KNOWLEDGE AND TECHNOLOGY

Bangladesh Army University of Engineering and Technology

Qadirabad Cantonment, Natore-6431

Guidelines for Industrial Training

Dept. of Information and Communication Engineering

Course Code: ICE 3270

Course Title: Industrial Attachment

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1. Introduction

Industrial Training Course is offered as a core course to the third-year second semester student of Bachelor of Science in Information and Communication Engineering. This course is part of the mandatory requirement to graduate. Industrial Training course can be conducted both in the government and private sectors. These guidelines have been prepared as a general reference to students and organization of industrial training.

2. Course Content

Four weeks training in an assigned company or industry on any one of the Trending Technology according to the industry standards. This is done by making students work on live projects which equip them with the required skill needed for the corporate world.

3. Course Objectives

- **a.** To provide students the opportunity to test their interest in a particular career before permanent commitments are made.
- **b.** To develop skills in the application of theory to practical work situations.
- **c.** To develop skills and techniques directly applicable to their careers which will increase a student's sense of responsibility and good work habits.
- **d.** To expose students to real work environment experience gain knowledge in writing report in technical works/projects.
- **e.** Internship students will have higher levels of academic performance.
- **f.** Internship programs will increase student earning potential upon graduation.
- **g.** To build the strength, teamwork spirit and self-confidence in students life.
- **h.** To enhance the ability to improve students creativity skills and sharing ideas.
- **i.** To build a good communication skill with group of workers and learn proper behavior of corporate life in industrial sector.
- **j.** The student will be able instilled with good moral values such as responsibility , commitment and trustworthy during their training.

4. Statement of Course Outcomes (CO)

COs	Statements	PO	PI Code	BL	WK	WP	EA	Delivery Methods and Activities	Assessment Tools
CO1	Apply engineering fundamentals information and concepts to adopt with industrial and modern technology.	3	P.01.3	C3	WK 3			Demonstration/Tutorial/ Self Study	Observation/ Report Writing, Oral Presentation
CO2	Practice good professional ethics and commitment to professional responsibilities.	08	P.08.1	A5					
CO3	Perform effective oral presentation on complex engineering activities.	10	P.10.3	A2					
CO4	Produces written engineering reports by applying principle based approaches and design documentation on complex engineering activities for different stake holders.	10	P.10.2	P3			EA 1, EA 5		
CO 5	Recognizing the need for continuing education and participation in the broadest context of technological change.	12	P.12.3	A5					

5. Mapping of CO and PO with Level:

Course Outcomes (CO)	Program											
	1	2	3	4	5	6	7	8	9	10	11	12
CO1	H											
CO2								H				
CO3										H		
CO4										H		
CO5												M

High (H)=3, Medium (M)=2 and Low (L)=1

6. Assessment Methods

Assessment Method	CO	PO	Bloom's Taxonomy Level	WK	WP	EA	Remarks
Observation	1	1	C3	3			Observation Report will be taken from the industry
	2	8	A5				
Presentation	3	10	A2				Will be assessed by the Departmental Industrial Training Committee
Report Writing	4	10	P3			1,5	
	5	12	A5				

7. Course Assessment Methods & their Weights:

Assessment Method	(%)
Observation of ability to apply fundamental engineering knowledge	20
Observation of ability to practice ethics and responsibility	20
Assessing communication skill by presentation	20
Assessing communication skill by report writing	20
Assessing the ability to recognize the need for continues learning	20
Total:	**100**

8. Statement of Program Outcome (PO)

Program Outcomes (POs), Knowledge Profile (WK), Complex Problem Solving (WP), and Complex Engineering Activities (EA)

Program Outcomes (POs):

Sl. No	PO	Category	Description
1	PO 1	Engineering Knowledge	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2	PO 8	Ethics	Apply ethical principles and commit to professional Ethics and responsibilities and norms of the engineering practice.
3	PO 10	Communication	Communicate effectively on complex engineering activities with the engineering community and with society at large. Some of them are, being able to comprehend and write

			effective reports and design documentation, make effective presentations, and give and receive clear instructions.
4	PO 12	Life Long Learning	Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

9. Knowledge Profile (WK/K)- CHARACTERISTIC

WK3	Engineering fundamentals	A systematic, theory-based formulation of engineering fundamentals required in the engineering discipline	

10. Complex Engineering Activities

Activities	Preamble	Complex activities means (engineering) activities or projects that have some or all of the following characteristics listed below
EA1	Range of resources	Diverse resources (people, money, equipment, materials, information and technologies).
EA5	Familiarity	Can extend beyond previous experiences by applying principles-based approaches.

11. Blooms Taxonomy

Cognitive Domain (PO1-PO7, PO11)		**Psychomotor Domain (PO4-PO5, PO10)**		**Affective Domain (PO6-PO12)**	
C1	Remembering	**P1**	Perception	**A1**	Receive
C2	Understanding	**P2**	Set	**A2**	Respond
C3	Applying	**P3**	Guided Response	**A3**	Value
C4	Analyzing	**P4**	Mechanism	**A4**	Organize
C5	Evaluating	**P5**	Complex Overt Response	**A5**	Internalize

C6	Creating/ Designing	**P6**	Adaption		
		P7	Origination		

12. Guidelines for Industrial Adviser

Organizations that accept students for industrial training are responsible for:

12.1 Before Industrial Training

a. Industry official will ensure that the list of tasks given to the students is suitable to students' fields of specialization and are included with the offer letter;
b. Industry official will appoint a qualified supervisor to supervise the students during the Industrial Training Program.

12.2 During Industrial Training

a. Industry official will provide proper disclosure to students whilst introducing the students to the organizational structure, scope of work and the working environment in the early period of the Industrial Training Program.
b. Industry official will guide students with the values of leadership for the development of their soft skills.
c. To ensure the work scopes for students are more focused on their field of specializations.
d. Industry official will evaluate students' work performances throughout the industrial training program as the form specified by the university in **Appendix A**.
e. Industry official will ensure the safety and welfare of the students are taken care of throughout the Industrial Training Program period.
f. Industry official will inform and notify the Industrial Training coordinator in any case of disciplinary problems/accidents/emergencies which may arise.
g. Industry official will maintain the attendance of student in the format provided by the university.

12.3 After Industrial Training

Industry official will complete the feedback form provided by the university and return it to the Industrial Training coordinator of university.

13. Guideline for student

Students are required to comply with the following rules:

13.1 Before Industrial Training

a. Student will apply for a suitable Industrial Training placement under the supervision and approval of the Industrial Training Coordinator. For Industrial Training outside campus , the organization of industrial training must have the following criteria:
    i. English is widely used. In particular, the assign industry supervisor is expected to be able to read, communicate, and giving written feedback in English.
    ii. An organization's website that is accessible to the public.
b. Student will obtain approval and confirmation from the Industrial Training Coordinator and to upload the offer letter from the organization to the BAUET authority.

13.2 During Industrial Training

a. Student will report duly at the organization within the specified time and adhere to working hours and rules of the organization.
b. Contact the organization immediately if they are unable to attend due to emergency or sick leave.
c. Student will maintain confidentiality and to not disseminate/share information related to the organization to any party during industrial training or thereafter.
d. Student will be responsible for maintaining the security of properties belonging to the organization.
e. Always dress neatly according to the conditions and rules of use in the training industry.
f. Student will record and compile a video or photos showing different relevant activities within the scope of industrial training.
g. Student will scan and compile the logbook with the complete signature and stamp of the industry supervisor.
h. Student will report immediately to the Industrial Training Coordinator in case of any problems pertaining to the Industrial Training Programme such as sexual harassment, bullying, inappropriate scope of work, and others;
i. Student will submit all relevant documents to the Industrial Training Coordinator in specific periods based on the checklist provided.

13.3 After Industrial Training

a. Student will submit a report on the Industrial Training and a presentation slide/video to the student adviser at **latest by one (1) week after** completing the Industrial Training;

b. Student will inform and remind the organization supervisor to complete and submit the evaluation and feedback forms from the Industrial Training Coordinator, and manage their training certificate.

13.4 Taking Leave

a. Students are not allowed to take leave throughout the course of the industrial training except with the approval of the relevant organization. If the approved leave is more than **two (2) days**, the student is required to replace the number of such absences.
b. Students who are unable to attend industrial training for more than **two (2) days** due to emergency or sickness are required to replace the number of such absences.
c. Students are required to report on the number of leave days in writing to the Faculty coordinator along with justification for the absence and supporting documents.

13.5 Final Report

The final report should be submitted **ONE (1) week** after the last day of industrial training. Approval from the industry supervisor is required and MUST be obtained before the submission of the final report. The final report should be written either in English.

13.6 Presentation

Student have prepare and deliver an oral presentation to the departmental committee of industrial attachment within one week of the completion of the attachment and the date and schedule provided by the departmental committee.

Appendix A

Marking Rubric for Industrial Observation

Department of ICE, BAUET

Name of the Student : _____ **Student ID :** _____ **Batch :** _____

Name & Address of Company : _____ **Attachment Start Date :** _____ **Attachment End Date :** _____

N.B. To be fill up by industrial official/supervisor

Si	CO	PO	Assessment Parameters	Outstanding (up to 20)	Very Good (up to 16)	Satisfactory (up to 12)	Unsatisfactory (up to 8)	Marks
1	CO1	PO1	Fundamental Engineering knowledge	Demonstrates outstanding ability to apply engineering fundamental knowledge to engineering activates.	Demonstrates very good ability to apply engineering fundamental knowledge to engineering activates.	Demonstrates satisfactory ability to apply engineering fundamental knowledge to engineering activates.	Demonstrates unsatisfactory ability to apply engineering fundamental knowledge to engineering activates.	
2	CO2	PO8	Professional ethics and responsibilities	Demonstrates outstanding professional ethics and commitment to professional responsibilities.	Demonstrates very good professional ethics and commitment to professional responsibilities.	Demonstrates satisfactory professional ethics and commitment to professional responsibilities.	Demonstrates unsatisfactory professional ethics and commitment to professional responsibilities.	
							Total Obtained Marks (out of 40)	

For Industry:

Signature of Industrial Official: _____

Name and Designation: _____

For University:

Signature of Chief Supervisor: _____

Name & Designation: _____

Marking Rubric for Presentation on Industrial Attachment

Department of ICE, BAUET

Name of the Student : _____ **Student ID:** _____ **Batch:** _____

CO	PO	Assessment Parameters	Outstanding (5)	Very Good (4)	Satisfactory (3)	Unsatisfactory (1-2)	Marks
CO3	PO10	**Organization (5)**	Very logical, coherent, complete	Generally logical, mostly coherent, generally complete	A bit scattered but acceptable, somewhat coherent, occasionally scrambled	Rather hard to follow, significant omissions and/or substitutions	
		Presentation (5)	Clear, convincing, good audience connection	Mostly clear, good grasp of material, only occasional stumbles	Lack of clarity, occasional gaps in theory or important details, somewhat nervous	A lot of confusion, not in control of facts and key details, very nervous and stiff	
		Interaction with material (5)	Clearly understood both research findings and underlying theory	Adequate understanding of research findings, generally understood underlying theory	Weak but acceptable understanding of theory, could present research findings but not always clear on implications	Lacked adequate understanding of theory, research findings not always understood	
		Question & Answering (5)	Quickly grasped questions, clear and apt responses, good control of both theory	Occasionally misunderstood a question, responses usually good though	Some misunderstanding of questions, responses may be vague or inaccurate, did not	Frequently misunderstood a question, incorrect or inadequate responses,	
						Total Obtained Marks (out of 20)	

Signature of Chief Supervisor: _____

Name & Designation: _____

Marking Rubric for Industrial Attachment Report

Department of ICE, BAUET

Name of the Student : _____ **Student ID:** _____ **Batch:** _____

Company Name : _____

CO	PO	Assessment Parameters	Outstanding	Very Good	Satisfactory	Unsatisfactory	Marks
		Marks	5	4	3	0-2	
CO3	PO10	**Background Chapter 1 (5)**	Outstanding explanation of background information and objective of attachment	Very good explanation of background information and objective of attachment	Satisfactory explanation of background information and objective of attachment	Unsatisfactory explanation of background information and objective of attachment	
		Marks	13-15	9-12	5-8	0-4	
		Explanation of Tasks Chapter 2 (15)	Outstanding explanation of attachment task with theoretical idea.	Very good explanation of attachment task with theoretical idea.	Satisfactory explanation of attachment task with theoretical idea.	Unsatisfactory explanation of attachment task with theoretical idea.	
		Marks	18-20	14-17	9-13	0-8	
CO5	PO12	**Needs for life –long learning (Sec. 3.6) (20)**	Outstanding realization and explanation of need for continuing education and participation in the broadest context of technological change.	Very good realization and explanation of need for continuing education and participation in the broadest context of technological change.	Satisfactory realization and explanation of need for continuing education and participation in the broadest context of technological change.	Unsatisfactory realization and explanation of need for continuing education and participation in the broadest context of technological change.	
						Total Obtained Marks (out of 40)	

Signature of Coordinator: _____

Name & Designation: _____