel, Harvey Deitel, Abbey Deitel ,Internet and World Wide Web : how to program. Harlow: Pearson Education Limited, 2012.
3. Gosselin, don, PHP Programming with MySQL. Course Technology Incorporated, 2005, ISBN 0-619-21687-5.
4. Deitel & Deitel, "Internet & World Wide Web How to Program", Prentice Hall, 2000.
5. Mairlot, Bruno , et al. Dreamweaver MX: PHP Web Development, glasshaus, 2002.
6. Harris, Andy. PHP/MySQL Programming for the Absolute Beginner, Premier Press, 2003.
7. Ullman, Larry. PHP and MySQL for Dynamic Web Sites: Visual QuickPro Guide, Peachpit Press, 2003.
8. Welling, Luke and Thomson, Laura. PHP and MySQL Web Development, Third Edition, Sams, 2005.

**Synopsis**: HTML: Basics and Programming; Script Languages; Web Servers: Basics and Programming: Introduction to Web Servers, Active Server Pages (ASP),  PHP, Working with Data Types and Operators, String conversion and type juggling, Type casting, Building Functions and Control Structures, Manipulating Arrays, Working with Databases and MYSQL, Regular Expression and Validation.

*Assessment:* Two 1-hour midterm exams (20% each); Course work (15%); Tutorial contribution (5%); 2-hours Final Exam (40%).
…………………………………………………………………………………………………………

# 721240, Computing Ethics
3 hours per week, 3 credit hours, prerequisite: **731110**

*Teaching Method:* 30 hours Lectures (2 hours per week) + 10 hours Seminars (average 1 per week) + 3-5 hours presentations at the end of the semester (depending on the number of students in the class) where students present their work in the essays.

*Aims:* This module aims to give students an informed awareness of the principal issues of professional ethics and responsibility in the design, implementation and use of computer and information systems. In addition, the module aims to help in recognition of ethical problems when they occur, and to enable students to deal effectively with ethical and professional issues now and in their future careers. The module does not require a laboratory, but one group and one individual essay are required. Students are expected to spend 10 - 20 hours preparing for these essays at outside lecturer times. Students are asked at the end of the semester to present their essays.

*Textbooks:*
1. Ayres R., The Essence of Professional Issues in Computing. ISBN 0-13-908740-0, Prentice Hall Europe 1999.
2. Dejoie, R. et al., Ethical Issues in Information Systems. (ISBN 0-878-355-626), Boyd & Fraser 1991.
3. Bott F et al, Professional Issues in Management Information Systems, 3rd Edition (ISBN 0748409513), Pitman 2000, UCL 1995.

*Synopsis:* Introduction to the module, Problems of ethical decision-making, Professional Societies and their codes of conduct and practice, Professionals and Professional Behavior, Discussion of Case Studies: Describing Steps to Resolve the Current Situation, Preparing Policies and Strategies to Prevent Recurrence. Introduction to the Crawling Eye case study, Formal laws do not make for ethics, Graduate careers in the 21st century, Building the foundations to future career success, Concurrent engineering, group working and distributed enterprises, The law and contracts, Safety critical systems and legal liability, Introduction to the Killer Robot case study, A business

view of contracts, IPR and copyright, IPR and patents, Computer misuse and the law, Data Protection, the Act and its implications.

*Assessment:* Two (1 hour) midterm exams (20% each); Assessment by individual essay (10%); Assessment by group essay (10%); 2-hours Final Exam (40%).
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## 731110, Introduction to Information Systems and Technology
3 hours per week, 3 credit hours, prerequisite: **none**

*Teaching Method:* 38 hours Lectures (2-3 hours per week) + 7 hours Tutorials (1 per 2 weeks)

*Aims*: This module aims to provide students with some concepts of information systems and some applications in business and management systems.

*Textbooks:*
1. Information systems today : managing in the digital world, Joe Valacich, Christoph Schneider, Harlow: Pearson Education Limited, 2014.
2. Information Systems Essentials, Editors: Stephen Haag, Maeve Cumming; Published: McGraw-Hill/Irwin, Inc, 2009, Third edition.
3. Gerald M. Weinberg, An Introduction to General System Thinking, Silver Anniversary Edition, 2001.
4. Leonard M and Josef S., Information Systems Foundations, QUE, 1999.

*Synopsis:* Information theory, dynamic systems, concepts and applications in business organizations, information theory and applications, information systems, information systems in management, management information systems, information technology and computer information systems.

*Assessment:* Two midterm exams (20% each); Asignments (15%); Tutorial contribution (5%); 2-hours Final Exam (40%).
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## 721220, Object Oriented Programming
3 hours per week, 3 credit hours, prerequisite: **750114**

*Teaching Method:* 20 hours lectures (1 - 2 hours per week) + 18 hours laboratory (1-2 hours per week) + 7 hours tutorials (1 per week).

*Textbook:*

C++ How to Program, Deitel and Deitel. Last Edition.

*Aims***:** introduction to object-oriented concepts and their programming in an object-oriented programming language.

*Synopsis:* Object-oriented programming focuses on the organization of software as a collection of discrete objects that incorporate both data structures and the operations performed on those structures. This course teaches the basics of object-oriented programming as it applies to business, including class, inheritance, and encapsulation, through the use of a language such as C++ or Java.

*Assessment:* Two 1-hour unit tests (20% each) + Assignments (20%) + 2-hours final exam (40%).
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## 750215, Visual Programming

3 hours per week, 3 credit hours, prerequisite: **0721220**

***Teaching Methods:*** 32 hours lectures (2 hours per week) + 16 hours Tutorials (1 per week) + 32 hours Laboratory (2 per week)

***Aims:*** This module aims to provide students capabilities to design and implement the applications using visual programming through Microsoft Visual Studio .Net and VC# to develop different types of applications using .Net platform**.**

***Learning Outcomes:***
On completion of this module, student will:
1- To be familiar with event driven programming and windows programming concepts (A)
2- To understand GUI programming using .NET platform (A)
3- To be able to develop applications and simple event-driven programs using C# language in the .NET framework.
4- To be able to use 2D and 3D graphics with lines, curves and can implement algorithms to rasterizing shapes and implement them
5- To have the ability to design and implement Group projects (B)
6- To have practical skills in the usage of .NET environment (C)
7- To be able to use C# build-in functions in developing a wide range of applications and graphical tools

***Synopsis****:* Introducing the Microsoft, .NET Platform, Visual Studio.NET IDE, Introducing C# Programming, Object oriented programming concepts, Windows Forms, Graphics, Multimedia, ADO.NET, Multithreading, Networking, ASP.NET

***Textbooks and Supporting Material:***
1- H. M. Deitel & J. Deitel, "Visual C# 2010 How to Program", Prentice Hall, 2010.
2- H. M. Deitel & J. Deitel, "C# How to Program", Prentice Hall, 2005.
3. A.Turtschi et.al. "Mastering Visual C# .Net", Sybex 2002
4. Eric Gunnerson, "A Programmer's Introduction to C#", Apress 2000
5. Anders Hejlsberg et.al., " C# Language Reference", Microsoft Corporation 2000.
6. Erric Buttow et al., "C#, your visual blueprint for building .Net application", Hungry Minds 2002
7. Charles Carroll, "Programming C#", O'Reily & Associates 2000
8. Karh Watson, "Beginning C#", Wrox Press 2001.

**Websites**
www.deitel.com
www.csharp.com

***Modes of Assessment:*** Two 1-hour midterm exams (20% each); Assignments (20%); 2-hours Final Exam (40%).
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## II- The Departments' Major and Supplementary Requirements

## *(a) Supplementary Requirements*

## 250231, Introduction to Probability and Statistics
3 hours per week, 3 credit hours, prerequisite: **none**

***Teaching Method:*** 30 hours Lectures (2 per week) + 15 hours Tutorials (1 per week)

***Aims:*** This module aims to help students grasp basic statistical techniques and concepts, and to present real-life opportunities for applying them.

***Textbooks:***
   1.   *Title: Introduction to probability and statistics  14th ed*
        *Author: William Mendenhall, Robert J. Beaver, Barbara M. Beaver*

*Publisher: Belmont, CA: Brooks/Cole, Cengage Learning, 2013.*

2. D.C. Montgomery and .G.C. Runger, Applied Statistics and Probability For Engineers, 2nd Edition, Wiley, 2002.
3. William, Probability and Statistics in Engineering and Management, Wiley, 2002.

*Synopsis:* Descriptive statistics and probability distribution; Sampling  distribution Estimation for the mean, variance and proportions; Testing for the mean, variance and proportions; Regression and  correlation; One-way analysis of variance.

*Assessment:* Two 1-hour midterm exams (20% each);    Assignments/Quizzes (10%);    Tutorial Contribution (10%); 2-hours Final Exam (40%).
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# 331101, Introduction to Management/ English
3 hours per week, 3 credit hours, prerequisite: **none**

*Teaching Method:* 30 hours lectures (2 hours per week) + 15 hours tutorials (1 per week).

*Textbook:*
Introduction to management,  John R.,Schermerhorn
Bachrach,Daniel G., 13th ed, Singapore : John Wiley & Sons , 2015.

Principles of Management, Fconstainin, Appleton - Century - Croftes. Latest Ed.

*Aims:* Introduction to management focused around the achievement of organizational goals, and covering the major topics of strategy, systems, structure and resources, particularly peoples and money.
*Synopsis:* Introduction: definition and the need for management, The scientific method in studying management, The importance of management, Evaluation of management theory and management schools Planning and management decision -making Organizational charts and the organizational structure ,The importance of directing, Leadership forms and theories ,Motivation ,The communication process Control forms, methods ,and fields of application ,Management evolution and characteristics of poor management . Computer tools and applications are used to support the subjects.

*Assessment:* Two 1-hour unit tests (20% each) + Assignments (20%) + 2-hours final exam (40%).
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# 0250105, Business Mathematics

**Course Description:**

In this course, General Mathematics, we study basic algebra, Algebraic operations, graphs, algebraic expressions and their simplification, linear, quadratic, irrational equations, inequalities, simultaneous equations, some application on economics. Also we study the rules of differentiation, integration, partial differentiation to functions of several variables and their applications on economic. Finally, we study some basic operation on matrices, the inverse and we solve system of equations using the properties of matrices such as Cramer's Rule.

**Textbook:**

1) (**Required**)
Mathematics for Economics and Business By: Ian Jacques 8th Edition. Harlow, England: Prentice Hall, 2015.

Mathematics for Economics and Business By: Ian Jacques 6th Edition.

**2) (Optional - not required – only for those who need extra assistant)**

Student Study Pack for College Mathematics for Business, Economics, Life Sciences, and Social Sciences: Raymond A. Barnett, Michael R. Ziegler and Karl E. Byleen ISBN: 0-13-163170-5

**Allocation of Marks**

|  | Marks | Date | Time | Place |
|---|---|---|---|---|
| **First Exam** | 20% | | | |
| **Second Exam** | 20% | | | |
| **Three Short Exams** | 20% | | | |
| **Final exam** | 40% | | | |

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# 0731450, E-Commerce Law

3 hours per week, 3 credit hours, prerequisite: 0731240

## Course description:

This course aims to introduce students to the principles of E-commerce law along with the concept and issues of E-commerce transactions. And also to help students to understand what constitutes a commercial activity under the Jordanian law. In addition, this course aims to establish a clear understanding of the legal principles for recognizing merchants in accordance with the Jordanian E-commerce law.
Students at the end of this course are expected to gain sufficient knowledge about the legal principles of many E-commerce transactions.

## Course objectives:

A student completing this module unit should:
1. Understand the concept and sources of E-commerce  law.
2. Have knowledge about the types of commercial activities under the Jordanian E-commerce law .
3. Understand the E-commerce law papers (Negotiable instruments).
4. To have a clear understanding of the legal principles for recognizing merchants in accordance with the E-commerce applications law and their legal obligations.

## Course/ module components

- **Books (title , author (s), publisher, year of publication)**
  1. Tood, P, *E-Commerce Law* (Cavendish publishing limited, UK  2010).
  2. Tood, P, *E-Commerce Law* (Cavendish publishing limited, UK  2005).
  *3.* Lloyd, J *Information Technology Law(*OUP Oxford; 5 edition (26 Jun 2008)
  4. Goode, R 'commercial law' (3rd edn Penguin Books London 2004.
  5. Ziadat, A & Alomoush, I 'ALWAJEEZ in the Jordanian Commercial Legislations' ( 2nd edn DAR WA'EL for publishing)
- **Support material (s) (vcs, acs, etc).**
Academic Paper which clarifies the principles of *E-Commerce Law*. (In English)
- **Study guide (s) (if applicable)**
- **Homework and laboratory guide (s) if (applicable).**

## Teaching methods:

Duration: 16 weeks, 45 hours in total
Lectures: 2 per week
Discussion groups: Approximately 1 per week
Assignment:  One assignment.

<u>**Learning outcomes:**</u>
- Knowledge and understanding:
− To discuss the different issues related to *E-Commerce Law*.
− To provide students with a clear understanding of the different *E-Commerce Law* aspects.
- Cognitive skills (thinking and analysis).
− To explain the nature of the knowledge discovery process and its challenges
− To explain the different *E-Commerce Law* aspects and their practical applications.
- Communication skills (personal and academic).
− To discuss the different evaluation methods of *E-Commerce Law*.
- Practical and subject specific skills (Transferable Skills).
− To explain the different *E-Commerce Law* aspects and their practical applications.

<u>**Assessment instruments**</u>

- Short reports and/ or presentations, and/ or Short research projects
- Quizzes.
- Final examination: 50 marks

| <u>**Allocation of Marks**</u> | |
| --- | --- |
| Assessment Instruments | **Mark** |
| First examination | **20%** |
| Second examination | **20%** |
| Final examination: 50 marks | **40%** |
| Reports, research projects, Quizzes, Home works, Projects | **20%** |
| Total | **100%** |

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# 0311101, Principle of Accounting 1/English
3 hours per week, 3 credit hours, prerequisite: **130101**

*Teaching Method:* 30 hours lectures (2 hours per week) + 8 hours Tutorials (1 per 2 weeks) + 7 hours seminars (1 per 2 weeks).

*Textbook:*
Accounting principles, 2014, Jerry J. Weygandt, Paul D. Kimmel, Donald E. Kieso
Singapore: John Wiley and Sons, 2014 -11th Ed.

Accounting principles, 2007, Weygand, Jerry J.| Kieso, Donald E.| Kimmel, Paul D.| -
Hoboken, NJ: John Wiley & Sons_. -7th ed.-xxxii, 1120 p.

*Aims:*
Students should be able to know about accounting principles, assumptions and there effects on financial statement.
Students should be able to know the Balance sheet equation, Realization principle, important of transaction effects, and financial statements.
Students should be able to make Recording Transactions and accounting book keeping.
Students should be able to prepare the double entry transactions and trial balance.
Students should be able to prepare the General Journal, posting to the ledger.
Students should be able to prepare the basic financial statements.

*Synopsis:* This course covers the following topics: Introduction to Managerial Accounting.· Basic Cost terms and Concepts.· Cost Behaviour and Profit Margin.· Relationship among Cost-Volume-profit.· Relevant Information and Decision Making.· Cost Analysis and pricing.· Budgets: Master Budget; Sales Budget; Production Budget; Raw Materials Budget; Labour Budget; Overhead Budget; Cost of Goods Sold Budget; Sales Expenses Budget; Administrative Expenses Budget; Capital Expenditures Budget; Cash Budget; Performa Income Statement; Performa Balance sheet; Performa Cash flow Statements; Participate Budgets; Kaizen Budget.

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## *(b) Department Compulsory Requirements*

## 731220, Introduction to Data structures and Algorithms

3 hours per week, 3 credit hours, prerequisite **721220**

*Teaching Method:* 20 hours lectures (1 - 2 hours per week) + 18 hours Tutorials (1- 2 hours  per week) + 7 hours laboratory (1- 2 hours per 2 weeks).

*Textbook:*
Data structures using C++, D. S. Malik, 2nd Edition 2012, : India: Course Technolog.

*Aims:* This module aims to use truly object-oriented perspective to concentrate on teaching data structures rather than an object-oriented language features. Each data structure is introduced with a corresponding collection classes. Excellent case studies are also included. Any object-oriented language may be used.

*Synopsis:* Introduces students to the basics of data structures (stacks, queues, linked list, …). Introduces algorithmic analysis, string processing, recursion, and file processing techniques. Introduction to Algorithms.

*Assessment:* Two 1-hour unit tests (20% each) + Assignments (20%) + 2-hours final exam (40%).
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## 731221, Database Fundamentals
3 hours per week, 3 credit hours,  prerequisite: **731220**

*Teaching Method:* 30 hours lectures (2 hours per week) + 7 hours Tutorials (1  per 2 weeks) + 8 hours laboratory (1 per 2 weeks).

*Textbook:*
Modern database management , Jeffrey A. Hoffer, V. Ramesh, Heikki Topi, Boston: Pearson, 2016, 12th ed. global edition

R. Elmasri, SB Navarath. Fundamentals of Databases Systems, Addison Wesley 2000.

*Aims:* This module aims to present the relational model and a corresponding DBMS. The DDL and DML must be used on a concrete database.

*Synopsis:* Introduction to database systems. The relational data model & DBMS record structures. Relational algebra, DB design techniques: entity relationship (ER) modelling, normalization, Database Design Language (DBDL). Physical DB design. Relational query languages, SQL, Oracle SQL*Plus, embedded SQL using Java (SQLJ). DB administration, security. Constraints. Enforcing integrity. The system catalogue. Concurrency control, restart and recovery, transaction management.

*Assessment:* Two 1-hour unit tests (20% each) + Assignments (20%) + 2-hours final exam (40%).
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## 731214, Information Systems Management
3 hours per week, 3 credit hours, Prerequisite **731110 + 331101**

*Teaching Method: 3*0 hours lectures (2 hours per week) + 10 hours seminars (1-2 hours per 2  week) + 5 hours tutorials (1 per 2 weeks).

*Textbook:*
Information Systems Management in practice, Barbara C. McNurlin, Ralph H. Sprague, Jr. , Tung Bui, Upper Saddle River, N.J: Prentice Hill/Pearson, 2009, 8th ed.

*Aims:* This topic aims to introduce students to Information Systems strategies and   to Information Systems management.

*Synopsis:* Information definition, information and communication principles, information and message semantics, fundamental elements of communication system, the mathematical semantics of information, information control, information case, information systems in organizations, operating systems, business information systems, secession support systems, database and database systems.

*Assessment:* Two 1-hour unit tests (20% each) + Assignments (20%) + 2-hours final exam (40%).
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## 731343, E-Marketing
3 hours per week, 3 credit hours, prerequisite: **731240**

*Teaching Method: 3*0 hours lectures (1 - 2 hours per week) + 15 hours Tutorials (1 per  week).

*Textbook:*

E-marketing, Judy Strauess, Adel. El-Ansary and Raymond Frost.: Prentice Hall, 6th edition, 2013.

*Aims:* To introduce the concepts of marketing.

*Synopsis:* Definition of marketing, The modern concept of marketing, Consumer behaviour, Behavioural factors affecting consumer demand Consumer behaviour approaches, Buying decisions and buying steps of the ultimate consumer, Market study and fundamentals of market segmentation, Commodities study, Organizing distribution: direct and indirect distribution channels, Marketing functions, Managing marketing functions, Planning in marketing, Marketing strategy and the marketing mix (product differentiation, packaging and pricing) Marketing research. Computer tools and applications are used to support the subjects.

Case studies and CASE tools are used to support the subjects.
*Assessment:* Two 1-hour unit tests (20% each) + Assignments (20%) + 2-hours final exam (40%).
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## 731360, Database Applications
3 hours per week, 3 credit hours, prerequisite **731221**

*Teaching Method:* 30 hours lectures (2 hours per week) + 7 hours Tutorials (1  per 2 weeks) + 8 hours laboratory (1 per 2 weeks).

**Textbook:**
- Title: Oracle database 12c PL/SQL programming.
- Author: Michael McLaughlin
- Publisher:  New Delhi: McGraw Hill Education, 2014.

R. Elmasri, SB Navarath. Fundamentals of Databases Systems, Addison Wesley 2000.

*Aims:* This module aims to present the DBMSs and their applications in business and management.

*Synopsis:* System implementation techniques, Introduction to implementation, Data storage, Representing data elements, Database recovery techniques, Database security and authorization, Advanced database applications, Enhanced data models for advanced applications, Temporal database, Deductive database, Database technology for decision support applications, Distributed database and client server architecture, Emerging database technologies and applications.

Case studies and CASE tools and DBMS are used to support the subjects.

*Assessment:* Two 1-hour unit tests (20% each) + Assignments (20%) + 2-hours final exam (40%).

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# 731321, Systems Analysis and Design

3 hours per week, 3 credit hours, Prerequisite **731221**

*Teaching Method:* 20 hours lectures (1-2 hours per week) + 15 hours Tutorials (1 per  week) + 10 hours laboratory (1 per  week).

*Textbook:*

Title: Essentials of System Analysis and design

Author(s)/Editor(s): Valocich  George Hoffer

Publisher: Pearson  2014.

System Analysis and Design, Kendall and Kendall. Prentice Hall, 2008.

*Aims:* This course aims to provide students with an object-oriented information system development process.

*Synopsis:* Introducing systems analysis and design. The systems analyst roles, attributes, and place. The systems development life cycle (SDLC). Introduction to systems analysis, feasibility studies. System study and system design, implementation and control. Tools for systems analysis and design.

*Assessment:* Two 1-hour unit tests (20% each) + Assignments (20%) + 2-hours final exam (40%).

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# 731340, Fundamentals of Computer Networks

3 hours per week, 3 credit hours, second year, first semester, Prerequisite **731220**

*Teaching Method:* 3 0 hours lectures ( 2 hours per week) + 10 hours laboratory (1-2 hours per 2  weeks) + 5 hours tutorials (1 per 2 weeks).

*Textbook:*

*1-* Data Communications and Networking, ,Behrouz A. Forouzan, Mc GrawHill*,* 4th edition 20*12*

2- Computer Networks and Internets, Douglas E. Comer, Prentice Hall Pub., 2010, 4th  Edition

3- Business Data Communications,  W. Stallings, Prentice Hall, 5th edition, 2005

4- E. Komer. Computer Networks. Latest Edition.

*Aims:* Introduce students into networks and protocols fundamentals particularly TCP/IP.

*Synopsis:* This course looks at the types of information used in the business environment and the implications in terms of communications along with the trend toward digital integration of historically stand alone analogue and digital technologies. It examines the process of converting voice, data, image, and video information into integrated electromagnetic signals for transmission via various media. Coverage includes communications techniques, transmission efficiency methods, wide area networks (WANs), local area networks (LANS), high-speed trends in networking, and communications architectures and subsequent internetworking issues.

*Assessment:* Two 1-hour unit tests (20% each) + Assignments (20%) + 2-hours final exam (40%).

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### 731464, Information Systems Modelling
3 hours per week, 3 credit hours, prerequisite: **731321 + 721220**

*Teaching Method:* 30 hours lectures (2 hours per week) + 8 hours Tutorials (1 per 2 weeks) + 7 hours seminars (1 per 2 weeks).

*Textbook*
1. Object Oriented Analysis and Design For Information  Systems:
   Modeling with UML, OCL and IFML; Raul Sidnei Wazlawick, 2013
   Elsevier.
2. UML for IT Business Analyst; Howard Podeswa; Cengage Learning
   PTR, 2009
3. Software Modeling and Design: UML, Use Cases, Patterns, and Software
                                 Architectures;
   Hassan Gomaa, Cambridge University Press, 2011
4. Business Modeling with UML: Business Patterns at Works;Hans-Erik Eriksson, Magnus Penker; ONG Press, 2000.
5. Terry Quatrani, Grady Booch, Visual Modeling with Rational Rose 2000, Addison Wesley.
6. Booch G. The unified Modeling Language 1999.

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*Aims:* Information Modelling in the Next Millennium is for researchers and practitioners, who seek to understand the latest trends and developments in information modelling. The state-of-the-art and state-of-the-practice of modelling methods and methodologies in information systems development provide insights into important new developments in the new millennium.

*Synopsis:* Approaches to information systems modelling and their use in information systems development and information management. Philosophical foundations of information modelling, a comparison of approaches to information modelling, evaluating the quality of information systems models, information modelling in practice - the information model design process, generic models and patterns, corporate data modelling, the data management role within organizations.

*Assessment:* Two 1-hour unit tests (20% each) + Assignments (20%) + 2-hours final exam (40%).
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## 731316, Information Systems Projects Management
3 hours per week, 3 credit hours, prerequisite **731214**

*Teaching Method:* 30 hours lectures (1 - 2 hours per week) + 15 hours Tutorials (1 per  week).

*Textbook:*
1. Project Management for Information Systems, James Cadle, Donald Yeate, 5th.    Edition, Prentice Hall, 2012**.**
2. Microsoft Office Project 2010 Step by Step, Carl Chatfield, Timothy Johnson. Micro Soft press, 2007.

*Aims*: To introduce the different projects management Technologies.

*Synopsis:* The concept of project management, Stages of the life cycle of the project, Location of project management on the organization chart. Selection of the project manager, Planning for project implementation: project scheduling: CPM and PERT, Acceptance or rejection of the project, Budget and cost control of the project, Feasibility study of the project.

Case studies and CASE tools are used to support the subjects.
*Assessment:* Two 1-hour unit tests (20% each) + Assignments (20%) + 2-hours final exam (40%)
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# 731240, Principles of E-Commerce
3 hours per week, 3 credit hours, prerequisite: **731213**

*Teaching Method:* 30 hours lectures (2 hours per week) + 5 hours Tutorials (1 hour per 2 weeks) + 10 hours laboratory (1 per week).

*Textbooks:*

1. Electronic commerce 2012: a managerial and social networks perspective, Efraim Turban ... [et al.] Boston: Pearson, 2012.
2. Electronic Commerce: A Managerial Perspective, E. Turban, D. King, J. Lee, and D. Viehland., Prentice Hall, 2004.
3. E-Commerce: Fundamentals and Applications, H. Chan, R. Lee, T. Dillon, E. Chang., Wiely & Sons, 2004.

*Aims:* This module aims to introduce Electronic Commerce basis, tools and applications.

*Synopsis:* Introduction to e-commerce, sales and marketing, globalization, company profiles, architecture, commerce server, vendor solutions, payment systems, and security, auction technology, project deployment.

*Assessment:* Two 1-hour unit tests (20% each) + Assignments (20%) + 2-hours final exam (40%).
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# 731330, Decision Support Systems
3 hours per week, 3 credit hours, Prerequisite  **731316**

*Teaching Method:* 30 hours lectures (2 hours per week) + 10 hours seminars (1-2 hours per 2  week) + 5 hours tutorials (1 per 2 weeks).

*Textbooks:*
1. Turban, E., Aronson, Liang. (2012). Decision Support and Business Intelligent Systems.   9th edition, Prentice Hall
2. Title: Decision support systems in the 21$^{st}$ Century.
3. Author: George M. Marakas,
4. Publisher: 2$^{nd}$ edition, Pearson Education, 2010
5. George M. Marakas (2003) Decision support systems in the 21$^{st}$ Century. 2$^{nd}$ ediction, Pearson Education.
6. John A. Lawrence, Jr and Barry A. Pasternack (2002) Applied Management Science. 2$^{nd}$ Edition, John Wiley & sons Inc.

*Aims:* This topic aims to introduce students to decision making strategies.

*Synopsis:* Decision support systems background, comparison between decision theory, operation research and artificial intelligence. Introduction to decision theory, decision and research operation and AI, Multi criteria decision, thinking and case-based decision making, decision making cases and causes, interactive decision support systems.

*Assessment:* Two 1-hour unit tests (20% each) + Assignments (20%) + 2-hours final exam (40%).
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# 731423, Data Mining
3 hours per week, 3 credit hours, prerequisite: **731360**

*Teaching Method:* 30 hours lectures (2 hours per week) + 10 hours seminars (1-2 hours per 2 weeks) + 5 hours tutorials (1 per 2 weeks).

*Textbooks:*

1. Tan, P-N, Steinbach, M., Kumar, V. Introduction to Data Mining. Addison Wesley, 2014.
2. Tan, P-N, Steinbach, M., Kumar, V. **Introduction to Data Mining**.Addison Wesley, 2008.
3. Witten, I., and Frank, E. Data mining: practical machine learning tools and techniques with Java implementations. San Francisco: Morgan Kaufmann, 2001.

*Aims***:** An introduction to the concepts of data warehousing and data mining.

*Synopsis*: An introduction to the concepts of data warehousing and data mining as it applies to the data warehouse system environment. Data mining models, methodologies, techniques, and common operational issues will be covered.

*Use CASE tools and other software to support course materials.*

*Assessment:* Two 1-hour unit tests (20% each) + Assignments (20%) + 2-hours final exam (40%).
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# 731443, Information Systems Security
3 hours per week, 3 credit hours, Prerequisite **731340**

*Teaching Method:* 25 hours lectures (1 - 2 hours per week) + 5 hours Tutorials (1  per 2 weeks) + 15 hours laboratory (1 hour per  week).

*Textbook:*
1. Tan, P-N, Steinbach, M., Kumar, V. Introduction to Data Mining. Addison Wesley, 2014.

*Aims:* This topic aims to provide students with information security concepts, techniques, tools, and practice.

*Synopsis:* Review of information security components, principles, problems. Types of threats, including hackers, viruses, natural disasters, fraud. Information security philosophies, methods, models, techniques and controls, including risk analysis, access matrices, passwords, smart cards, and auditing. Information security for different applications. Internet security. Ethical and legal issues. Computer crime. Information security management and policy. Internet security management and policy. Information security in the future.

*Assessment:* Two 1-hour unit tests (20% each) + Assignments (20%) + 2-hours final exam (40%).
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# 731433, Knowledge Management
3 hours per week, 3 credit hours, prerequisite **731330**

*Teaching Method:* 20 hours lectures (1 - 2 hours per week) + 15 hours laboratory (1 per  week) + 10 hours tutorials (1 per  week).

*Textbook:*
Irma Becerra-Fernandez, Gonzalez, A., Sabherwal, R; Knowledge Management: Challenges, Solutions, & Technologies; Prentice Hall; 2010.

Wiig Karl M, Knowledge management, Schema press, Latest Edition.

*Aims:* This topic aims to select an information systems or information management viewpoint to examine concepts of knowledge management (KM) from perspectives including artificial intelligence, document management, organizational and management theory.

*Synopsis:* Relationship of science, knowledge vs data and information; sources and forms of knowledge, Views and characteristics of KM; knowledge acquisition and modelling; information science in knowledge management context; science and systems thinking; artificial intelligence and KM, organizational modelling - soft systems, organizational memory and learning; documenting knowledge: documents in electronic environment, meta-data; classification, business analysis, intranets as knowledge management technology; knowledge management

environments: intranet and workflow; information support for decision making. Explicit and implicit knowledge, and techniques for modelling knowledge in decision making processes.; workflow approaches to KM; developing knowledge systems: evaluation of the knowledge requirements of organizations; knowledge elicitation techniques; techniques for validation of knowledge; strategies for applying KM in organizations.

*Assessment*: Two 1-hour unit tests (20% each) + Assignments (20%) + 2-hours final exam (40%).
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# 731241, Multimedia Systems
3 hours per week, 3 credit hours, prerequisite: **731110**

**Teaching Method:** 37 hours Lectures (2-3 hours per week) + 8 hours Tutorials (1 per 2 weeks)

**Aims:** This module is an introduction to the major topics related to multimedia (desktop publishing, hypermedia, presentation media, graphics, animation, sound, video, and integrated authoring techniques), multimedia devices and development tools. It emphasizes hands-on experience for students to familiarize them with the range of tools used in creating computer-based multimedia.

**Textbooks:**
1. Vaughan, Tay, Multimedia: Making it work, New York : McGraw-Hill, 2014, $9^{th}$ Edition.
2. Jen Dehaan, Macromedia FLASH MX 2004, training from the source, Macromedia press, 2004.
3. Vaughan, Tay, Multimedia: Making it work, Berkeley Osborne McGraw-Hill, $4^{th}$ Edition1998.
4. Stephen McLoughlin, Multimedia: Concepts and Practice, Prentice hall, 2001.

**Synopsis:** Introduction to Multimedia: Basic concepts, Applications (video on demand, Videoconferencing, virtual learning, entertainment, games, simulations, virtual reality…), Multimedia Hardware, Multimedia Software Tools (Overview on current available tools), Desktop Publishing, Graphics, Pictures: graphic modes and formats, still pictures and format (JPEG…), User Interface Design and Graphics: Graphic Elements and user interface considerations (Backgrounds, buttons, presentation elements), Production Planning and Design: (Research, content flow, Content acquisition, Multimedia team management using project management software, Budgeting considerations, Element and resource lists), Audio and Sound, Analogue Video (1), Digital video (2), Animation, Authoring, Hypermedia Authoring: Authoring: Web Based Multimedia, Multimedia Compression: Overview on techniques and standards.

**Assessment:** Two 1-hour midterm exams (20% each); Project work (10%); Assignments (10%); 2-hours Final Exam (40%).
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# 731415, Operations Research for Business
3 hours per week, 3 credit hours, prerequisite: **250105 + 250231**

**Teaching Method:** 20 hours lectures (1 - 2 hours per week) + 15 hours laboratory (1 per week) + 10 hours tutorials (1 per week).

**Textbook:**

- *Title:* Introduction to Operations Research
  Author(s)/Editor(s): Hiller Lieberman

  *Publisher:* $9^{th}$ edition, McGraw Hill, 2014.

- *Title:* Operations Research An Introduction
  Author(s)/Editor(s): Hamdy A. Taha

  *Publisher:* $9^{th}$ edition, Prentice Hall, 2011.

**Aims**: To introduce the concepts of operation researches in different business and management applications. Introduction to quantitative analysis: its importance and uses, Introduction to probability distributions, Decision theory, The utility theory and decision - making Linear programming methods:

Case studies are used to support the subjects.

*Assessment:* Two 1-hour unit tests (20% each) + Assignments (20%) + 2-hours final exam (40%).
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# 731360, Database Applications
3 hours per week, 3 credit hours, prerequisite: **731221**

*Teaching Method:*
Duration*: 16 weeks in first semester, 48 hours in total*
Lectures*: 35 hours, 2 per week*
Optional Tutorials/Lectures*: 13 hours, (average 1 per week)*
Assignments: *9 Assignments*

*Aims:*
2.      To review with students relational database  main concepts
3.      To understand the different types of SQL statements, DML and DDL
4.      To study the different types of Oracle user-defined objects especially Functions, Procedures, Cursors, Triggers, and Packages
5.      To study Oracle GUI development tools such as Oracle Developer 6i, and Oracle Report Writer
6.      To help students utilize Oracle programming language in their final year projects

*Textbooks:*
• Title: Oracle database 12c PL/SQL programming.
• Author: Michael McLaughlin
• Publisher:  New Delhi: McGraw Hill Education, 2014.

• **Text Books (title , author (s), publisher, year of publication)**
• Title: Programming Oracle.
• Author: Kevin Owens
• Publisher:  3$^d$ edition, The Prentice Hall, 2004.

*Synopsis:*
relational database  main concepts ,database systems programming, Oracle, types of SQL statement, PL/SQL blocks, Cursors, Stored and user-defined Procedures, stored and user-defined Functions, Packages, Graphical user interface programming tools within Oracle especially Oracle Developer, and Oracle Report Writer. SQL statements, DML and DDL, Oracle user-defined objects especially Functions, Procedures, Cursors, Triggers, and Packages,

*Assessment:*
   • Short reports, Assignments, Projects, Quizzes, and/or Home works (20%)
   • First exam (20%)
   • Second exam (20%)
   • Final exam (40%)
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# 731465, E-Commerce Applications Development
3 hours per week, 3 credit hours, prerequisite: **731240 + 750215**

*Teaching Method:*
**Duration**: 16 weeks, 64 hours in total
**Lectures**: 32 hours, 2 per week
**Tutorial**: 16 hours, 1 per week
**Laboratories**: 16 hours, 1 per week
**Assignments:** 5 Assignments

*Aims:*

- To study EC Framework, major types of EC transactions, E-commerce technology and the main concept of Business Models, Business Plan, and Business Case.
- To understand the main concept of Web Security: Electronic Payment Systems and their Security.
- To learn how to build dynamic commercial and corporate Web site using client-side scripting with VBScript language.
- To learn how to build dynamic commercial and corporate Web site using server-side scripting with ASP and VBScript.
- To Integrate ASP (PHP) with databases using ActiveX Data Objects (ADO) or (MYSQL).
- To learn object-oriented programming principals.
- To gain experience writing programs (scripts) in VBScript language, ASP (PHP)  and ADO (MYSQL).technologies.

*Textbooks:*
1. *E-Business and E-Commerce*, H. M. Deitel, P. J. Deitel and T. R. Nieto, Prentice hall, 2012.
2. Developing distributed and E-commerce applications. Ince,Darrel, Harlow, England :Addison-Wesley،2010.
3. Developing e-Commerce sites: an integrated approach, Sharma,Vivek Sharma,Rajiv, Boston: Addison - Wesley, 2009.
4. *E-Business and E-Commerce*, H. M. Deitel, P. J. Deitel and T. R. Nieto, Prentice hall, 2001.
5. Developing distributed and E-commerce applications. Ince,Darrel, Harlow, England :Addison-Wesley،2002.

Developing        e-Commerce        sites:        an        integrated        approach,        Sharma,Vivek Sharma,Rajiv, Boston: Addison - Wesley, 2000.

*Synopsis:*
E-Commerce web application., EC Framework, major types of EC transactions, E-commerce technology and the main concept of Business Models, Business Plan, and Business Case ,EC Application design and deployment, business applications that leverage off the World Wide Web, firewalls and transactional security, intelligent agents, and electronic payment systems, building an online store, Active Server Pages (ASP) and database language SQL. Or PHP & Mysql,

*Assessment:*
- Short reports and/ or presentations, and/ or Short research projects:
- Quizzes:
- Home works: one Web-based E-Commerce Application (project ), 20 marks
- Final examination: 40 marks

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## 731324, Business Requirements Analysis
3 hours per week, 3 credit hours, prerequisite: **731321**

*Teaching Method:*
Duration   : 16 weeks, 48 hours in total
Lectures    : 42 hours, 3 hours per week, (including two 1-hour midterm exams)
Seminars   : 6 hours (in last 2 weeks)

*Aims:* To give the students understand a broad overview of the business requirements analysis and specification process. This module is designed to help the business analyst decide which requirement artifacts should be produced to adequately analyze requirements.

*Textbooks:*
Title: Getting it Right: Business Requirements Analysis Tools and Techniques.
Author(s)/Editor(s): Kathleen B. Hass / Don Wessels / Kevin Bernnan.

Bookseller: Revaluation Books
ISBN: 1567262112/ 1-56726-211-2

*Synopsis:*
Requirements, analysis and specifications, business information systems, artefacts, analyzing requirements, Specifying requirements, Business Requirements Analysis Tools and Techniques, system development life cycle, Enterprise architecture, modelling, Business process redesign, re-engineering, workflow systems.

*Assessment:* Two 1-hour midterm exams (20% each); Assignments (20%); 2-hours Final Exam (40%).
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## 731340 Fundamentals of Computer Networks

3 hours per week, 3 credit hours, prerequisite: **731220**

*Teaching Method:*
40 hours Lectures (2-3 per week) + 8 hours Tutorials.

*Aims:* The aims of this module are to introduce the basic principles of computer network and how the network is working. Type of the topologies and the technologies are also given. The module, however, does not focus on the detailed study of mathematical aspects. Bottom up is the approach used to teach this module.

*Textbooks:*
 1- Data Communications and Networking, ,Behrouz A. Forouzan, Mc GrawHill, 4th edition 20*12*
2- Computer Networks and Internets, Douglas E. Comer, Prentice Hall Pub., 2010, 4th  Edition
3- Business Data Communications,  W. Stallings, Prentice Hall, 5th edition, 2005 **-**
4-Data Communications and Networking, ,Behrouz A. Forouzan, Mc GrawHill, 4th edition 2007
5- Computer Networks and Internets, Douglas E. Comer, Prentice Hall Pub., 2004, 4th  Edition
6- Business Data Communications,  W. Stallings, Prentice Hall, 5th edition, 2005

*Synopsis:* Networks Models, OSI Model, TCP/IP, Transmission Media and Transmission modes, Multiplexing, Switching Technology: Packet Switching, Virtual Circuit Switching, Cell Switching, Switch Technologies, LAN and WAN.

*Assessment:* Two 1-hour midterm exams (20% each) + Lab work and Coursework (15%) + Tutorial Contribution (5%) + Final (unseen) exam (40%).
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## 731370, Practical Training
3 hours per week, 3 credit hours, prerequisite: Department Agreement (student can take this module on completing 81 credit hours at least).

*Aims:* The main aim of this module is that students will have practice in different industrial, commercial, administrative enterprises or companies. By this module, students may apply, in the real world, what they have learned during the first three years of their study in the University. The module also aims to teach students how to be self-confident when they face problems in their practical life.

*Duration:* At least 9 weeks (18 training hours per week at least). This may be distributed onto two semesters at most.

*Regulations for Training:* Students who register on practical training module should not register on modules with total credit hours more than 15 hours per week including the training module itself. Students must, therefore, be full-time trainees for at least 2 days per week. Students should arrange their timetable for other modules in a way that enables them to enroll in the pre-specified enterprise or company at least two days per week during the semester period.

*Assessment:* A committee from the Department supervises the students along their training period, where one supervisor is assigned on one group of students. The student should submit a technical report to this committee in 2 weeks time after completing the training session. In addition, the trainer body presents a report to the committee. The grade "pass" is given to students who complete the training requirements successfully and discuss their reports with the supervision committee.

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# 0731480, Research Project (1)

3 hours per week, 3 credit hours, prerequisite: 90 hours + Dept. Approval

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# 0731482, Research Project (2)

3 hours per week, 3 credit hours, prerequisite: 0731480

*General Descriptions:*
The graduation project consists of a single project on which the student works over a period
of 32 weeks (2 semesters). It is assumed that the student spends a nominal 192 hours (or 384 hours), the equivalent of 12 hours per week, working on this. There are three deliverables:
demonstration, discussion, and a written report. A student works under the supervision of a member of staff, the Supervisor. Most of the projects involve three students working together on the same project; apart from these, all students do different projects.

*Aims:* The aims for the project work done in the fourth year are:
1- To manage and execute a substantial project in a limited time.
2- To identify and learn whatever new skills are needed to complete the project.
*Philadelphia University Faculty of Information Technology MIS Handbook 2011 – 2012*
3- To apply design and engineering skills in the accomplishment of a single task. In this
context the skills mentioned may be in the general area of design and engineering in its broadest sense, or may be very specifically related to particular tools.
*Textbook:* C. W. Dawson, the Essence of Computing Projects, A Student's Guide. ISBN 0-13-021972-X, Prentice Hall, 2000.
The projects list and notes for guidance in carrying out a project are available in the Graduation Project Committee.
*Assessment:* Supervisor mark: 35%; Project Examination Committee mark: 65% (demonstration 20%, Report 25%, discussion 20%).

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