

**NU 402: Industry Practice Course**

**Student Handout**

Internship Practice Duration 26 weeks

**Process Flow:**

1. Student is Assigned Off Campus Faculty (Done), Faculty Mentor (Done) and Industry Mentor (to be announced soon) from an Industry Practice Organization (IPO)
2. Student reports to the IPO: January First Week or as per IP semester informed by CIC
3. Student is assigned an Industry Mentor at the Organization.
4. Work is assigned to student by IPO.

**Evaluation:** The Industry Practice Evaluation will be based on the following components

* Know Your Organization
* Work Plan
* Technical Progress
* Group Discussion
* Seminar
* Mentor Report
* End Semester Report
* Daily Diary

The following weightage has been assigned to each component:

**Instruments of evaluation and evaluation parameters:**

A. Daily Diary 10%

B. Other work elements as per following table 90%

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Evaluation Instruments 🡒** | **Know your Organization (10%)** | **Work Plan (10%)** | **Technical Progress Report (10%)** | **Group Discussion (10%)** | **Seminar (10%)** | **Mentor’s Reports (20%)** | **End-Semester Report (20%)** |
| **Evaluation Parameters 🡓** |  |  |  |  |  |  |  |
| **I. Professional** |  |  |  |  |  |  |  |
| 1. Planning ability | - | Y | Y | - | Y | Y | - |
| 2. Analytical ability | - | Y | Y | Y | Y | Y | Y |
| 3. Problem solving ability (creativity/originality) | - | - | Y | Y | Y | Y | Y |
| 4. Quality of technical work | - | - | Y | - | Y | Y | Y |
| 5. Ability to meet deadlines | - | - | Y | - |  | Y | Y |
| 6. Communication skill (Written and Verbal) | Y | Y | Y | Y | Y | Y | Y |
| 7. Consideration to Cost effectiveness | - | - | Y | - | Y | - | Y |
| 8. Customer focus | - | - | Y | - | Y | Y | Y |
| **II. Personal** |  |  | - | - |  |  |  |
| 9. Team-work | - | Y | - | Y | Y | Y | - |
| 10. Initiative | - | Y | - | Y | Y | Y | - |
| 11. Level of confidence | - | - | - | Y | Y | Y | - |
| 12. Integrity (Ethical) | Y | - | - | - | - | Y | - |

**Evaluation Schedule**

|  |  |  |
| --- | --- | --- |
| **When held** | **Evaluation instrument** | **% marks** |
| End of 2nd week | Know Your Organization | 10 |
| End of 4th week | Work plan | 10 |
| End of 10th week | Technical Progress Report | 10 |
| End of 12th week | GD | 10 |
| End of 22nd week | Seminar | 10 |
| End of 24th week | End semester Report | 20 |
| End of 12th and 24th week | Mentor’s Reports | 10 each |

**Know Your Organization**

(Submission at the end of 2nd week)

1. Company/Organization’s head office located?

2. Company establishment year in India?

3. Head/CEO of your company?

4. Mission & Vision of your company?

5. Core Values of your company?

6. What are the main trust areas of your company?

7. Explain organizational hierarchy of your organization?

8. Briefly describe about the core areas of work of your company?

9. Name 4 important clients/products of your company?

**Note:**

**Deadline** : Two weeks after the start of your project. **Weightage** : 10%

**Submission** : Upload on NUcleus.

Do not divulge any confidential any confidential information of your IPO

**Work Plan**

(Submission at the end of 4th week)

Name of Intern:

The Work Plan should have the following details:

1. Project Title
2. Objectives
3. Analysis of the problem: Describe the major problems that the project will need to tackle, as you understand them. Identify the bottlenecks, and (if possible) describe how you will tackle them.
4. Project Plan

Based on the objectives, the plan should discuss the strategy proposed to be adopted and the methodology of implementation.

The objectives and the project plan should set clear goals based on measurable outcome. Follow the guidelines given below. The same guidelines (SMART goal setting) will also be used as evaluation metric for your work plan.

|  |  |  |
| --- | --- | --- |
| **Step** | **Mnemonic** | **Description** |
|  | Specific | Which, What, Where, Who, Why |
|  | Measurable | How much, How many |
|  | Action Oriented | Describe the target or result you want to achieve |
|  | Realistic & Relevant | How it relates to individual/business/institute goal |
|  | Time Bases | By when. For example, technical progress notes are due at the end of 10th week. Seminar are to be organized at end of 22nd week. |

1. Project Deliverables: A brief description of the Primary and Secondary project outcomes. Primary outcomes are the planned/necessary/high-priority outcomes. Secondary outcomes (if necessary) may include potential/good-to-have/low-priority outcomes.
2. Time Line of important major milestones along with target dates (Enclose a PERT Chart here)

Time Line 🡒 Week 2 4 10 12 22 24

Activity/Deliverables

↓

1. Relevant Skills desired

List the skills that you have already acquired (either at NU, or elsewhere) which appear to be relevant for the project at hand. If necessary, categorize into Primary and Secondary skills.

1. Skills to Learn

List the skills that you have identified as necessary to acquire in order to complete the project. Categorize into Primary and Secondary skills if needed. State how you will go about acquiring these skills, and your deadlines for the same.

**Note:**

**Deadline** : Four weeks after the start of your project. **Weightage** : 10%

**Submission** : Upload on NUcleus.

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**Technical Progress Note**

(Submission at the end of 10th week)

Period From\_\_\_\_\_\_\_\_\_\_\_\_\_To\_\_\_\_\_\_\_\_\_\_\_\_\_(dd/mm/yy)

Name of Intern :

Name of Industry Mentor:

It is a brief report to summarize the progress of students’ technical contributions in the organization, and how it has matched the assigned targets as mentioned in the work plan.

The report should contain the following:

* Objective,
* Task description and task responsibility (vis-à-vis other team members).

The report must have reference to the work plan and clearly highlight the current state of the work against what was envisioned.

* Deviation from work plan, if any. If there has been any (un)predictable delay/interruption, its cause and consequence have to be noted in the report.
* Mention the technical challenges and solution adopted to meet the objectives.
* Outcomes (please ensure that you do not divulge any confidential information of your organization here):
* Describe the technical deliverable, your contribution as a member of the team, and how it matches to the objective/goal of the project as mentioned in your work plan.
* Any new solution/algorithm/analyses/process/product generated/ developed.
* Will your work result in external publication/patent?
* Please mention if you used any special tool/software/hardware.
* Describe any new skills that you picked up. How did you prepare yourself for this?

**Note:**

**Deadline :** End of 10th week.

**Weightage :** 10%

**Submission :** Upload on Nucleus

**Group Discussion (GD)**

(Schedule by the end of 12th week)

|  |  |
| --- | --- |
| **Evaluation Instruments** | **Group Discussion**  **(10%)** |
| **I. Professional** | |
| Analytical ability | Y |
| Problem solving ability | Y |
| Communication skill | Y |
| **II. Personal** | |
| Team-work | Y |
| Initiative | Y |
| Level of confidence | Y |

**Note:**

**Deadline :** End of 12th week.

**Weightage :** 10%

**Submission :** In Person/Skype

**Mentor Report**

**Submission deadline:** (end of 12th week, end of 24th week)

**Name of the Student:**

**Project Title:**

**Intern and Mentor details** (to be filled in by the Intern):

**Intern’s Name and email id:**

**Mentor’s Name/Organization:**

**Mentor Evaluation (to be filled in by the Mentor)**

Please evaluate the NIIT University Intern on a scale of 1 to 5 as described

1 = Poor; 2 = Below average; 3 = Average; 4 = Above average; 5 = Excellent

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Evaluation Parameter** | **Evaluation** |
| 1. | Planning ability |  |
| 2. | Analytical ability |  |
| 3. | Problem solving (Creativity/Originality) |  |
| 4. | Quality of technical work |  |
| 5. | Ability to meet deadlines |  |
| 6. | Communication skill (Written & Oral) |  |
| 7. | Customer Focus |  |
| 8. | Team-work |  |
| 9. | Initiative |  |
| 10. | Level of confidence |  |
| 11. | Ethical integrity |  |

Please briefly describe how this intern is an asset to your organization. Please briefly describe ways in which this intern can improve further.

**Note to Mentor:** This document is CONFIDENTIAL and will not be shown to the Intern. Please email the completed report directly to the Off-Campus Faculty.

**End Semester Report**

At the end of the Industry Practice period, the student will submit a report as a partial fulfillment to his Industry Practice Course requirements. The report will be treated as the last deliverable for the completion of the internship program and to be eligible for the final grade. The report is expected to clearly reflect the student’s activities during the internship period, viz. a conglomeration of the planning, learning, intellectual development, academic progress and scholarly achievements made during the period of his stay with the organization. The end semester report must include an outline of the business of the company, summarize the work done, and discuss any important and relevant aspects of the work. The end semester report shall be in two parts:

**Part-A (Technical):**

Do not divulge any confidential information of your IPO

The end semester technical reports should consist of three main sections: the preliminary pages, the main body of the report, and the reference material and appendix.

The preliminaries have to include:

* Title Page
* Acknowledgement
* Declaration by the student
* Endorsement (by Mentor & Institutional Instructor)
* Abstract / Executive Summary
* Table of Contents / List of Figures / List of Tables

The Title Page lists the report title, author’s name, mentor’s name, institutional instructor’s name internship organization, date, and the University name.

The Acknowledgement page should contain any acknowledgement of assistance. Declaration by the student: It should contain an endorsement that the report has been written solely by the author and that it has not already received academic credit from another institution.

The endorsement should be by the Mentor and the Institutional Instructor that the work reported has been actually done by the candidate in the organization under their mentorship and supervision.

The executive summary is written after the main body of the report is written. The executive summary must be self-contained and should include all major points of the report body. It should give sufficient details so that a person with prior knowledge in the field gets a good understanding of the contributions described in the report from reading the executive summary only.

The Table of Contents lists all sections and sub-sections, page numbers and uses the same numbering system as the main body of the report. The List of Figures/Tables lists the figures/ tables indexes and page numbers.

**The main body of the report should include:**

* Introduction
* Body
* Discussion, Conclusions and Recommendations

The Introduction clearly defines the objective of the project, the problem definition and scope, literature review, the outline of the company and/or department, and summary of the work performed at the company. Company Profile should include an outline of the background and specific business of the company and/or department in which the internship work was performed; relevant operational figures of the company (number of employees, organizational structure, industry trend etc.).

The Report Body is the descriptive part of the report. It should contain the objectives, analysis of the problem, methodology, findings and interpretation are covered in the main body of the report.

The methodology should outline of the work that has been performed in the company: a description of the given and performed technical activities and relevant results/outcomes. The most important technical results should be indicated in the report along with identification of the operational / technical processes, and how the result impacts the performance/behavior of the other modules / whole system. The student should also emphasize on customer focus/cost-effectiveness and business impact of the work done. The student should highlight his/her contribution and significance of his/her work performed during the internship period.

Discussions, Conclusions and Recommendations are merely derived from the main body of the report and do not introduce any new subject or concept. The conclusion usually restates the problem statement as given in the introduction and then refers to the method/ solution / finding / analyses as given in the report body. Recommendations and Future Scope are proposed plans of action for the future.

The Reference may include lists of all books, journals, web pages, articles which are specifically referred in the report. References have to include links to any information that is coming from an external source. The reference should follow a consistent style as per established guidelines of IEEE

Appendix: Information that is not essential to explain the findings or to the development of the theme, but that supports the analysis (especially repetitive or lengthy information), validates conclusions, justify statements or pursues a related point should be placed in an appendix. Examples of information that could be included in an appendix include figures/tables/charts/graphs of results, statistics, questionnaires, transcripts of interviews, pictures, lengthy derivations of equations, maps, drawings, letters, specification or data sheets, computer program information, organization chart, publicly available information about the organization etc.

**Part-B (Non-Technical):**

Industry Practice is not only an opportunity for developing technical skills and experiences, but also help in improving personality, and soft skills. The student must do a self- analysis on what were the areas where he/she gained the most, and where did he/she require to improve or where was he/she behind the necessary level? Students are encouraged to use anecdotes from their experiences in the organization and day to day activities during the internship period.

A discussion of specific technical issues relating to the student’s course of study at NIIT University is desired in the report. The purpose is to help the student develop critical thinking and analytical abilities in relating academic knowledge to practical experiences. The relevant questions to answer in this section are: what were the most useful subjects taught at NIIT University for your internship? What were the missing skills that the University should focus on?

**Note**

**Deadline:** End of 24th week.

**Weightage:** 20%

**Submission:** Upload on Nucleus/Hardcopy for library