



## Course Specification of Field Attachments and Training

### **Course Code (BE405)**

<b>I. Course Identification and General Information:</b>						
<b>1</b>	<b>Course Title:</b>	Field Attachments and Training				
<b>2</b>	<b>Course Code &amp; Number:</b>	BE405				
<b>3</b>	<b>Credit hours:</b>	<b>C.H</b>				<b>TOTAL</b>
		<b>Th.</b>	<b>Seminar</b>	<b>Pr</b>	<b>Tr.</b>	
		0	0	0	0	0
<b>4</b>	<b>Study level/ semester at which this course is offered:</b>	Fifth Level / Second Semester				
<b>5</b>	<b>Pre –requisite (if any):</b>	Completing ---- credit hours of the program total credit hours				
<b>6</b>	<b>Co –requisite (if any):</b>	None				
<b>7</b>	<b>Program (s) in which the course is offered:</b>	Biomedical Engineering Program				
<b>8</b>	<b>Language of teaching the course:</b>	English				
<b>9</b>	<b>Location of Teaching the Course:</b>	Faculty of Engineering				
<b>10</b>	<b>Duration and time allocation of the field Training activity.</b>	8 weeks				
<b>11</b>	<b>Name of faculty member responsible for administration of the field Training:</b>	Will be assigned later on.				
<b>12</b>	<b>Places in which this field Training activity is</b>	Labor Market (Health centers/Hospitals).				

**University of Sana'a**  
**Faculty of Engineering**  
**Department: Biomedical Engineering**  
**Title of the Program: Biomedical Engineering**



**I. Course Identification and General Information:**

	<b>offered:</b>	
<b>13</b>	<b>Name of the person supervising the training of students in the field of training:</b>	Will be assigned later on.
<b>14</b>	<b>Prepared by:</b>	Dr. Hatem Al-Dois
<b>15</b>	<b>Reviewed by:</b>	Dr. Mohammed Al-Olofy
<b>16</b>	<b>Date of Approval:</b>	

**II. Course Description:**

Field training aims to expose students to a non-academic environment within which they apply the knowledge gained via traditional coursework. Field training is conducted within a particular time frame in either a governmental facility or private organization such as local hospitals, community clinics, public health agencies, related industries, research laboratories, and pharmacies. It enables students to engage in authentic, purposeful, partnered, supervised and assessed work learning experiences through which they develop practical, professional and interpersonal skills and connect to the latest technologies and protocols being used by important and relevant healthcare centers. During field training period, students are required to observe the rules and regulations and record daily activities in the records/log books. By the end of the training, each student will submit a full report containing detailed description of the work carried out by him/her. Faculty's staff will monitor the students' performance during the training sessions to assess the trainee attitude and the suitability of the training program.

<b>III. Course Intended learning outcomes (CILOs) of the course</b> (maximum 8CILOs)	<b>Referenced PILOs</b> (Only write code number of referenced Program Intended learning outcomes)
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<b>A. Knowledge and Understanding:</b> Upon successful completion of the undergraduate Biomedical Engineering Program, the graduates will be able to:	
a1 Review the basic engineering sciences to support the application of field	A1 Describe and explain the underlying mathematical methods and theories; life

**University of Sana'a**  
**Faculty of Engineering**  
**Department: Biomedical Engineering**  
**Title of the Program: Biomedical Engineering**



	training.	scientific-principles; and engineering core concepts related to the Biomedical Engineering context.
a2	Express the knowledge of the main disciplines of field training to meet the efficient performance requirements.	A2 Clarify the design principles and techniques and the engineering materials characteristics and how these are relevant to the developments and technologies in a biomedical systems context.
a3	Recognize the contemporary engineering technologies and issues in the specialization field of biomedical engineering.	A3 Recognize and explain the need for a high level of management, professional and ethical behavior, responsibility, quality assurance systems, codes of practice, standards, health and safety requirements, and environmental impacts in biomedical systems.
<b>B. Cognitive/ Intellectual Skills:</b> Upon successful completion of the undergraduate Biomedical Engineering Program, the graduates will be able to:		
b1	Analyze problems pertaining to biomedical engineering and provide solutions using appropriate techniques, resources, and modern engineering and IT tools with an understanding of the limitations.	B2 Identify, formulate and solve the complex problems related to the Biomedical Engineering fields in a creative and innovative manner by using a systematic and analytical thinking methods.
<b>C. Professional and Practical Skills:</b> Upon successful completion of the undergraduate Biomedical Engineering Program, the graduates will be able to:		
c1	Apply knowledge of mathematics, science, and engineering fundamentals with applied engineering procedures,	C1 Apply integrally knowledge of mathematics, life science, IT, design, business context and engineering practice to solve problems and to

**University of Sana'a**  
**Faculty of Engineering**  
**Department: Biomedical Engineering**  
**Title of the Program: Biomedical Engineering**



	and processes, to the solution of broadly defined problems of biomedical engineering.	design systems/processes relevant to Biomedical Engineering.
c2	Apply engineering design principles to interface and integrate smart biomedical systems that align with the specialization standards.	C2 Use a wide range of analytical tools, techniques, IT, modern engineering tools, software packages and develop required computer programs to solve, modeling and analyzing Biomedical Engineering problems.
c3	Exercise the role of the professional/specialist/manager/supervisor or confidently in the relevant healthcare facility.	C4 Use rules and regulations of industrial safety as well as safe and diagnose systems at work, evaluate performance and observe the appropriate steps to manage risks concerning biomedical systems.
<b>D. Transferable Skills:</b> Upon successful completion of the undergraduate Biomedical Engineering Program, the graduates will be able to:		
d1	Exhibit good technical knowledge, management, leadership, entrepreneurship skills and good relationship with seniors and subordinates.	D1 Lead and motivate individuals, show capability to work in stressful environments and within constraints, collaborate effectively within multidisciplinary team.
d2	Prove organizational skills, critical reasoning, compliance to work under supervision and directions and professional awareness of ethical, social, cultural, global and environmental responsibilities.	D2 Acquire entrepreneurial skills and effectively manage tasks, time, processes and resources.
d3	Possess enthusiasm for self-improvement through continuous professional development and life-long	D3 Recognize the needs for, and engage in life-long self-learning.

**University of Sana'a**  
**Faculty of Engineering**  
**Department: Biomedical Engineering**  
**Title of the Program: Biomedical Engineering**



	learning.	
d4	Communicate effectively in different forms with a range of audiences.	D5 Demonstrate efficient IT capabilities and communicate effectively both orally and in writing technical reports.

<b>(A) Alignment Course Intended Learning Outcomes of Knowledge and Understanding to Teaching Strategies and Assessment Strategies:</b>		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
<b>a1.</b> Review the basic engineering sciences to support the application of field training.	<ul style="list-style-type: none"> <li>• Videos demonstrations,</li> <li>• Interactive class discussions,</li> <li>• Case studies,</li> <li>• Team work (cooperative learning),</li> <li>• Field visits/training.</li> </ul>	<ul style="list-style-type: none"> <li>• Oral exams,</li> <li>• Short reports,</li> <li>• Lab\Project report</li> <li>• Practical lab performance assessment,</li> <li>• Coursework activities assessment,</li> </ul>
<b>a2.</b> Express the knowledge of the main disciplines of field training to meet the efficient performance requirements.	<ul style="list-style-type: none"> <li>• Presentation/seminar,</li> <li>• Interactive class discussions,</li> <li>• Laboratory/Practical experiments based session,</li> <li>• Workshops practices,</li> <li>• Problem based learning,</li> <li>• Team work (cooperative learning),</li> <li>• Field visits/training,</li> </ul>	<ul style="list-style-type: none"> <li>• Oral exams,</li> <li>• Practical lab performance assessment,</li> <li>• Coursework activities assessment,</li> <li>• Presentations.</li> </ul>
<b>a3.</b> Recognize the contemporary engineering technologies and issues in the specialization field of biomedical engineering.	<ul style="list-style-type: none"> <li>• Presentation/seminar,</li> <li>• Interactive class discussions,</li> <li>• Team work (cooperative learning),</li> </ul>	<ul style="list-style-type: none"> <li>• Oral exams,</li> <li>• Short reports,</li> <li>• Presentations.</li> </ul>

**University of Sana'a**  
**Faculty of Engineering**  
**Department: Biomedical Engineering**  
**Title of the Program: Biomedical Engineering**



<b>(A) Alignment Course Intended Learning Outcomes of Knowledge and Understanding to Teaching Strategies and Assessment Strategies:</b>		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
	<ul style="list-style-type: none"> <li>• Field visits/training,</li> </ul>	

<b>(B) Alignment Course Intended Learning Outcomes of Intellectual Skills to Teaching Strategies and Assessment Strategies:</b>		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
<p><b>b1.</b> Analyze problems pertaining to biomedical engineering and provide solutions using appropriate techniques, resources, and modern engineering and IT tools with an understanding of the limitations.</p>	<ul style="list-style-type: none"> <li>• Presentation/seminar,</li> <li>• Interactive class discussions,</li> <li>• Case studies,</li> <li>• Laboratory/Practical experiments based session,</li> <li>• Problem based learning,</li> <li>• Field visits/training,</li> </ul>	<ul style="list-style-type: none"> <li>• Practical lab performance assessment,</li> <li>• Coursework activities assessment,</li> <li>• Presentations.</li> </ul>

<b>(C) Alignment Course Intended Learning Outcomes of Professional and Practical Skills to Teaching Strategies and Assessment Strategies:</b>		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
<p><b>c1.</b> Apply knowledge of mathematics, science, and engineering fundamentals with applied engineering procedures, and processes, to the solution of broadly defined problems of biomedical engineering.</p>	<ul style="list-style-type: none"> <li>• Case studies,</li> <li>• Laboratory/Practical experiments based session,</li> <li>• Workshops practices,</li> <li>• Problem based learning,</li> <li>• Team work (cooperative learning),</li> <li>• Field visits/training,</li> </ul>	<ul style="list-style-type: none"> <li>• Lab\Project report</li> <li>• Practical lab performance assessment,</li> <li>• Coursework activities assessment,</li> <li>• Home works and assignments,</li> </ul>
<p><b>c2.</b> Apply engineering design principles to interface and integrate smart biomedical</p>	<ul style="list-style-type: none"> <li>• Case studies,</li> <li>• Laboratory/Practical experiments based session,</li> </ul>	<ul style="list-style-type: none"> <li>• Lab\Project report</li> <li>• Practical lab performance</li> </ul>

**University of Sana'a**  
**Faculty of Engineering**  
**Department: Biomedical Engineering**  
**Title of the Program: Biomedical Engineering**



<b>(C) Alignment Course Intended Learning Outcomes of Professional and Practical Skills to Teaching Strategies and Assessment Strategies:</b>		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
systems that align with the specialization standards.	<ul style="list-style-type: none"> <li>• Computer laboratory-based sessions,</li> <li>• Workshops practices,</li> <li>• Team work (cooperative learning),</li> <li>• Field visits/training,</li> </ul>	<ul style="list-style-type: none"> <li>• assessment,</li> <li>• Coursework activities assessment,</li> <li>• Home works and assignments,</li> </ul>
<b>c3.</b> Exercise the role of the professional/specialist/manager/supervisor confidently in the relevant healthcare facility.	<ul style="list-style-type: none"> <li>• Laboratory/Practical experiments based session,</li> <li>• Computer laboratory-based sessions,</li> <li>• Workshops practices,</li> <li>• Team work (cooperative learning),</li> <li>• Field visits/training,</li> </ul>	<ul style="list-style-type: none"> <li>• Practical lab performance assessment,</li> <li>• Coursework activities assessment,</li> </ul>

<b>(D) Alignment Course Intended Learning Outcomes of Transferable Skills to Teaching Strategies and Assessment Strategies:</b>		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
<b>d1.</b> Exhibit good technical knowledge, management, leadership, entrepreneurship skills and good relationship with seniors and subordinates.	<ul style="list-style-type: none"> <li>• Presentation/seminar,</li> <li>• Interactive class discussions,</li> <li>• Laboratory/Practical experiments based session,</li> <li>• Workshops practices,</li> <li>• Problem based learning,</li> <li>• Team work (cooperative learning),</li> <li>• Field visits/training,</li> </ul>	<ul style="list-style-type: none"> <li>• Oral exams,</li> <li>• Short reports,</li> <li>• Practical lab performance assessment,</li> <li>• Presentations.</li> </ul>

**University of Sana'a**  
**Faculty of Engineering**  
**Department: Biomedical Engineering**  
**Title of the Program: Biomedical Engineering**



<b>(D) Alignment Course Intended Learning Outcomes of Transferable Skills to Teaching Strategies and Assessment Strategies:</b>		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
<b>d2.</b> Prove organizational skills, critical reasoning, compliance to work under supervision and directions and professional awareness of ethical, social, cultural, global and environmental responsibilities.	<ul style="list-style-type: none"> <li>• Laboratory/Practical experiments based session,</li> <li>• Workshops practices,</li> <li>• Team work (cooperative learning),</li> <li>• Field visits/training,</li> </ul>	<ul style="list-style-type: none"> <li>• Practical lab performance assessment,</li> <li>• Coursework activities assessment,</li> </ul>
<b>d3.</b> Possess enthusiasm for self-improvement through continuous professional development and life-long learning.	<ul style="list-style-type: none"> <li>• Videos demonstrations,</li> <li>• Case studies,</li> <li>• Laboratory/Practical experiments based session,</li> <li>• Computer laboratory-based sessions,</li> <li>• Directed self- study,</li> <li>• Problem based learning,</li> </ul>	<ul style="list-style-type: none"> <li>• Short reports,</li> <li>• Coursework activities assessment,</li> <li>• Home works and assignments,</li> <li>• Presentations.</li> </ul>
<b>d4.</b> Communicate effectively in different forms with a range of audiences.	<ul style="list-style-type: none"> <li>• Presentation/seminar,</li> <li>• Interactive class discussions,</li> <li>• Case studies,</li> <li>• Problem based learning,</li> <li>• Team work (cooperative learning),</li> <li>• Field visits/training,</li> </ul>	<ul style="list-style-type: none"> <li>• Oral exams,</li> <li>• Short reports,</li> <li>• Coursework activities assessment,</li> <li>• Presentations.</li> </ul>

**IV. Field Training Course Aims:**

**1- Brief description of the main learning outcomes for students participating in the field**



**University of Sana'a**  
**Faculty of Engineering**  
**Department: Biomedical Engineering**  
**Title of the Program: Biomedical Engineering**



**training course.**

Upon participating in the course, students will be able to:

1. Review the basic engineering sciences to support the application of field training.
2. Express the knowledge of the main disciplines of field training to meet the efficient performance requirements.
3. Recognize the contemporary engineering technologies and issues in the specialization field of biomedical engineering.
4. Analyze problems pertaining to biomedical engineering and provide solutions using appropriate techniques, resources, and modern engineering and IT tools with an understanding of the limitations.
5. Apply knowledge of mathematics, science, and engineering fundamentals with applied engineering procedures, and processes, to the solution of broadly defined problems of biomedical engineering.
6. Apply engineering design principles to interface and integrate smart biomedical systems that align with the specialization standards.
7. Exercise the role of the professional/specialist/manager/supervisor confidently in the relevant healthcare facility.
8. Exhibit good technical knowledge, management, leadership, entrepreneurship skills and good relationship with seniors and subordinates.
9. Communicate effectively in different forms with a range of audiences.
10. Prove organizational skills, critical reasoning, compliance to work under supervision and directions and professional awareness of ethical, social, cultural, global and environmental responsibilities.
11. Possess enthusiasm for self-improvement through continuous professional development and life-long learning.

**For the Biomedical Engineering Program, the field training course aims to:**

1. Provide an opportunity to students to relate the knowledge obtained during lectures to actual implementation.
2. Expose students to actual work environment, common field practices, work ethics, safety regulations and employment opportunities in the field.
3. Motivate students to practice the right working attitudes and professionalism to increase their

**University of Sana'a**  
**Faculty of Engineering**  
**Department: Biomedical Engineering**  
**Title of the Program: Biomedical Engineering**



employability potential.

4. Provide an opportunity for students to acquire interpersonal skills and ability to work through interaction with professionals.
5. Cultivate student's leadership ability and responsibility to perform or execute the given task.
6. Provide students hands on practice within a real job situation with real tools and equipment.
7. Enable students to learn how to work in a team (casual workers, technicians, engineers, admin staff, etc).
8. Enable students to appreciate various challenges faced in the field and critical areas necessitating further research studies.
9. Strengthen functional relationships with healthcare organizations and authorities.
10. Ensure that coursework and training programs satisfy the expectations of the healthcare field and are up to date.
11. Allow the field training partners to identify potential employees and to feedback comments on the degree program at large.

**2- Briefly describe any plans for developing and improving the Field Training course**

1. Proper orientation and supervision between the faculty and the practical facilities.
2. Correspondence with the healthcare centers and medical facilities to ensure the vacancies regarding the field training.
3. Proper selection of the healthcare centers and medical facilities related to the applications of biomedical engineering.

**VI. Description of Field Training Tasks:**

**1 – At what stage or stages during the program does the Field Training occur?**

- The Field Training will occur in the third level second semester of the program.

**2 – Procedures of Training:**

- Department has to prepare an orientation session for the students regarding the importance of the field training.
- Department has to send training request letter to various healthcare centers and medical facilities well in advance before commencement of training.



## VI. Description of Field Training Tasks:

- After getting sufficient number of seats from the healthcare centers and medical facilities, students will be placed in different facilities for their field training.
- Students will have to fill up training form.
- Department will issue an order letter to healthcare facilities for the said training mentioning the name and registration number of students.
- All above activities have to be carried out in advance as plan out of placement in consultation with students.
- Students would normally be placed as per their choices, in case of more demand for a particular healthcare center/facility, students would be allocated places based on their relative merit (based on sixth semester results) .
- During the field training period, the head of the department will maintain a schedule for follow up of field training and according to it the head of the department will send the faculty members to various centers and facilities.
- The faculty member during the visit to healthcare facilities will check the progress of the student in the field training, his/ her attendance, discipline and the report preparation.
- The concerned faculty member has to prepare a detailed report for each visit to institute/healthcare center and prepare final report about the whole field training for submitting to the department at the time of final presentation.
- The department has to keep record of above progressive assessment during the visits of faculty members to healthcare and medical facilities.
- Student are required to submit Final Field Training Report which should be completed under the supervision of the field supervisor and the academic supervisor.
- Field training feedback report regarding the performance and attendance of the students is collected from the training-in-charge personnel at the facilities.
- At the end of the field training period a committee assigned by the head of the department includes the faculty supervisor will assess the work done by the student based on his presence and performance at the medical institute/center and the submitted field training report and final presentation.

### 3- Students Tasks:

#### **(A) Before Field Training:**

- Applying for a suitable field training, submit an application form through the concerned office to



## **VI. Description of Field Training Tasks:**

the organization concerned preferably one semester before the field training program commences.

- Submitting one copy of the offer letter for the field training to the Head of the department when collected. Students are not allowed to change their field training after obtaining the approval and confirmation from the Healthcare center.

### **(B) During Field Training**

- Sending a mail to the Head of the department or the concerned training officer as soon as the student reaches the training place indicating that he/she has joined the training; all needed information should be included along with the E-mail ID and contact numbers of the healthcare facility representative.
- Adhering to all safety precautions and professional code of conduct at the place of training.
- Keeping a record of all tasks undertaken in the log book.
- Preparing and submitting weekly reports to the field supervisor for assessment.
- Participating in the organization's events and activities.
- The student is responsible to ensure that all matters relating to the field training program are conducted in an ethical, conscientious, trustworthy and committed manner.
- Maintaining discipline and abiding by all rules and regulations enforced by the organization and ensuring full attendance during the field training duration.
- Upholding the reputation of the University at all times.
- Maintaining confidentiality and to not disseminate/share any information related to the organization to third parties.
- Being responsible for maintaining the security of properties belonging to the organization.

### **(C) General Rules**

- Student should complete a minimum of 100 credit hours before the commencement of the field training.
- Students are encouraged to apply for the field training either at a governmental sector or a private organization.
- The place chosen for the training should give an exposure to the field of Biomedical Engineering.
- Student shall be placed in a healthcare center, medical facility or research center at least 8 weeks under field training supervision.
- Students should complete the field training placement process within the specified time based on



### VI. Description of Field Training Tasks:

the field training program schedule.

- Students should adhere to security and safety regulations at the concerned healthcare department during field training.
- Student are required to provide one written report and a presentation after the field training is over.
- The field training will be evaluated based on the student performance at the medical facility, the reports submitted by the faculty member and the presentation and final report submitted by the student.

### VII. Students Assignments or Reports (if any):

No.	Assignments or Reports	When are these assignments or reports required?
1	<p><b><u>Half-Monthly report:</u></b>                      A brief description of the activity performed at the healthcare center/medical facility.                      Report must be approved by the training-in-charge from the field.</p>	Every half-month during the field training
2	<p><b><u>Final Field Training Report Submission:</u></b>                      When the field training of the student in a particular department of a healthcare facility is completed, student should prepare and submit detailed report to the Faculty. The report should explain clearly the work done by the trainee during the field training period. In addition, the report must include the following:</p> <ul style="list-style-type: none"> <li>– The basic history/introduction of the healthcare facility.</li> <li>– The aim of the field training explained in details with regard to the applications of biomedical engineering in the selected facility.</li> <li>– The layout of various floors or the labs and admin section of the healthcare/medical facility.</li> <li>– The major equipment used, the computer configuration</li> </ul>	After completing the field training period



VII. Students Assignments or Reports (if any):		
No.	Assignments or Reports	When are these assignments or reports required?
	<p>required and used software's.</p> <ul style="list-style-type: none"> <li>– The infrastructure available.</li> <li>– The movement of personnel and material.</li> <li>– Feedback and recommendations for future development of the training program.</li> <li>– Certificate from the healthcare/medical facility for the period of field training undergone.</li> </ul> <p>The final report must be 15-20 pages. Each student should prepare a report separately. The report should be signed by the student and his training-in-charge of that department in the facility/center.</p> <p><b><u>Format of Field Training Report</u></b></p> <p>The following headings must be incorporated in the final field training report:</p> <ol style="list-style-type: none"> <li>1. Preface/Acknowledgement</li> <li>2. Certificate with Signatures and Seal of the healthcare/medical facility Person</li> <li>3. Contents/Index</li> <li>4. Introduction about the facility</li> <li>5. Field Training Schedule</li> <li>6. Work Done / Observations</li> <li>7. Specific Assignment / Project Handled</li> <li>8. Learning after Training</li> <li>9. Summary</li> </ol>	
3	<p><b>Oral Presentation:</b></p> <p>Each student should prepare and arrange to present his report though seminar, which will be held by a committee constituted by the concerned department as per norms of the</p>	<p>After completing the field training period</p>



### VII. Students Assignments or Reports (if any):

No.	Assignments or Reports	When are these assignments or reports required?
	institute.	

### VII. Students Follow-Up:

The department will arrange visits to the healthcare/medical facility (follow up the students) at field training at least twice in a month for evaluating student's activity and their progress.

### VIII. Responsibilities of Supervisory Staff in the Field Training:

- To orient the students about the benefits and importance of field training before the training.
- To conduct meeting with the supervisory staff from the host facility.
- To visit the students during the training.
- To follow-up the training activities.
- To guide students on report writing.
- To provide feedback to the institution through progressive reports and recommendations.
- To participate in the assessment of the field training and marking of reports and examine students during presentations.

### IX. Responsibilities of Supervisory from the Health care / Institution:

- The host center/facility will provide a structured training program with emphasis on applications, management and hands-on experience to the students to:
  - a) Apply knowledge learned
  - b) Acquire practical skills in a real application/project-based assignment
  - c) Strengthen working values
  - d) Gain interpersonal skills by involving in a team-work activities
  - e) Utilize safety practices
- Healthcare/medical facility may allot project to individual or group of students under field training and students have to prepare reports on the same projects.
- Healthcare/medical facility is expected to assign groups of the students under field training to



**IX. Responsibilities of Supervisory from the Health care / Institution:**

some middle management level person for supervision and guidance (Training-in-charge).

- Training-in-charge is expected to explain the structure of the facility in which students participate.
- Training in-charge has to sign weekly diary (to certify the work done by students) with appropriate remarks.
- Training in-charge is expected to encourage the trainees to be involved in tasks that require responsibility.
- Training in-charge is expected to guide the trainees to the health and safety issues.
- Training in-charge is requested to guide students for preparing their final training report.
- Healthcare/medical facility is expected to maintain attendance for the student under field training and report any irregularity of the students to their parent faculty.
- Healthcare/medical facility is also expected to issue a certificate of attending field training on their letter head with marks reports and comments if any for student's record and motivation.

**X. The procedures to be used for students guidance and support:**

- Proper orientation and guidance to the students prior to the training.
- Motivating the students before and during the period of field training.
- Arrangement and distribution of students in the healthcare facility and assigning training-in-charge for each group.
- Taking feedback from students about field training and its relation to the field of study.
- Maintaining students regularity of attendance and solving issues that may appear in this regard.

**XI. The facilities and support of the institution in the field training for students:**

<b>1</b>	<b>Accommodation</b>	Field training will be planned in the city where accommodation arrangements are not required. In case the training is required in far or rural facilities, it is students' responsibility to arrange for their
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<b>XI. The facilities and support of the institution in the field training for students:</b>		
		accommodation in advance to the training period. The faculty may provide assistance through limited coordination with the host center/facility or providing the required letters to the students.
2	<b>Computer Resources</b>	Computer Lab. available at the Faculty.
3	<b>Learning Support Materials</b>	<ul style="list-style-type: none"> <li>• Text books which are available at the library of the Faculty.</li> <li>• Different field training and the related manuals.</li> <li>• Safety regulation manuals of different medical institutions.</li> </ul>
4	<b>Others</b>	<ul style="list-style-type: none"> <li>• Rules and regulations of the training institution.</li> <li>• Arrangement of the transportation of the academic staff.</li> </ul>

<b>XII. Preparation and Coordination:</b>	
<b>1- Identification of Field Placements:</b>	
According to the applications in the field of biomedical engineering a list of places that offer field training is prepared by the department. In addition, students suggestions are studied and considered based on the appropriateness of the suggested places and its relation to the aims of the training.	
<b>2- Preparation of Training Supervisors:</b>	
Head of the department is responsible about preparing the list of field training supervisors from the faculty members.	
<b>3- Preparation of Students:</b>	
The students should be divided into groups according to the availability of the training at the field places/hospitals/centers.	
<b>4- Safety and Risk Management:</b>	
Each healthcare center or medical institution is required to orient and direct the students to the safety rules and regulation of the institution. Students should strictly follow the security and safety regulations at the concerned healthcare department during field training.	



### XIII. Student Assessment:

#### 1- Bases of Assessment:

Order	Description	Mark
1	Attendance, discipline and field supervision report	30
2	Half-monthly report/s submitted by the student	10
3	Evaluation during visits by the concerned faculty member	20
4	Final training report	20
5	Final oral presentation	20
<b>Total</b>		<b>100</b>

Student obtains 50 marks or higher will get **PASS** grade in the course with no credits.

Student obtains less than 50 marks will get **FAIL** grade in the course.

#### 2- Training Supervisors Responsibility for Assessment:

A report is collected from the training-in-charge at the healthcare center that contains the evaluation of the student's performance during the field training and any additional comments. The evaluation of student's performance is based on:

- **General Behavior** (professional dressing, politeness and respectfulness, courtesy, acquaintance and appreciation).
- **Working Attitude and Behavior** (enthusiasm, giving priority in time and attention, preparation to the work assigned, adherence to the working hours, attendance regularity, acquaintance with learning materials and resources available, questioning and willing to learn and clarifying doubts, carrying out assigned responsibilities responsibly and professionally).

#### 3- Supervising Faculty Responsibility for Assessment:

- Submitting half-monthly reports on the observed student's performance during the visits.
- Evaluating the final training report submitted by the student.
- Evaluating student's presentation based on the following criteria:
  - a) Quality of material presented.
  - b) Effectiveness of presentation.



c) Depth of knowledge and skills.

### XIII. Evaluation of the Field Training:

#### 1- Describe the procedures to be followed for evaluation of Field Training activity by:

##### Students:

- Feedback report should be submitted by each student through which comments for improvement of the field training program procedures and effectiveness are provided.

##### Supervising staff in the field setting:

- Feedback report is submitted by the training-in-charge at the field setting to the faculty. The report includes comments on the student performance as well as on the suggested steps for improving the field training program.

##### Supervising faculty from the institution:

- Assessment of the field training program at the end of the training is submitted by the faculty member to the faculty in a form of a report.

##### Others: (e.g. graduates, independent evaluator, etc):

- Questionnaires are distributed amongst previous graduates and independent evaluators about the relativeness and effectiveness of the field training program.
- Suggestions from the present audience during the students presentations are documented and considered.

#### 2- Describe the planning procedures for periodically reviewing for the effectiveness of the field Training and planning for improvement.

- After finishing the field training program each year, the department council discusses the effectiveness and relativeness of the training with respect to the aims of the program and hence the council submits the recommendations for improvement to the faculty council.