Field Training
InternshipHandbook

Field Training | COMP 492
Abrar Alotaibi - 201220173

Computer and Information Systems Department
Computer Science Program

Contents

Introduction

The aim of practical training (which is scheduled to be conducted during summer) aims to provide our (Computer science, Information system and Health information system) students with a sound foundation of theoretical and practical hands on knowledge and experience in the field of computer and information sciences. The training will provide students insight into applying knowledge and skills that they have learned throughout their study to solve real-life problems, integrating themselves in the real-world work environment, observe ethical behavior through their work, and understand various realistic constraints under which the work must be done.

Practical Training Requirement

In order for the student to apply for practical training, he/she should satisfy the following:

1. Finish at least 95 credit hours.

2. Has no academic suspension.

3. Has no financial dues (tuitions or other financial dues).

4. Training should be at Computing or IT department within private or public agency.

Goals and Objectives

The goals or objectives of the Field Experience are to:

1. Provide students with real world experiences in "responsible living and meaningful work".

2. Demonstrate a student's ability to use technology in a workplace environment.

3. Demonstrate a student's ability to work and communicate with a variety of other people in the workplace.

4. Demonstrate a student's ability to act professionally.

5. A student majoring in Computer Science and Information System must participate in one or more of the following activities while working on the field training experience. These activities should be in an organization that has one or more persons that are developing and managing information systems and technical solutions for field related problems. During the field experience, the student may complete other tasks, but a significant portion of the field experience must involve most of the activities below:

1. Systems Analysis
2. Systems Design
3. Web Development
4. Systems Programming
5. Applications Programming
6. Database Development and Administration
7. Network Administration and Configuration
8. System Documentation
9. User/Operator Procedure Documentation
10. User Training

Internship in health information system program is covered in two rotations. Rotation 1 consists of 200 hours offering training in all major disciplines (stages) of health information and include the activities listed above. Rotation 2 is of 200 hours duration and intern has a choice to take this rotation period in the hospital in elective or extra training sites or to take it in a health office and/or a directorate of health affair. Training at directorate of health affair to make interns familiar with the daily routine work and to be aware of the activities and functions of different departments as planning and follow up, recruitment, budget, medical licensing, health economics, and training.

Training at health office to make interns familiar with the mission and objectives of the center and to be aware of the administrative framework, job duties for each member of the health team, different forms used, policies and procedures, daily routine work, activities and functions of different departments and primary health care elements. The tasks (what intern may learn) for each training stage is listed in different sections.

Training Opportunity and Locations
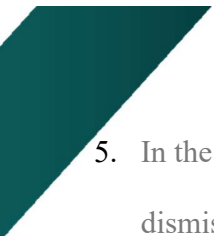
Training should be in Riyadh city. The practical training committee shall try its best to find training opportunities for the students, however, the students may suggest a training opportunity at any recognized IT private or public agency that may satisfy the purpose of the training.

Training Length

The student should finish at least 400 hours of training (50 working days of training) at locations suitable for interns discipline (CS, IS or HIS).

Training Procedures

1. The practical training committee contacts the training agency to get the training opportunities by sending an official letter. The student may participate to pass the letter to the training agency to speed up the process.

2. Students are not allowed to register any course with the practical training.

3. Students must commit to the attendance policy at the workplace in which he/she must be present at the training agency on daily basis for at eight weeks /8 working hours, with the total of 50 working days and 400 training hours.

4. Training student must abide to the regulations and working disciplines of the training agency.

5. In the case that, the student did not adhere to the training agency regulation, the student may be dismissed from the training, and ask to re-do the training at a different training agency.

6. The practical training committee arrange with the training agency to appoint a preceptor that supervise the trainee.

7. The practical training committee passes the training guidelines, expected training outcomes, and evaluation forms to the preceptor, and follow up with him/her to assure the training is going as planned.

8. The practical training committee should keep contact with the preceptor for the continuous evaluation of the trainee till the end of the training period.

9. The preceptor should pass the evaluation form signed to the practical training committee coordinator.

10. The practical training committee coordinator arrange with the training student for the presentation's day and time as well as the deadline for training final report submission.

Attendance Policy

1. Students must adhere to the working hours on daily basis.

2. Late attendance cases, treated as 3 late attendances are considered as one full day absence (2% absence).

3. Student will fail the practical training and must re-do the practical training when reaching 10% of absence (5 days of absence).

Training Evaluation Policy

1. The student practical training is evaluated based on the following:

    a. *The evaluation of the preceptor at the training agency according to the training plan using the preceptor's evaluation form.*

    b. *The evaluation of the presentation of the trainee at the practical training committee.*

    c. *The evaluation of the final report of the trainee.*

    d. *Students are required an oral presentation to discuss his experience.*

2. The practical training committee evaluates the overall performance of the trainee based on the above criteria, and decides to pass or fail the training student.

3. In the case that the student has failed in the practical training, he/she should repeat the training within a different training agency.

Report Guidelines

The practical training technical report is a documentation of the student's experience in the internship. Every intern must submit a technical report describing his/her internship in terms of the nature of his/her assigned tasks, relation to the student major, description of the learned/practiced skills with respect to the internship learning outcomes. The technical report of the summer internship should maintain the following:

1. Must be written in English

2. Should contain at least 3500 words

3. The pages should be single sided with one column, and double-spaced format.

4. The font should be "New Times Roman" or "Arial" with size 12, with bold for headlines and regular for text.

5. The student should submit 3 bounded hardcopies of the report printed on white standard size (A4) paper.

6. The student should keep a record of the daily activities and achievements to be used when writing the report.

7. The report should follow the following format:

a. *Frontal matter*: the report should have the following frontal matters:

    i. *Cover page that contains the title of the report, the author name, preparation date.*

    ii. *The table of contents*

    iii. *List of tables and list of figures if any.*

b. *Abstract/Executive summary*: this part should be no more than one page summarizing the internship or training by describing the company or establishment, and short description of the major duties, tasks, and activities performed during the internship period, as well as very sort summary of the learned skills.

c. *Introduction*: The report should start with an introductory paragraph describing the internship and its objectives. This section should, in general, describe the nature of company or establishment in which the internship took place in terms of its business, products, services, and customers. Also, you should provide the training supervisor name and position as well as the starting and ending dates of the internship or training.

d. *Training Activities*: this section should describe the type and nature of the assigned duties, tasks, responsibilities, activities, and how they are related to your specialty or major. Do not explain the day-to-day activities, you should describe each duty/task/activity in general and how it relates to your classroom knowledge or skills.

e. *Achievements (Skills Learned/Practiced)*: this section is considered as an assessment of the achievement that you gained, and should explain the skills that you have learned and practiced, or exposed to with respect to the internship learning outcomes (see appendix) as well as the expected outcomes identified in the practical training plan prepared by the company/establishment. You should support your explanation with evidence such as awarded certificates, some developed artifact (developed system, design, prototype, other documents, etc). Do not write theoretical citation from class notes or textbooks; just describe what you did there and what experiences you have gained throughout your training.

f. *Conclusions and Observations*: a summary of your experience in the internship, which should highlight the major skills/knowledge obtained as a result of the internship program. Also, you should include your observations of the internship which may lead to practical training improvement.

g. *Acknowledgements:* Acknowledge those who deserve "thank you" from you if any.

h. *Appendices:* any supplementary materials and/or samples of work done in internship (program codes, pictures, graphs, etc.).

i. *References:* if any.

Internship Learning Outcomes

1. Apply knowledge and skills they learned in previous classes to solve real-life problems.

2. Understand the work assigned in the internship and be able to perform it within the allocated time.

3. Be able to integrate themselves in the work environment and develop professional relationships.

4. Acquire a good understanding of work organization in a real-life environment.

5. Communicate and explain effectively their work (written through report and spoken through oral presentation).

6. Work independently and in a team.

7. Work with people having different backgrounds.

8. Observe ethical behavior through their work.

9. Understand various realistic constraints under which the work must be done.

10. Get familiar with various application domains of Information Systems/Computer Sciences.

11. Use various Information Systems/Computer Sciences tools.

12. Work on project/tasks of a reasonable complexity.

13. Learn new knowledge and skills required to realize the project in an independent way through the guidance of the supervisor.

Field training Requirements

1. The students must complete at least 95 credit hours.

2. The students are not allowed to take other courses during summer training

3. During internship period interns have to demonstrate following responsibilities:

- All interns should produce required vaccination document. (For health information system students).

- Perform training in accordance with training site policies and procedures at each training stage.

- All interns should comply with dress code specified by the training site.

- The intern usually spends at least 8 hours daily, 5 days/week or follows the working hours of site where intern is being trained.

- Interns must refrain from unsafe and unprofessional conduct.

- Exhibit professional behavior as health management professional.

- Perform assigned work with responsibility.

- Adhere with training site rules and regulations.

- Attempt to establish good working relationships with all personnel with whom they come in contact during the internship period.

APPENDIX: Training Forms

1.1 *Agreement letter*

Dear Intern,

Please read carefully Rules, Regulations and Guidelines stated for internship period. Sign the statement below to ensure that you understood all contents of internship and agree to adhere to the Rules, Regulations and Guidelines.

I have read, understood, and agree to adhere to the Rules, Regulations and Guidelines statedin Computer and information system internship Handbook.

Intern Name:_____Abrar Alotaibi_____

University ID No: _____201220173

Signature: _____

Application Development Department

Application Development is one of the most important sections for Shura Council (مجلس الشورى) , in which for developing and modifying the source code for software applications . These applications are aimed at aiding Staff with computer tasks or programs . This report focuses on the training activities of Systems Analysis, Systems Design, Applications Programming, and User Training.

Training Activities :
1. Systems Analysis .
2. Systems Design .
3. Web Development .
4. Testing .
5. Database .
6. Mobile application development .

Systems Analysis

Systems Analysis is the process of studying a system's requirements and designing a solution to meet those requirements.

The activities involved in Systems Analysis include :

1.   Identifying the problem: must identify the problem that needs to be solved and define the scope of the project .

2.   Gathering requirements: must gather requirements from stakeholders to understand the system's needs an limitations .

3.   Developing a solution: must develop a solution that meets the system's requirements and aligns with the stakeholders' expectations .

Web Development :

Web Development involves designing and creating websites and web applications that meet the system's requirements .

The activities involved in Web Development include :
1. Developing the website structure: must design the website's structure, including its pages , navigation , and user interface .

2. Creating web content: must create web content, including text, images, and multimedia, that meets the system's requirements.

3. Functionality : must implement website functionality , including client-side and server-side scripting , to create a dynamic and interactive web application .

4. Testing the web application : must test the web application to ensure that it meets the system's requirements and functions correctly .

Testing

Testing is software testing that focuses on testing the interactions between different components or modules of a software system. The goal is to identify and resolve defects that arise when different components are combined, ensuring that the system works as expected as a whole.

During testing, various types of testing techniques can be used, including:

1. Functional testing: This type of testing focuses on verifying that the system's functionality is working as expected when the components are integrated.

2. Performance testing: This type of testing evaluates the system's performance when different components are integrated. It includes testing for response time, throughput, and scalability.

3. Security testing: This type of testing evaluates the system's security when different components are integrated, including testing for vulnerabilities and potential security threats.

4. Error handling testing: This type of testing evaluates how the system responds to errors, exceptions, and unexpected events when different components are integrated.

Database :

Database is an essential component of software development , which involves the organization , storage, and retrieval of data in a structured format .

The training activities involved in Database in Field Training include :

1.   Database implementation: must implement the database schema using a database management system (DBMS) such as MySQL , Oracle , or SQL Server .

2.   SQL (Structured Query Language) : to insert, update, or delete records and perform queries to extract the required data.

1.3 Internship Presentation & Report Evaluation Form

Student Name	Student ID		Major	
E-mail	**Work Tel No.**		**Mobile No.**	

Evaluation Factor	Excellent	Good	Acceptable	Poor
Clarity of Purpose	✓			
Overall Organization and Presentation	✓			
Technical Content: [Training Activities / Achievements i.e., Skills Learned/Practiced / Conclusions and Observations]	✓			
Presentation Skills: [Spoke clearly / made eye contact/ stayed in time limit/ looked at audience]	✓			
English: [Grammar/ spelling/ formatting]		✓		
Discussion: [Participated in question answering/ interactive]	✓			

1.4 Preceptor Evaluation Form

Student Name	Student ID	Major		
Abrar ALOTaibi	201220173	Computer Science		
E-mail	Work Tel No.	Mobile No.		
201220173 @ Student .um.edu.Sa		0542833313		

Evaluation Factor	Excellent	Good	Acceptable	Poor
Apply knowledge and skills they learned in previous classes to solve real-life problems.	✓			
Understand the work assigned in the internship and be able to perform it within the allocated time.	✓			
Be able to integrate themselves in the work environment and develop professional relationships.	✓			
Acquire a good understanding of work organization in a real-life environment.	✓			
Communicate and explain effectively their work (written through report and spoken through oral presentation).	✓			
Work independently and in a team.	✓			
Work with people having different backgrounds.	✓			
Observe ethical behavior through their work.	✓			
Understand various realistic constraints under which the work must be done.	✓			
Get familiar with various application domains of Information Systems/Computer Sciences.	✓			
Use various Information Systems/Computer Sciences tools.	✓			
Work on project/tasks of a reasonable complexity.	✓			
Learn new knowledge and skills required to realize the project in an independent way through the guidance of the supervisor.	✓			
Attendance and punctuality	✓			

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Form L: Field Experience Attendance Sheet

*The Field Experience Attendance Sheet needs to be completed and submitted with The **Final Report**.*

Period Covered by Evaluation: From: 1 **5** / 2 / 20 **23** to 13 / 4 / 20 **23**

Student Name: Abrar Al OTaibi   Student ID: 201220173

Academic Department: CS / IS / HIS   Company Name: Shura Council

Name of Site Supervisor: Deema Alsalem

Site Supervisor Office Num. 4586   Site Supervisor Email: Salem@shura.gov.sa

	Day	Time in	Student Signature	Time out	Student Signature	Site Supervisor Signature
Week #1	Sunday	8:00		3:00		
	Monday	8:00		3:00		
	Tuesday	8:00		3:00		
	Wednesday	8:00		3:00		
	Thursday	8:00		3:00		
Week #2	Sunday	8:00		3:00		
	Monday	—		—		
	Tuesday	—		—		
	Wednesday	يوم التأسيس		—		
	Thursday	يوم التأسيس		—		
Week #3	Sunday	8:00		3:00		
	Monday	—		—		
	Tuesday	—		—		
	Wednesday	8:00		3:00		
	Thursday	8:00		3:00		
Week #4	Sunday	8:00		3:00		
	Monday	8:00		3:00		
	Tuesday	8:00		3:00		
	Wednesday	8:00		3:00		
	Thursday	8:00		3:00		

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وزارة التعليم
جامعة المعرفة للبنا
العلوم النظرية
قسم علوم الحاسب والمعلومات

	Day	Time in	Student Signature	Time out	Student Signature	Site Supervisor Signature
Week # 5	Sunday	8:00		3:00		
	Monday	8:00		3:00		
	Tuesday	8:00		3:00		
	Wednesday	—	—	—		
	Thursday	—	—	—		
Week # 6	Sunday	8:00		3:00		
	Monday	—	—	—		
	Tuesday	—	—	—		
	Wednesday	8:00		3:00		
	Thursday	10:00		3:00		
Week # 7	Sunday	10:00		2:00		
	Monday	—	—	—		
	Tuesday	—	—	—		
	Wednesday	10:00		3:00		
	Thursday	10:00		3:00		
Week # 8	Sunday	10:00		3:00		
	Monday	10:00		3:00		
	Tuesday	10:00		3:00		
	Wednesday	10:00		3:00		
	Thursday	10:00		3:00		

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وزارة التعليم
جامعة المعرفة للبا
العلوم التطبيقية
قسم علوم الحاسب والمعلومات

	Day	Time in	Student Signature	Time out	Student Signature	Site Supervisor Signature
Week # 9	Sunday	10:00		3:00		
	Monday	10:00		3:00		
	Tuesday	10:00		3:00		
	Wednesday	10:00		3:00		
	Thursday	10:00		3:00		
Week # 10	Sunday					
	Monday					
	Tuesday					
	Wednesday					
	Thursday					

Signature of the training site supervisor

Date: 12 / 04 / 20 23

Please submit this form after completion to: The Field Experience supervisor, College of Computer Sciences and Information Technology, Almaarefa University, by email: adawood@mcst.edu.sa

Thank you.

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