

Templates for Annual Course Reports

University: El Fayoum **Faculty:** Computers and Information Systems
Department: Information System

Course Report

A- Basic Information

- 1. Title and code:** Analysis and Design of Algorithms - CSC 340
- 2. Programme(s) on which this course is given:** B.Sc degree in Computer Science
- 3. Year/ Level of programmes:** Third year – First term

4. Units/Credit hours: 3 hrs/ week
Lectures Tutorial/Practical Total: 7 hrs/ week

5. Names of lecturers contributing to the delivery of the course

Lecturer: Dr. Hisham A. Kholidy
Lecturer Assistants: Eng. Abdelrhman El Shafaei and Eng. Ahmed Salama

Course co-ordinator: Eng. Abdelrhman El Shafaei

External evaluator:

B- Statistical Information (Academic Year 2015 – 2016)

No. of students attending the course: No. 98.8%
No. of students completing the course: No. 98.8%

Results:

Passed: 89% Failed: 11 %

Grading of successful students:

Excellent: 4 % Very Good: 10.8 %

Good: 25.6 % Pass: 59.4 %

C- Professional Information

1 – Course teaching

W	Topics actually taught	No. of hours	Lecturer
1	Algorithm concept.	7	Dr. Hisham A. Kholidy + Lecturer Assistants
2	Analysis and complexity.	7	Dr. Hisham A. Kholidy + Lecturer Assistants
3	Design methods: Divide and conquer: The general method,	7	Dr. Hisham A. Kholidy + Lecturer Assistants
4	Binary search, merge sort, quick sort, selection, matrix multiplication.	7	Dr. Hisham A. Kholidy + Lecturer Assistants
5	Greedy method: The general method, minimum spanning Trees.	7	Dr. Hisham A. Kholidy + Lecturer Assistants
6	Dynamic programming: The general method, shortest paths. traveling salesman problem.	7	Dr. Hisham A. Kholidy + Lecturer Assistants
7	Mid Term	1	
8	Backtracking: The general method, the 8-queens Problem.	7	Dr. Hisham A. Kholidy + Lecturer Assistants
9	Optimization Algorithms: Particle Swarm Optimization (PSO).	7	Dr. Hisham A. Kholidy + Lecturer Assistants
10	NLP (Natural Language Processing) Algorithms: Global, Local, Semi-Global Alignment Algorithms.	7	Dr. Hisham A. Kholidy + Lecturer Assistants
11	Security Algorithms: Symmetric and Asymmetric Encryption Algorithms.	7	Dr. Hisham A. Kholidy + Lecturer Assistants
12	Probabilistic and Stochastic Algorithms: Markov Model (MM), Hidden Markov model (SVM).	7	Dr. Hisham A. Kholidy + Lecturer Assistants
13	Practical Exam	1	Dr. Hisham A. Kholidy + Lecturer Assistants
14	Final Exam	3	

Topics taught as a percentage of the content specified:

>90 % 70-90 % <70%

2- Teaching and learning methods:

Lectures: 13

Practical training/ laboratory: 13 + 2 hours Section

Class activity: 2

Case Study: 3

Other assignments/homework: 3

3- Student assessment:

Method of assessment	Percentage of total
Written examination	65%
Practical/laboratory work	15%
Other assignments/class work	10%
Total	100%

Members of examination committee

Dr. Hisham A. Kholidy + Lecturer Assistants

Role of external evaluator:

Evaluate the quality of the course materials and investigate the matching between the course contents and the desired learning objectives.

4- Facilities and teaching materials:

- a) Lectures
- b) Tutorials
- c) Computer-lab Sessions
- d) Practical lab work
- e) Class discussions
- f) Internet searches
- g) Independent Work
- h) Group projects
- i) Problem-based Learning
- j) Books:
 - Essential Books (Text Books):
T.H. Cormen, C.E.Leiserson and R.L.Rivest: "Introduction to Algorithms", MIT Press, Cambridge, MA.
 - Recommended Books:
Thomas Cormen, Charles Leiserson, Ronald Rivest and Clifford Stein, Introduction to Algorithms, MIT Press.

5- Administrative constraints

List any difficulties encountered

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6- Student evaluation of the course: Response of course team

List any criticisms:

Students asked for more practical tutorials and we considered their request.

7- Comments from external evaluator(s): Response of course team

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8- Course enhancement:

Progress on actions identified in the previous year's action plan:

Action State whether or not completed and give reasons for any non-completion

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9- Action plan for academic year 2015 – 2016

Actions required Completion date Person responsible

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Course coordinator:

Signature:

Date: 11/12 /2016