

Induction Program

Preamble:

The goal of engineering education is to train engineering graduates well in branch of admission, have a holistic personality and must have desire to serve society and nation. It is expected that an engineering graduate work for solving the problems of society using the modern technologies and practices. That needs the broad understanding of the society and relationships. It is needed to cultivate the human values in engineering graduates to fulfil his responsibilities as an engineer, a citizen and a human being.

Considering the various social backgrounds and whether a student comes from the urban or rural areas they differ in many of the life skills and their abilities and thinking. There branch of admission may be due to rush; their interest in subject is question. They are facing the issues like hostel and settlements, pressures from peers and many related issues. To overcome such issues, it is necessary to create an environment for students so that they feel comfortable, find their interest and explore their inner beings, create bonding with other students, establish relation with teachers, work for excellence, get a broader view of life and practice human values to build characters. The Induction Program covers the various activities which enables them to overcome all such issues and motivates them to perform well in their chosen branch of admission.

Scheme:

| Sr No | Phase and Activities Heads | Weightage |
|--------------|-----------------------------------|--|
| 1. | Initial Phase | 1 day (6 Hrs) |
| 2 | Regular Phase | 13 Days |
| a) | Physical activity | 24 Hours |
| b) | Creative Arts | 12 Hours |
| c) | Universal Human Values | 12 Hours |
| d) | Literary | 12 Hours |
| e) | Proficiency Modules | 6 Hours |
| f) | Lectures by Eminent People | 3 Hours: 3 Expert Lectures, One per Week |
| g) | Visits to local Areas or Industry | 1 Day |
| h) | Innovations | 3 Hours |
| 3 | Closing Phase | 1 Day (6 Hrs) |
| | Total | 90 Hours |

Phases, Modules, Activities and Guidelines:

The activity during Induction Program would have an Initial Phase, a Regular Phase and a Closing Phase. The initial and closing phases would be one day each. The following is the guidelines indicating the possible activities under each phase of the Induction Program.

| Initial Phase (First Day) | | |
|---|--|--|
| <p>Following are the activities to be carried on the first day:</p> <ul style="list-style-type: none"> ● Orientation Programme ● Know your Department/Institute ● Know your university ● Know hostel and other amenities ● Information about Student Diary and Induction Program | | |
| Regular phase (13 Days) | | |
| <p>The Regular Phase consists of 13 days, each day is of 6 hours. It covers all the 8 different activity modules. For each module, the objectives, suggested activities and guidelines are provided herewith. Institute can use additional relevant activities in addition in suggested activities for each of the phases.</p> | | |
| Module Name | Objectives | Suggested Activities |
| 1. Physical Activity (24 hours) | 1. Improve bone health 2. Improve cardio respiratory and muscular fitness 3. Understand the anatomy, basic biomechanical principles and terminology. 4. Examine the effect of nutrition, rest and other lifestyle factors that contribute to the better health. | 1. Running/Jogging 2. Brisk Walk 3. Cycling 4. Heavy yard work 5. Swimming 6. Yoga/Pranayam 7. Aerobics 8. Outdoor Sports/Indoor Games (In addition to cricket, Volleyball, Badminton, Chess, Carom, Table Tennis, Other games like Critical Thinking, Math skill developing Games, Memory Games can be included.) 9. Calculate Body mass index of each student and explain their fitness level from it. 10. Tree Plantation 11. Gardening |
| <p>Guidelines:</p> <ul style="list-style-type: none"> ● Half an hour Yoga/Pranayam followed by physical activities including various games. ● Refer this link for Yoga/Pranayam https://s3-ap-southeast-1.amazonaws.com/ministry- | | |

| Module Name | Objectives | Suggested Activities |
|-----------------------------------|---|--|
| 2. Creative Arts (12 hours) | <ol style="list-style-type: none"> 1. Develop creativity and imagination through a range of complex activities. 2. Improve the student's ability to control materials, tools and techniques. 3. Develop increasing confidence in the use of visual and tactile elements and materials. | <ol style="list-style-type: none"> 1. Make a model of any physical object related to Engineering Design 2. Crafting 3. Painting 4. Sculpture 5. Pottery 6. Music 7. Dance |

Guidelines:

- Use any activities leading to creative thing and practice.
- Show the video demonstrating the creative ideas and thinking.
- Show the video demonstrating phenomenon performance using innovation in different areas of humanity and social science.
- Demonstrate the story of leaders with the context of how with their creative vision, with all odds they achieved success.

| Module Name | Objectives | Suggested Activities |
|--|--|---|
| 3. Universal Human Values (12 hours) | <ol style="list-style-type: none"> 1. Impart universal human values in students. 2. Enable students to live in harmony within themselves, with family, with society and the nature 3. Initiate the process of self exploration and self investigation within themselves about their understanding of happiness. | <ol style="list-style-type: none"> 1. Showing Motivational Movies. 2. Social Activities like visit of orphanage, old age home, blind peoples' school etc. 3. Swachchhata Mission Activities. 4. Awareness regarding environmental issues and remedies. 5. Spread awareness about blood donation, organ donation, precaution to avoid malaria in monsoon etc. 6. Discuss autobiography of legendary persons who practiced universal human values in their life and work. 7. Conduct universal human values group discussions. |

Guidelines:

- Use the materials and activities covered in the FDP on Induction Program held at GTU organized by AICTE.
- The faculties trained from institute will take leadership role to rollout it at institute level.

| Module Name | Objectives | Suggested Activities |
|------------------------------|---|--|
| 4. Literary (12 hours) | <ol style="list-style-type: none"> 1. Inculcate the habit of active (or interactive) consumption of the best content available in literature. 2. Develop thinking skills. 3. Improve reading abilities and attitude. | <ol style="list-style-type: none"> 1. Digital literacy and use of Internet 2. Basic Mathematics for Solving Real World Problems 3. Use of Scientific Calculator in Engineering 4. General Knowledge Quiz Competition 5. Vedic Mathematics 6. Reading/writing/speaking/listening 7. Debating/Elocution 8. Enacting a play 9. Book review |

Guidelines:

- Use the video lectures to literate students in different skills needed for day-to-day life and need.
- Motivate students to create the nature of inquiry and reading habits.
- Arrange the various competitions like Elocution, Essay writing, Storytelling, Book reviews etc.
- Writing the review of the well known books, movies etc and sharing.

| Module Name | Objectives | Suggested Activities |
|---|---|---|
| 5. Proficiency modules (6 hours) | <ol style="list-style-type: none"> 1. Determining English proficiency level of students and mentoring accordingly. 2. Learn the mining vocabulary, idioms, and expressions and understand their meanings in context. 3. Develop ability to write a paragraph about general topics by using the English language correctly. | <ol style="list-style-type: none"> 1. English general diagnostic test to determine student's English proficiency level. 2. Mentoring students to improve in English proficiency according to his/her proficiency level based on test. |

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|--|--|--|
| | 4. Realize the importance of English language as a global business language. | |
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Guidelines:

- An MCQ test of **45 minutes** should be conducted covering basic grammar and vocabulary.
- Group the students in three groups based on test result in three proficiency levels:
 - Unsatisfactory
 - Satisfactory
 - Good
- Following activities are to be used to uplift proficiency levels of students.
 - Motivational movies, documentary
 - Language games
 - Essay/story writing
 - Ice breaking games.
- Separate set of activities from suggested list should be used for different groups.

| Module Name | Objectives | Suggested Activities |
|---|--|--|
| 6. Lectures by Eminent people (3 hours) | 1. Motivation through knowing experience of successful person. 2. Meet and interact with eminent personalities of different fields. | 1. To conduct lecture by eminent people. 2. Interaction with leaders, experts, entrepreneurs, contributors and successful personalities |

Guidelines:

- 3 expert lectures each of 1 hour per week.
- Multiple divisions can be combined in an expert lecture.
- External expert should be invited.
- Expert can be from academic, industry, research organization, social organization etc.
- An individual successful person in any of the field can be invited.
- The aspect to be addressed may be social / economical / engineering / entrepreneurship/ spiritual/ humanity science.

| Module Name | Objectives | Suggested Activities |
|--|---|--|
| 7. Visit to Local Area and Industry (1 Full day) | 1. To familiarize students with the local area. 2. Sensitise with the different aspects of the life including social services and heritage | 1. A full day visit covering at least 2 or 3 places. 2. List of possible places A. Centre of excellence B. Elite Academic Institutes C. Research institute |

| | | |
|--|--|---|
| | | D. Hospitals E. Industry visit F. Heritage places |
|--|--|---|

Guideline and References:

- Institute can arrange visit to public, social or specifies places to give insight of the activities and overall socio-economic contribution of such places.
- The uniqueness or impact of such visits should be highlighted.

| Module Name | Objectives | Suggested Activities |
|-------------------------|---|--|
| 8. Innovation (3 hours) | 1. Introduce the student about innovation in different fields 2. Make students aware about innovative and modern practices and products in their own branch 3. Create awareness about support available for start-up and innovation | 1. Lectures by senior faculties. 2. Showing videos demonstrating innovation. 3. Introducing innovative technology/products. 4. Awareness regarding SSIP Scheme of Government of Gujarat 5. Awareness about Government initiatives in areas of innovations and supports for start-up, Incubation, Entrepreneurship etc. |

Guideline:

- Video lectures from leaders and innovators.
- TeDx Talks.
- Government Policy documents for different schemes.

Closing Phase (Last Day)

The closing phase is the last day of the Induction Program and covering conclusion and summary of the Induction Program.

Conclusion and summary:

- Guiding students for preparation of student report about Induction Program.
- Instruct students regarding submission and examination of the Induction Program.
- Address by HODs/Senior faculties regarding branch/discipline and career option in respective branch.
- Introduce about the engineering and its importance in life and their responsibilities towards the society.

General Regulations:

- Every student has to maintain a daily diary. Format of the diary is already given.
- After completion of the Induction program student has to prepare a report based on activities performed during the Induction program. Diary will be attached as Appendix in Report.
- 75% Attendance is require during Induction Program.

- d) This program will be noncredit subject but it will reflect in 1st Semester Marksheet as PASS or FAIL.
- e) Institute should appoint a mentor for a group of 20 to 30 students. Mentor can take help of senior students.
- f) If student gets admission transfer in other college during Induction Program the diary will be continued from previous college to new college.
- g) If student gets admission in middle of the Induction Program or student gets admission after Induction Program, it is responsibility of the institute to fulfill the criteria of the Induction Program.
- h) If student fails in the Induction program the student has to clear the same during subsequent Semester

Evaluation Pattern:

1. Induction Program is Mandatory course for each branch of Engineering.
2. It is mandatory for each student to clear Induction Program with PASS grade.
3. Grades for Induction Program are either PASS or FAIL and have no credits. Evaluation for Induction Program is based on the Induction Program Report prepared by a student from Student diary and student will be declared PASS or FAIL.
4. Student has to submit the Induction Program Report at the end of first semester dully approved by Mentor and HOD.
5. Evaluation of Induction Program will be done along with first Semester Term-Work Submission.
6. The evaluation is carried out by Internal Examiner from institute itself. The entry on the GTU portal will be PASS or FAIL, not marks.
7. The students who will FAIL have to reappear again after every 6 months as remedial exam.

Guidelines for Program Report:

- 1) Report should have minimum 20 pages.
- 2) Report must have One Photograph per Activity.
- 3) Report consists of Certificate, Index and Diary as Appendix.
- 4) Report should be dully signed by Mentor and HOD.
- 5) Index will have following sequence:

| | |
|----|-----------------------------------|
| 1. | Initial Phase |
| 2 | Regular Phase |
| a) | Physical activity |
| b) | Creative Arts |
| c) | Universal Human Values |
| d) | Literary |
| e) | Proficiency Modules |
| f) | Lectures by Eminent People |
| g) | Visits to local Areas or Industry |
| h) | Innovations |
| 3 | Closing Phase |

Format of Diary

Enrolment/Roll No:

Name of Student:

| | | |
|---------------------------------|------------------------|----------------------------|
| Day | | Date: |
| Hour | Activities Done | Learning Outcomes |
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| Signature of the Student | | Signature of Mentor |