GUJARAT TECHNOLOGICAL UNIVERSITY

Bridge Course Reports

1. *Shri Labhubhai Trivedi Institute of Engineering & Technology, Rajkot……..(Page No.2)*

2. *V.V.P. Engineering College, Rajkot……..(Page No.7)*

3. *Atmiya Institute of Technology and Science, Rajkot...(Page No.11)*

Report on Bridge Course conducted at S.L.T.I.E.T. (2015-16)

Shri Labhubhai Trivedi Institute of Engineering & Technology, Rajkot managed by Mahatma Gandhi Charitable Trust has successfully conducted Bridge Course activities in current academic year (2015 – 16) for the Semester –I students as Gujarat Technological University has introduced it for the First Year to bridge the gap.

The Bridge course has started on 3rd August, 2015. As GTU has already given the basic subjects for first semester students' e.g.: Learning Engineering, Life Skills, and History of Science & Village Visit. These basic activities were being conducted at Institute level and others like Village visits were prepared with the support of Village People especially Kankot and Krushnanagar.

It started with Orientation program as per the GTU Guidelines followed by inspirational address from Hon. VC sir.
Students have participated in all the activities very enthusiastically. The activities of various subjects are mentioned below.

1) Learning Engineering:

In this subject, students have learnt the essential aspects particularly of their branches. Mechanical branch students' gained knowledge of different instruments and its usages. They did get introduction about the drawing as well. Civil branch students' learnt about NDMA, SDMA, and DMA etc. In this subject, students have understood the Bloom's Taxonomy. They have done lot of activities in this Learning Engineering.

2) Village Visit:

In this activity, students have enjoyed the most. They have visited nearby villages. There they have interrogated about their child education, electricity facilities and make them understood how engineering can be helpful to them to satisfy their needs.

3) History of Science & Technology:

Students have learnt making aeroplanes in this activity through which they tried learning the principles of flying. Here the response was with extreme excitement.

4) Life Skills:

Life skills have given the actual understanding of Life because they have here understood the ways to live peaceful life by Managing Anger, learning Human Values. They have enthusiastically prepared a report on Life Skill by visiting Spiritual & Human Services Organisations. This activity has created utmost interest in the students.

In general, students have approached various activities with complete gusto where they have enhanced their knowledge regarding prime aspects of Engineering and Life as well.

Moreover, Inspection Committee has also interrogated students to know their response where positive feedback was given from students' side. The photographs of this interrogation is also been attached hereby.

Photographs of different activities performed by students:

સર્વ શિક્ષા અભિયાન
શિક્ષણનો અધિકાર
સર્વ શિક્ષા અભિયાન
સૌ ભણે, સૌ આગળ વધે
ગુજરાત પ્રારંભિક શિક્ષણ પરિષદ, ગાંધીનગર
સૌ ભણે સૌ આગળ વધે
શ્રી કૃષ્ણનગર પ્રા શાળા.
ના. જિ. રાજકોટ
પ્રાંરભ વર્ષ ૨૦૧૧-૧૨.

V.V.P.ENGINEERING COLLEGE, RAJKOT

BRIDGE COURSE REPORT 2015-16

Aiming at making the engineering smoother for the entrants, Gujarat Technological University has announced the bridge-course. For the last three years, it has successfully been achieving its objective of providing ample of time for the transition of students from school to the hard-core engineering. It also proves to be a best opportunity for the students to adapt themselves to new social and academic environment.

VVP Engineering College, Rajkot has always been well-known for its adherence to the rules and regulations charted out by GTU and the welfare of the students. That is the reason why VVP Engineering College has always been the first choice among the self-financed college in the students and their parents.

There are 9 branches of Engineering in the college and all of them have successfully accomplished all the tasks laid down by the University. Further, the evaluation report of the same has also been prepared branch-wise and student-wise. Here follows a brief report on the activities done by the college.

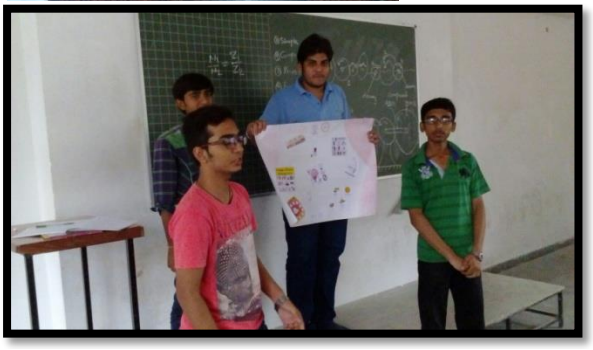
FIRST DAY OF COLLEGE (3RD AUGUST 2015)

Welcome & Orientation Program for 1st Semester Students was arranged on the very first day of college. Interaction of first semester students with Hon. Vice Chancellor was organised through Google Hangout during the first semester student orientation program at the Zaverchand Meghani Auditorium at VVPEC. They were made to know about the learning of engineering college. The students then visited their own departments where they were introduced in detail about their four years journey of engineering with detailing of the bridge course at the beginning.

1. Village Visit: The entrants at VVPEC, have visited some surrounding villages like Haripar, Vagudad, Vir-Vajadi, and made the visit to the Gram Panchayats, primary schools, aangan wadis, water tanks, and further existing facilities. They also interacted with some villagers and prepared a list of their plights and how can an engineer be a catalyst for bringing betterment to the village. Different points of view were put by the students for the betterment of the life. The students worked in groups and discussed what help can be provided for and how the people can be educated. The students were motivated for working towards the ultimate society as a whole.

2. History of Science and Technology:

   One of the major objectives of the bridge course was to make students well acquainted with our ancient science, from where there seems to arise the science of things. VVP Engineering College performed that task with the full diligence and thereby making students turn to our ancient knowledge. With the various interesting and interacting group activities, the students enthusiastically took part in making models and presentation of the same.



3. Learning engineering: While the table of the methodology and objectives of the education is topsy-turvy down now-a-days, the Bloom's taxonomy pyramid can be the best solution. Keeping that in centre, the essence of learning engineering is imparted to the students through the Bloom's Taxonomy and thus making students indulged into creative learning away from rot-learning of the concepts.

Along with the many technical movies like I Robot, I core, Upside Down, certain other movies related to fields of engineering were shown to the students as below with an objective of making the concepts of engineering clearer. The purpose of showing these kinds of movies was to make students aware about the strength of technology. And to teach them that technology must be used for constructive work and not for destructive one. Along with the acquisition of engineering knowledge, the discussion on the movies among the groups of the students enhanced their analytical and higher thinking skills.

1) Fabrication of Component – Video
2) Manufacturing Process of CFL,LED Light – Video
3) Gyroscope Working – Video
4) Application of v in Aeroscope
5) Real time communication between pilot & airport during flight take-off –Video
6) "Make in India" – Video

The disasters listed by the GTU in its bridge course were distributed among the students to find out their causes and later they were discussed in the class for their timely solution to avoid any such disaster in future. This activity coupled with the innovative idea provided a smooth gliding to the creative solution which is actually the objective of learning engineering and that too fulfilling Bloom's Taxonomy. At last students gave presentation in groups. They were made to know about their mistakes they made.

Presentations were made on the following topics:

1) Surat flood 2006
2) Google lens / holo lens
3) Crash plane 812
4) Titanic disaster
5) Mars mission
6) 3 d printing

4. Life Skills: Life skills subject with the variety of the sub-topics like happiness, The Bhagvad Geeta, Yoga, Meditation, tree plantation actually filled the students with lot of zeal and zest. The students very happily and engrossingly participated in all the activities, clearly visible through the following photographs. The students understood the importance of inner peace and pleasure, managing emotions, reading of the Bhagvad-Geeta and self realization, tree plantation, and awareness about Thalassaemia was spread among the students.

   Thus, the four week long bridge course has actually been the bridge not only between the school and college but also a bridge between two different methodologies of learning which would benefit the students in their further studies.

REPORT OF

GTU BRIDGE COURSE

TOPIC

HISTORY OF SCIENCE AND TECHNOLOGY

FOR FIRST YEAR B.E.

ACADMIC YEAR:2015-16

INSTITUTE:

ATMIYA INSTITUTE OF TECHNOLOGY AND SCIENCE

Activity Coordinator:

P. V. Kanjariya

Lecturer of Physics,
Atmiya Institute of Technology and Science

Objectives

Activities Done

Report

Students performing various activities

Summary

GTU Bridge Course

History of Science and Technology

Tab 1

Objectives

There is a very high importance of bridge course for First year students. In spite of having very good grades at Higher Secondary Exam, students had long break since the month of April. It is well known that most of students are still unaware about topics like communication skills, public speaking, building confidence because of shift from vernacular to English language. Students face an immense pressure of studying all the subjects in English. This sudden transition makes some of them feel low.

Looking to above points, it was felt to take holistic approach in implementation of bridge course. By taking these 4 weeks seriously and sincerely, the difference in our students, is visible and feel more confident.

The bridge course is acting as a buffer for new students, and is acting as a bridge to initiate the hardcore engineering subjects with ease. As per the order of GTU this course includes activities like Village visit, Life skill, Learning Engineering and History of science and technology. These 4 weeks program will enable students to prepare for the 1st year engineering subjects with confidence.

GTU Bridge Course

History of Science and Technology

Activities Done

Tab 2

- To Prepare Paper airplane
- Gyroscope
- Finding the Value of π (Pi)
- Pythagoras Theorem
- Newton’s Motion Laws
- Gravitation Force
- Earth Magnetic Field
- Magnetic Levitation
- Archimedes Principle
- Cryptography
- Town Planning
- Finding North using Astrological Knowledge

GTU Bridge Course

History of Science and Technology

Report

Student learnt History of Science and Technology during these sessions. They learnt how scientifically rich our Indian culture was and they come to know that many scientific stuffs can be found in Indian literature.

In each activity historical backgrounds were explained and designed activities were performed by students. Students also learnt practical aspects of Physics and Mathematics through not only applying theory but also performing activities under Bridge course. Students learnt theoretical aspects from day to day activities.

Students had great enthusiasm of while performing activities. This mode of learning made students realize that only marks or mugging up things will not enable them to learn things effectively. Learning practically implementing theories is a great adventure and learning horizons of knowledge has widened in students.

GTU Bridge Course

History of Science and Technology

Students Performing Various Activities

GTU Bridge Course

History of Science and Technology

Summary

Bridge course in the institute was welcomed with a positive note by all the staff members on a short notice. Thus, this enhanced the confidence of the students. They come to know about history and development of science and technology and its future. Bridge course has produced awareness amongst students about learning effectively and revising basic subjects will help them comfortably study their core engineering subjects with ease. On the whole, this journey of 4 weeks was joyful and informative.