

GUJARAT TECHNOLOGICAL UNIVERSITY, AHMEDABAD, GUJARAT

**COURSE CURRICULUM
COURSE TITLE: TECHNICAL SEMINAR
COURSE CODE:3360206)**

Diploma Programme in which this course is offered	Semester in which offered
Automobile Engineering	Sixth

1. RATIONALE

In the present world of fast growing knowledge, automobile sector is no different. Every year new models of the vehicles are being launched with new technologies and features. In this scenario, automobile engineers should have ability to search and learn on their own about emerging technologies. It is necessary so that they may continue to learn while on the job, even when there are no teachers to guide them. To develop these abilities of self learning in students, this course is kept in the curriculum. In this course students would choose on their own some topic beyond the curriculum and would search material on this topic by visiting internet/automobile companies and their garage. Based on this collected material they would develop the posters/charts, models, report and presentations. In this course major learning/work would be done by students on their own, and faculty would only guide, support and motivate them. Faculty may also work as facilitator for arranging resources for students. It is hoped that this course would develop knowledge, practical skills, self learning abilities, creativity, presentation skills, team working, leadership & communication skills and overall personality in students. This course will also enable them to gain confidence to face the Placement interviews.

2. COMPETENCY

The course content should be taught and implemented with the aim to develop different types of skills leading to the achievement of the following competency:

- **Present scientifically prepared technical paper/charts/models on some emerging technology related to automobiles.**

3. COURSE OUTCOMES (COs)

The theory should be taught and practical should be carried out in such a manner that students are able to acquire different learning outcomes in cognitive, psychomotor and affective domain so that students are able to

- Gain knowledge of fast and rapid changing automotive technology by self learning.
 - Prepare models/charts/reports based on collected information.
 - Prepare presentation in proper format.
 - Show communication, interpersonal and presenting skills.
- ∇-Handle questions after the presentation with confidence

4. TEACHING AND EXAMINATION SCHEME

Teaching Scheme (In Hours)			Total Credits (L+T+P)	Examination Scheme				Total Marks
				Theory Marks		Practical Marks		
L	T	P	C	ESE	PA	ESE	PA	100
0	0	3	3	00	00	40**	60	

Legends: L-Lecture; T – Tutorial/Teacher Guided Student Activity; P - Practical; C – Credit;; ESE - End Semester Examination; PA - Progressive Assessment.

**Indicate internal exam for practical.

5. COURSE CONTENT DETAILS:

There is no specific content in this course; however, teachers/students are supposed to follow following guidelines for technical seminar/model making:

- i. Students will select topics on their own, the topics may be on any aspect of the automotive technology but normally beyond the curriculum.
- ii. Student would organize preliminary presentations before faculty and other students, in which he/she would explain what is the topic or topics? Why they have chosen this? And what are they going to do in it? Based on this presentation guide would approve or help them in finalization of the topic and would give suggestions for further improvement. The presentation by one student/one group and discussion on this presentation would also be learning for other groups.
- iii. Faculty should ensure that though topic is challenging to students, it should be feasible and within capabilities of the group of students.
- iv. It is mandatory that each student will present individually a seminar/model on agreed topic. Student can make working/ demonstrative model and give presentation seminar on it.
- v. In a session of three periods per week, Students are expected to present the progress of seminar/ model to the concerned faculty and take help them if required.
- vi. These three periods per week may also be used by faculty for arranging presentation by each student on a small topic (but different than their main topic) for 5 to 10 minute duration. This would give one more chance to each student for learning and presenting.
- vii. During the final seminar sessions each student (In case of group, max. of 4) is expected to prepare and present a topic on engineering/ technology, for duration of not less than 15 minutes.
- viii. The student has to submit a hard copy of the technical report, in the form of a title page, introduction, body chapters and a conclusion with references, running to not less than 20 pages; this will be evaluated by the faculty coordinator/guide. Original references are highly valued.
- ix. At end of the semester students would have to submit the posters/charts/ model/presentations.
- x. For every group of students a faculty guide is to be allotted and he / she will guide and monitor the progress of the student and maintain attendance.
- xi. Students are encouraged to use various teaching aids such as over head projectors, power point presentation and demonstrative models.

6. SPECIFICATION TABLE:

There is no particular specification table for assessment; however, faculty should follow following guidelines for assessment:

Progressive Assessment:

The progressive assessment would be carried out based on following criteria.

- i. Innovativeness of the topic
- ii. Initiative and efforts taken in searching the topic

- iii. Amount and quality of material collected related to topic by searching library/internet/automobile companies etc.
- iv. Creativity and innovativeness in preparing models/charts etc.
- v. Planning the activities and then pursuing that plan.
- vi. Persistence in the efforts and resourcefulness.
- vii. Team working as member of team and leader.
- viii. Communication skills.
- ix. Sharing of the load within the group.
- x. Timely achievement of the targets.

End of the Term Assessment:

50% Marks would be allocated to report/model/charts. The criteria for their evaluation would be as below:

- i. Amount of work involved/amount of individual's contribution in it.
- ii. Complexity of work
- iii. Novelty of the work
- iv. Neatness and clarity in work
- v. In case of charts the quality of sketch/diagrams/graphs/tables etc.
- vi. In case of models the type of materials and fabrication methods used for making it.
Amount of work done by students as compared to use of directly purchased components (fabrication from market should be discouraged/penalised)
- vii. In case of reports language, originality (cut and paste should not be allowed/penalised), organisation and presentation of material, quality of diagrams/drawings, number and quality of references.

Note: Student's efforts rather than only quality of work should be the basis of giving marks. It may happen that one group of students have fabricated model on their own and this model may not have good finish or might not be fully complete, but this group should get more marks as compared to the group who have finished model but most of the work has been got done from market.

50% Marks would be allocated to presentation.

The assessment criteria would be as below:

- i. Quality of slides/transparency prepared
- ii. Organisation and sequencing of the content
- iii. Quality of content.
- iv. Confidence level and communication during presentation
- v. Handling of questions after presentation

Note: -*It is Compulsory to upload three best PPT Presentation Institute wise during online mark entry of this subject.

7. SUGGESTED LIST OF PRACTICAL/EXERCISES

Not required.

8. SUGGESTED LIST OF STUDENT ACTIVITIES

Following is the list of proposed student activities for this course:

- i. Search internet/library/Automobile Manufacturers/Garages
- ii. Identify a topic related to the curriculum but beyond curriculum
- iii. Collect as much information as possible for selected topic.
- iv. Prepare charts on this topic and related topics.

- v. Prepare models for various automotive components related to topic.
- vi. Demonstrate use of latest technology in topics selected.
- vii. Prepare a detailed report on work done
- viii. Prepare presentation for 15 minute duration and present it in front of students and faculty.

9. SPECIAL INSTRUCTIONAL STRATEGIES (If any):

- (i) In this course students should be allowed and encouraged do maximum things on their own so that they develop self directed learning skills.
- (ii) Faculty should only regularly monitor the progress and help students only if they are stuck. For this faculty should allow students to struggle and should not spoon feed them but at the same time should have a close watch on them to ensure that they are working on their own.
- (iii) Faculty should help students if required in arranging resources from different departments of the institute and from other institutes/ organisations
- (iii) Faculty should also keep an eye on the group dynamics and short out if there is any major problem in some group/groups.
- (iv) Faculty should warn the group at different stages if they are not progressing well as per their plan, and if necessary this warning may be issued in writing to students to make them understand the importance of it and for making records for justifying giving less marks to them if they are not able to perform well by the end of the term.

10. SUGGESTED LEARNING RESOURCES

- (i) Access to Library books/internet should be ensured
- (ii) For project work faculty may liaison with the other institutes/organizations and automobile companies in the city for providing access to students to their libraries and learning resources.
- (iii) Faculty should also liaison with other departments/institutes and automobile companies for providing access to students to their workshops/machines for fabrication of models/projects.

11. COURSE CURRICULUM DEVELOPMENT COMMITTEE

Faculty Members from Polytechnics

- **Prof. M.J. Pathak**, H.O.D., Auto.Dept. Sir Bhavsinhji Polytechnic Inst., Bhavnagar.
- **Prof. A.K. Nanavati**, Lecturer, Automobile Engg. G.P., Ahmadabad.
- **Prof. A.C. Suthar**, Lecturer, Automobile Dept. MLID Polytechnic, Bhandu
- **Prof. Sulay Patel**, H.O.D., Auto.Dept. L.J. Polytechnic, Ahmadabad.

Coordinator and Faculty Members from NITTTR Bhopal

- **Dr Shashi Kant Gupta**, Professor and Coordinator for state of Gujarat.
- **Dr. K. K. Jain**, Professor, Department of Mechanical Engineering