



## Academic Policy

The Outcome Based Education (OBE) System follows the philosophy of the *Learner Centric Approach*, where the learner is given prime importance rather than the Teacher Centric Approach, where the teacher is given prime importance. The process becomes “*Teaching – Learning*” to “*Learning – Teaching*” Approach. OBE Systems begins with the framing of the Outcome Based Curriculum (OBC), by considering the Attributes (Qualities) expected from the students/learners, this gives rise to the Outcome Based Learning – Teaching (OBLT) Process where the student learning is given more importance, to measure the OBLT (What student has learned?) the Outcome Based Assessment (OBA) Methods, based on the assessment results the attainment is measured and the corrective actions have to be taken. This is the system followed in the Department of Aeronautical Engineering, ADCET, Ashta.

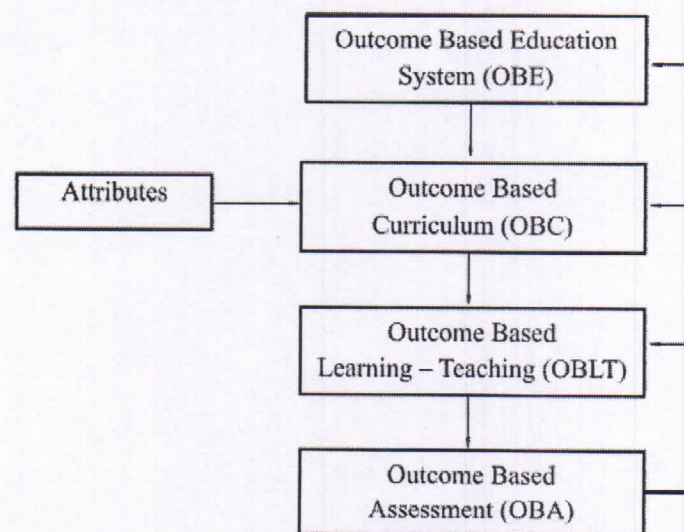


Figure 1. Outcome Based Education (OBE) System

The Key Constituents of the OBE System are,

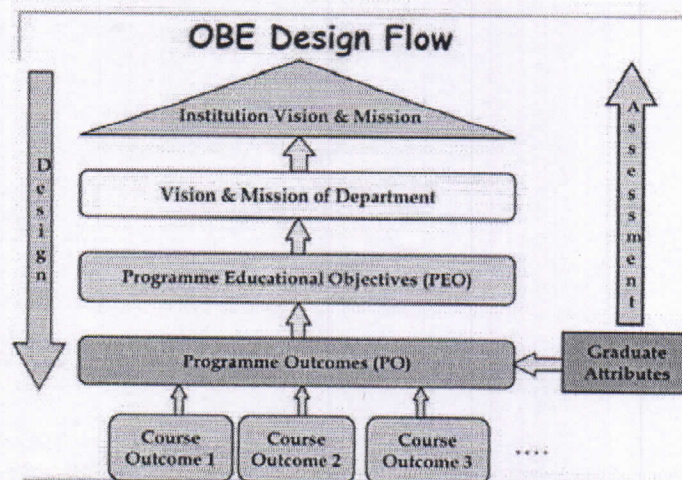
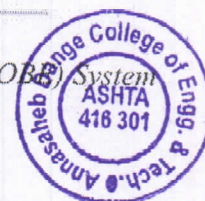


Figure 2. Key Constituents of Outcome Based Education (OBE) System





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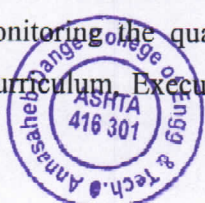


## A. Curriculum Design and Development

**Curriculum Design and Development** is an prime responsibility of an Autonomous Institution, as Annasaheb Dange College of Engineering and Technology, Ashta (ADCET, Ashta) being an Autonomous Institution shall adopt Outcome Based Curriculum Development as the philosophy in principle. The curriculum for all the programs offered by the ADCET, Ashta shall be formulated in accordance with guidelines of AICTE, UGC, Other Apex/Statutory bodies, Shivaji University, Kolhapur with the involvement of all the stakeholders to meet the Vision and Mission of the Institution.

The curriculum developed shall be in tune with the Program Outcomes (PO's) and Program Specific Outcomes (PSO's) of the program. A detailed procedure to be followed for curriculum design and development is shown in Figure A1.

1. **Curriculum Revision** - The Curriculum of all the programs offered by ADCET, Ashta shall be revised every four year (or) as and when required with the approval of Academic Council (AC) based on the guidelines of AICTE, UGC, Other Apex/Statutory bodies and stakeholders feedback. Each revision of curriculum shall be numbered in sequence starting from ZERO.
2. **Academic Council** - The Academic Council (AC) shall be constituted in the ADCET, Ashta as per the University Grants Commission (UGC) guidelines for autonomous colleges. UGC guidelines shall be followed for composition of AC, Term of AC, Frequency of Meeting, and Functions of AC. The AC shall approve Curriculum Revision, Academic Rules and Regulations, Syllabi and Modifications in Syllabi, Instructional and Evaluation Methods/Procedures and relevant matters.
3. **Board of Studies** - The Board of Studies(BoS) for each Department of ADCET, Ashta shall be constituted in accordance with the University Grants Commission (UGC) guidelines for autonomous colleges. UGC guidelines shall be followed for composition of BoS, Term of BoS, Frequency of Meeting, and Functions of BoS. The BoS shall approve syllabi revisions for various courses, suggest methodologies for innovative teaching and evaluation techniques and relevant matters.
4. **Program Assessment Committee** - A Program Assessment Committee(PAC) shall be constituted for each program offered by the Department of ADCET, Ashta. The constitution of PAC shall be as follows, Head of the Department as Chairman, Department Exam Coordinator as Member Secretary, Academic Coordinator as Member and Two Senior Faculty Members from Department as Members. The roles and responsibilities of PAC are as follows, Monitoring the attainments of Course Outcomes (COs), Program Outcomes (POs), and Program Specific Outcomes (PSO) for achieving the Program Educational Objectives (PEO's). Monitoring the quality of assessment tools used, Execution of process for designing the program curriculum. Executing the process for improving the quality of







Teaching & Learning, Preparing periodic reports on program activities, progress, Evaluating program effectiveness and proposing necessary changes. The PAC shall meet regularly as and when required.

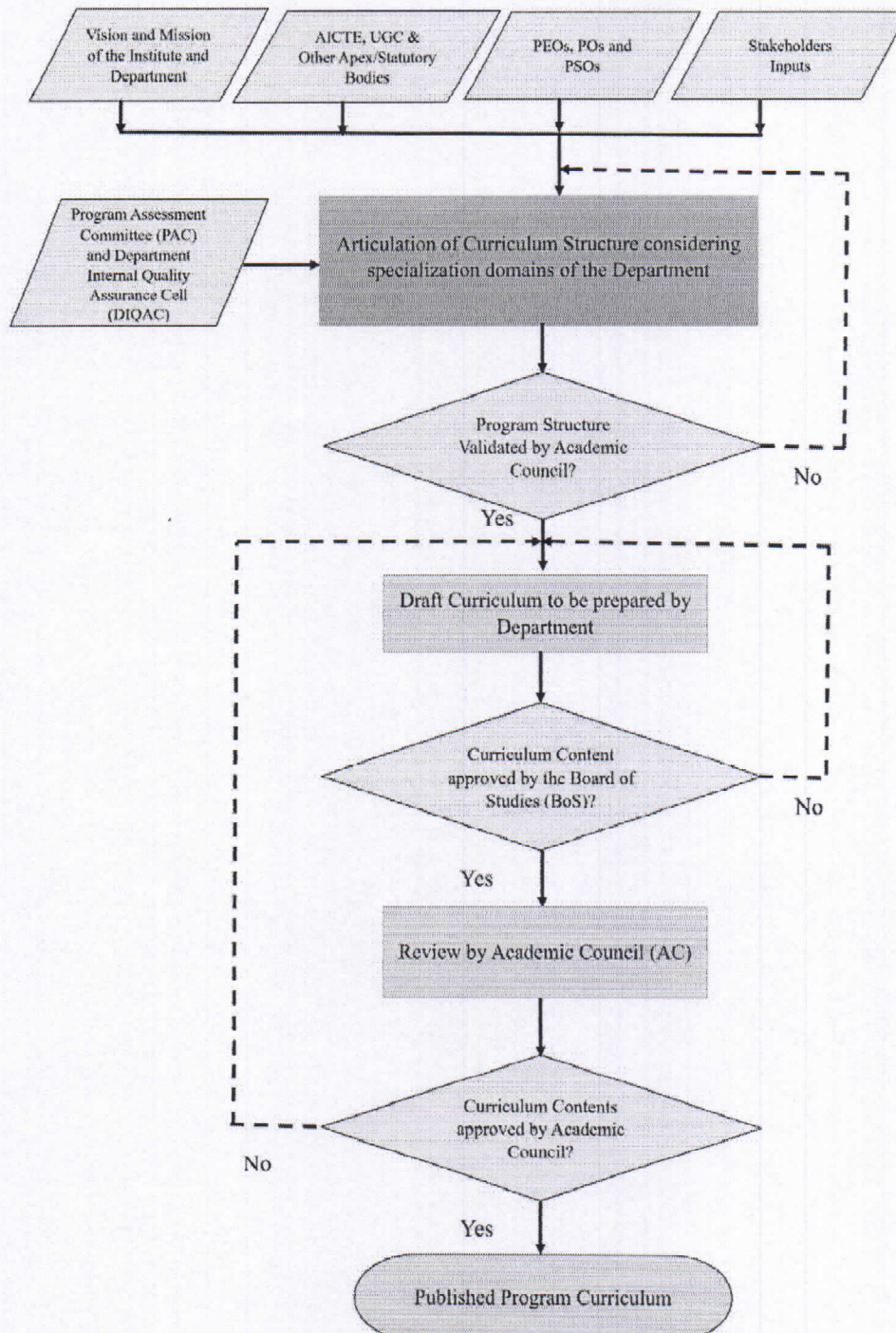


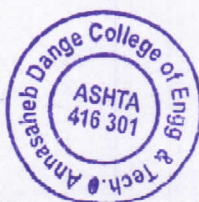
Figure A1. Program Curriculum Design and Development Process







5. **Stakeholders Feedback** - The feedback on curriculum shall be obtained from the stakeholders such as Faculty, Students, Industry Experts and Academic Experts periodically at least once in a Year by the Academic Coordinator and the Analysis of Feedback from the stakeholders shall be discussed in PAC/DIQAC. This shall be the input for subsequent curriculum revisions.
6. **PO's and PSO's** - The academic courses in the curriculum shall be designed with Course Outcomes (CO's), which shall be mapped to PO's and PSO's. The Department Academic Coordinator shall continuously monitor and record the progress of attainment of PO's and PSO's for a particular batch and discuss the same in the Program Assessment Committee (PAC). The PAC shall compare the PO's and PSO's attainment of various batches under the same curriculum revision and present the same to DIQAC. The DIQAC shall recommend the changes required in the subsequent curriculum revisions.
7. **Academic Rules and Regulations** - For every curriculum revision the Academic Rules and Regulation shall be framed and be approved by the Academic Council based on the recommendations of the Institute Examination Committee(IEC). The Academic Rules and Regulations shall be the following for mode of assessment, examination process, grading system, calculation of performance indices, promotion of students, and other relevant matters. The Academic Rules and Regulations shall be made available on the Institute Website for dissemination among all the stakeholders.







## B. Academic Planning

1. **Direct Academic Teaching Hours** - The academic teaching hours for the faculty members will be in proportion to their designation, which is as follows

**Table B1: Minimum Direct Teaching Hours for Faculty Members**

| Sl.No | Designation         | Minimum Direct Teaching |
|-------|---------------------|-------------------------|
| 1     | Professor           | 12 Hours/Week           |
| 2     | Associate Professor | 14 Hours/Week           |
| 3     | Assistant Professor | 16 Hours/Week           |

Relaxation of 02 - 04 Hours/Week can be provided for Faculty Members who are involved in Institute Level administration and extension activities. The actual allotment can vary depending upon available faculty and courses in the department. In addition to the direct academic teaching, the faculty members must also get engaged in Research and Development, through involving students and supervising them in their Project Works.

2. **Course Allocation** - The course allocation will be initiated by the Head of the Department through seeking choice and preferences of the courses from the faculty members, and the course allocation will be made by the Head of the Department with Academic Coordinator and Time Table Incharge. The course allocation will be finalized in the Department Faculty Meeting (DFM). The course allocation for an academic session/semester shall be completed at least 15 days before the commencement of teaching. In case the department is in need of additional faculty members the same shall be reflected in the course allocation sheet. This shall be reported to the Director through Dean Academics for approval and necessary actions if required.
3. **Institute Academic Calendar** - The Dean Academics shall initiate the process of preparing the Institute Academic Calendar (IAC) of an academic session/semester in due consultation with Core Committee Members. The IAC shall be finalized in the Core Committee Meeting (CCM) and the final draft of IAC shall be provided to all Deans and Heads of the Department and shall be uploaded in the Institute Website for dissemination at least 30 days before the commencement of teaching in an academic session/semester.
4. **Department Academic Calendar & Time Table** - The Time Table Incharge in adherence to IAC shall prepare the Department Academic Calendar (DAC), Master Time Table, Class Wise Time Table, Individual Faculty Time Table, Classroom and Laboratory Timetables and get the same approved by the Head of the Department, Dean Academics and Director at least 7 days before the commencement of teaching in an academic session/semester. The Time Table incharge shall provide a copy of necessary time tables to all the faculty members through the Department Office and upload the same in the Department Website for dissemination.







## C. Course File and Attendance Record

The Course File is an essential and fundamental component of Outcome Based Education Philosophy which is followed at the Annasaheb Dange College of Engineering and Technology, Ashta. A Course File documents, all the essential information, data and statistics regarding the course, its execution, effectiveness and outcomes of the Course. As the Faculty Members of Annasaheb Dange College of Engineering and Technology, Ashta it is MANDATORY to prepare, update, and maintain the course file for all the courses allocated.

1. **Course File** - The Faculty Members must prepare the Course Files for their allocated courses in the prescribed formats, The Course Files should be ready with pre-requisites (ADCET/ACAD/1 - 22) at-least one week before the commencement of the teaching. (Refer to Annexure A for Contents of Course File)
2. **Course File Verification** - The purpose of Course File Verification intends to monitor and enhance the quality of teaching learning process happening in the Department, so as to ensure that all faculty Members are Maintaining and Updating their Course File on a regular basis. The Academic Coordinator has to ensure that Course File Verification is done on a timely basis and report to the Head of the Department if there is any deviation.
3. **Attendance Record** - The faculty members will be provided with an Attendance Record in the beginning of the academic term/semester, the faculty members are supposed to carry the attendance record daily to the class and mark the attendance in the classroom itself. The attendance record also needs to be updated with ISE, MSE and ESE Marks on a regular basis. The attendance record has to be submitted during the Course File Verification. The Consolidated attendance of all the courses should be displayed to the students after every month.







## D. Academic Monitoring and Feedback

1. **Continuous Monitoring of Teaching - Learning process** is very much necessary for ensuring the adherence to planning and to measure the effectiveness of the process. Academic Monitoring is carried out at Department Level.
2. **Weekly Monitoring** of Content Delivery is to be monitored by the Academic Coordinator for ensuring the conduct of lectures/tutorials/practicals as per the timetable and ensuring the adherence to Institute Academic Calendar. The deviations if any are to be reported to the Head of the Department and Dean Academics for corrective actions.
3. **Monthly Monitoring** of the Academics is to be carried out by the Head of the Department through the syllabus coverage report by the Course Coordinators. During the Monthly monitoring the students attendance percentage and percentage of syllabus completed is verified and necessary corrective actions are to be taken by the Head of the Department.

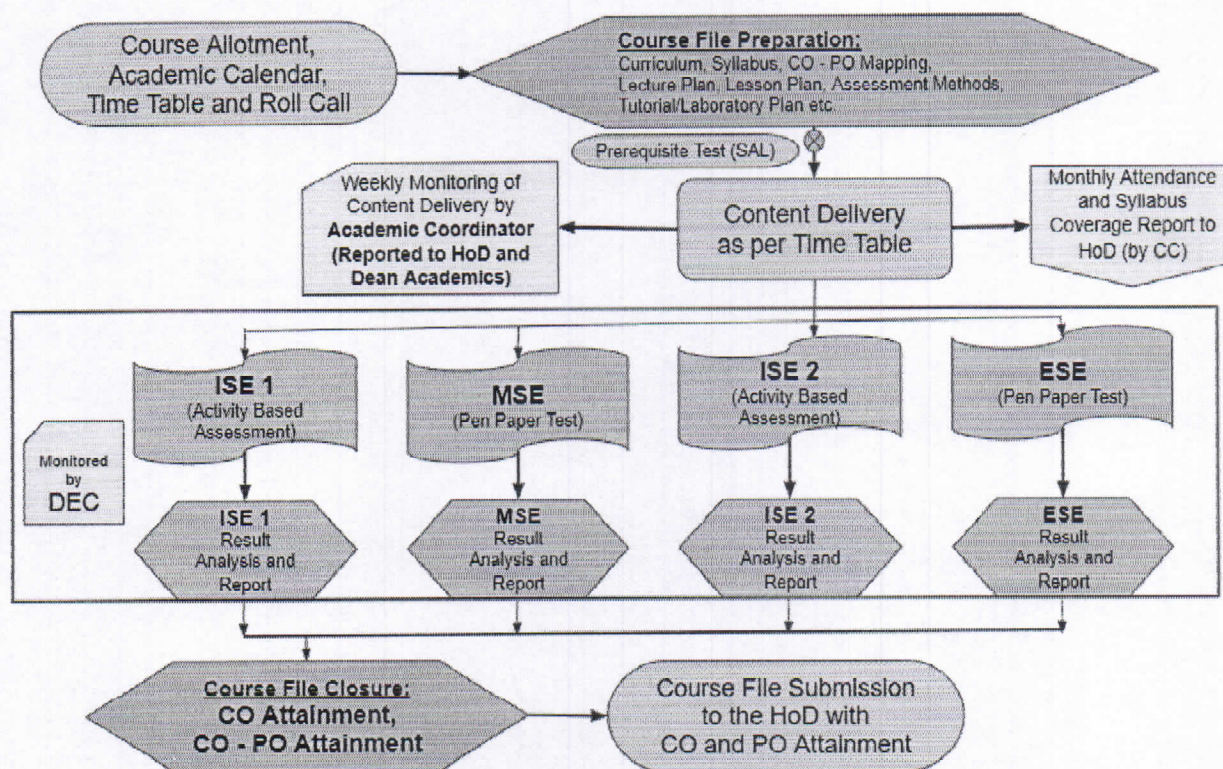
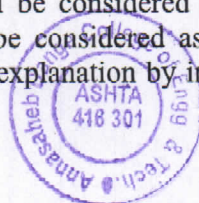


Figure D1. Teaching Learning Process

4. **Student Feedback** - Getting feedback from the students on the academic teaching learning process is crucial for effectiveness. Therefore feedback from the students on the academic teaching learning process is obtained after six weeks from the commencement of academic term/semester using the Online Student Feedback System. The Academic Coordinator will be the responsible person for obtaining the feedback and report the analysis report to the Head of the Department, Dean Academics, Director and Executive Director. The feedback obtained shall be obtained on the 10 point scale and feedback above 9 shall be considered as excellent and an appreciation letter be provided. Feedback less than 7 shall be considered as concern, and a memo shall be issued to concern course coordinator seeking the explanation by introspecting the feedback. For courses with







less than 7 feedback points a second feedback shall be taken after six weeks from the first feedback to check the progress.

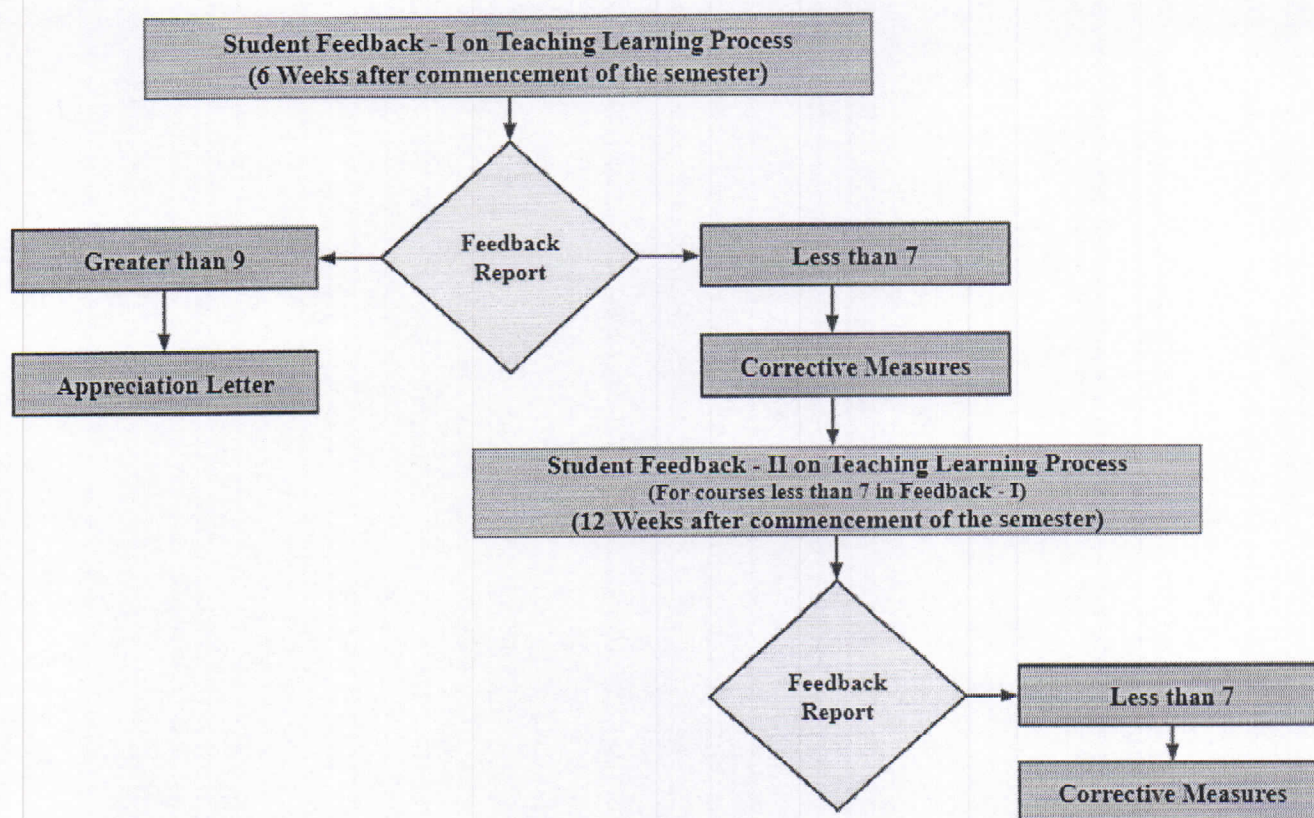


Figure D2. Student Feedback Process







## E. Assessment and Attainment

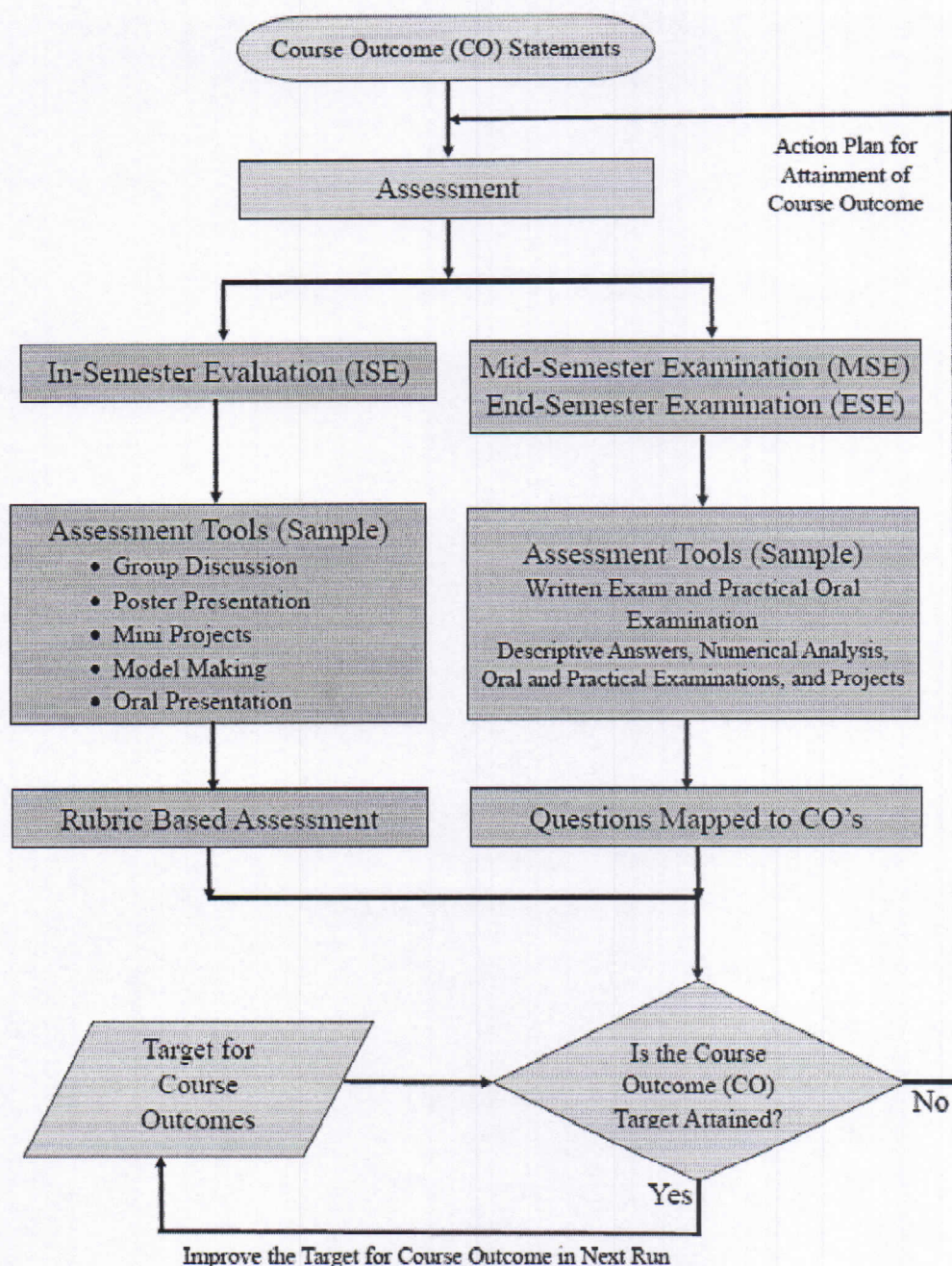
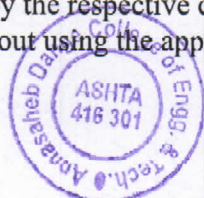


Figure E1. CO Attainment Calculation Flowchart

1. **Assessment Events** - The assessment at ADCET, Ashta is carried out in the following events: In-Semester Evaluation (ISE), Mid-Semester Examination (MSE), End-Semester Examination (ESE). The weightages for each of the above events is defined in the respective revision Curriculum Structure made available in the Department Website is to be followed. MSE and ESE are scheduled and conducted by the Office of Controller of Examinations in adherence to the Institute Academic Calendar(IAC). ISE is to be conducted by the respective course coordinators through Activity Based Assessment(ABA), this has to be carried out using the appropriate Rubrics.







2. **Activity Based Assessment** - The planning for appropriate activity and rubric for ISE is to be carried out by the respective course coordinators should be finalized before the commencement of teaching, the same has to be approved by the Academic Coordinator and the Head of the Department. The activities are to be chosen based on the Mapping of Course Outcomes with Program Outcomes of the course. The Department Exam Coordinator has to prepare a summary of all activities planned to be conducted in an academic term/semester and disseminate the same to students through a Notice/Circular.
3. **Assessment Monitoring** - The Academic Coordinator and the Department Exam Coordinator have to monitor the execution of ISE activities planned and their adherence to the IAC, and collect the necessary proofs from the course coordinators on a timely basis.
4. **Result Analysis** - The MSE and ESE bitwise marks shall be shared by the Office of Controller of Examination through the Department Exam Coordinators (DEC) immediately after the declaration of results. The course coordinators shall prepare the result analysis and provide the same to DEC within one week of sharing the bitwise marks.
5. **Continuous Assessment** - For Laboratory courses the ISE shall be carried out continuously, using the appropriate rubrics and student's performance shall be recorded in the Continuous Assessment Sheet (CAS) as per the institute format.
6. **CO's Attainment** - Target for the Course Outcomes are set by the respective Course Coordinator as a Class Average by referring to the previous year CO Attainment. Course Outcome Attainment calculation shall be carried out by the respective course coordinator at the end of the academic term/semester based on the students performance in the ISE, MSE and ESE. ISE assessment is carried out using the activity based assessment tools with the help of rubrics mapped to CO's. MSE and ESE Assessment is carried out using the written examination and the student performance is through marks obtained for respective CO's. The CO is deemed to attain if 85% of CO Target is achieved. If CO target is achieved then minimum 5% of target in the next run of the course shall be increased. The Course Coordinator shall use the template provided for the CO attainment calculation. If the target is not attained, shall introspect and report the actions to be taken in the next run of the course for the attainment.
7. **PO's and PSO's Attainment** - Using the CO attainment the course coordinator shall calculate the PO Attainment through the course and submit the CO-PO Attainment sheet to the Academic Coordinator, who shall present the same in the Program Assessment Committee (PAC).







## Policy for Weak and Bright Students

**Bright Students** are the students who understand a taught topic relatively faster than the other students in the class. They have more potential than the others in the class to excel.

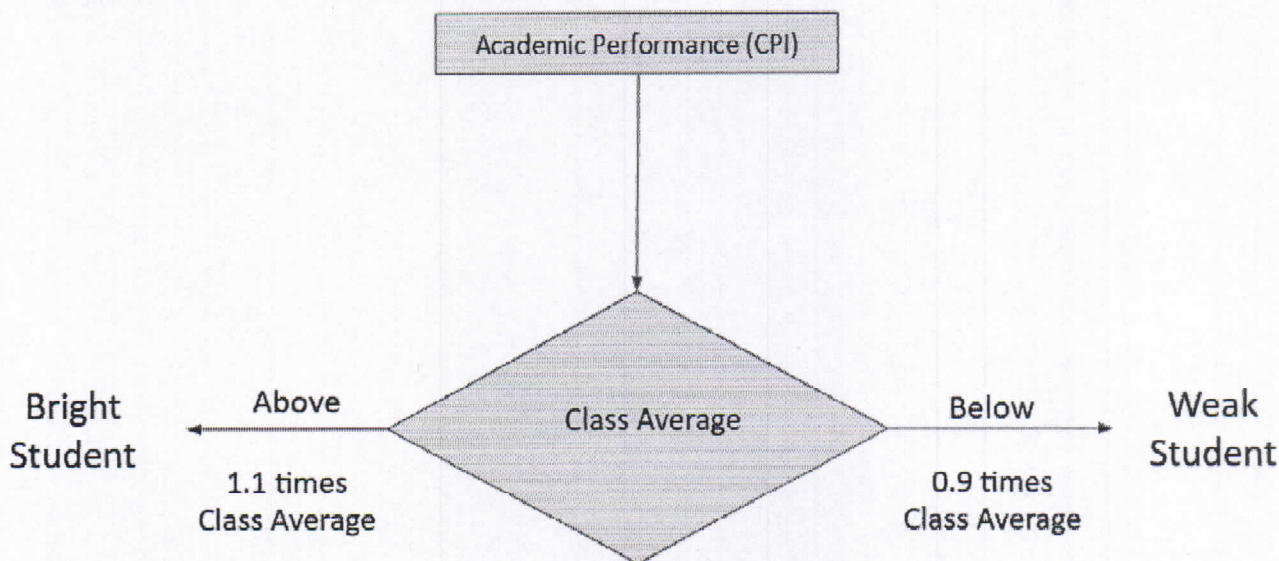
**Weak Students** on the other hand mostly lag behind in their academic pursuit and find it difficult to understand the subject. The poor performance may not be a sign of the poor capacity or talent but may be due to inappropriate teaching methods, socio-economic background, lack of motivation and support, unorganized learning practices or even the inability to converse in a devised medium.

The primary objective of this policy is to assess the learning capacity of the students and provide them guidance accordingly.

The following items enlisted are discussed in this policy,

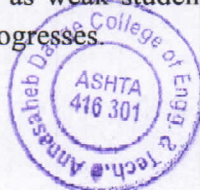
- Identification of the Weak and Bright Students in the class
- To develop significant strategies and scientific implementations to benefit both
- To boost up the confidence of weak students and to minimize the barriers and help them out for enhancing their skills in respect of learning processes
- To encourage to the bright students to be excellent achievers
- To bridge the gap between weak and bright students

### Identification of the Slow and Advanced Learners



At the entry level to the engineering program, the identification shall be carried out using the HSC aggregate percentage/Diploma Final Year aggregate percentage, The students with Cutoff Score more than Class Average shall be termed as advanced learners and students with Cutoff Score less than Class Average shall be termed as slow learners.

The List shall be updated after every semester by the Class Advisor based on the CPI of the students after the End Semester Examination, The students above Mean CPI of the Class shall be termed as bright students, and below mean CPI shall be termed as weak students. Number of weak students in a class is intended to gradually decrease as the semester progresses.







## Strategies for Weak and Bright

### Weak Students:

1. Weekly 01 Hour Remedial Classes for all Program Core/Elective Courses by Course Coordinators - During these classes, teachers are expected to engage in problem solving exercise, provide additional study materials and notes, etc. to the students, direct their creative energies towards concept clarification so as to bridge the knowledge gap & enable them to cope with the academic course. **Attendance is Mandatory for Slow Learners in the Remedial Classes.**
2. Sharing Alternative Learning Resources - Provide access to additional learning resources such as online tutorials, video lectures, and practice problems to cater to different learning styles.
3. Study Skills Workshops - Organize workshops to equip students with effective study skills, time management strategies, and note-taking techniques.
4. Focused Guidance to these students through Mentor-Mentee System

### Bright Students:

1. Encouraging Students to participate in National Level Events
2. Inspire them to get engaged in certificate/value added courses to nurture their skills on SWAYAM, NPTEL, Coursera etc.
3. Guidance to crack competitive examinations and orient them for better career planning and growth.
4. Stimulating the research aptitude by giving them an opportunity to pursue hands -on training on projects beyond the curriculum.

### Impact Analysis of the Policy

After every semester class advisor shall prepare a detailed report of Impact Analysis with the following information,

1. Number of Slow and Advanced Learners in a Class
2. Average CPI of the Class, and Improvement in CPI of Weak and Bright Students
3. Number of Remedial Classes Conducted and Attendance Percentage
4. Activities conducted by department for Weak and Bright Students
5. Action Points for Implementation in the Next Semester





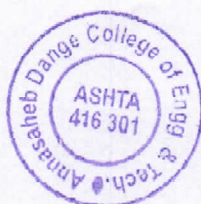


## **F. Academic Audit**

1. Academic audit is a procedure of verifying and confirming the performance of academic practices and procedures against planned/standard procedures. Academic audit is the auditing or assessment of the quality of the academic process undergoing in the Institute.
2. Academic audit is performed by an expert person or committee composed of an academic expert's body which is Internal and External to the Institution. The aim of academic audit is to assess the existing process and suggest modifications in the academic process to improve effectiveness of teaching learning.
3. Academic Audit shall be conducted after the completion of each academic year. The committee for Academic Audit shall be constituted by the Dean Academics based on the recommendations of the Head of the Department.

The following are the documents and items are to be audited during the process,

- a. Framing course outcomes in line with the program outcomes
- b. Mapping of CO's with PO's
- c. Teaching Plan adherence
- d. Lesson plan
- e. Actions for slow and advanced students
- f. Student attendance records
- g. ICT utilization in teaching learning
- h. Innovative methods
- i. Real life examples
- j. Feedback from the students
- k. Distribution of learning material
- l. Quality of Textbooks, reference books used
- m. Quality of continuous assessment
- n. MSE & ESE Question Papers
- o. Result Analysis and CO - PO Attainment
- p. Gaps in attainment and actions recommended







**Annexure A: Contents of the Course File**

| SL.N<br>o | Academic<br>Format No                                            | Description                                                    |
|-----------|------------------------------------------------------------------|----------------------------------------------------------------|
| 1         | ADCET/ACAD/1                                                     | Institute and Department Vision and Mission                    |
| 2         | ADCET/ACAD/2                                                     | Program Educational Objectives (PEOs)                          |
| 3         | ADCET/ACAD/3                                                     | Program Outcomes (POs) and<br>Program Specific Outcomes (PSOs) |
| 4         | ADCET/ACAD/4                                                     | Course Objective and Course Outcomes (COs)                     |
| 5         | ADCET/ACAD/5                                                     | Course Curriculum                                              |
| 5         | ADCET/ACAD/6                                                     | Mapping of COs with POs & PSOs                                 |
| 6         | ADCET/ACAD/7                                                     | Teaching Portfolio                                             |
| 7         | ADCET/ACAD/8<br>ADCET/ACAD/9                                     | Institute Academic Calendar and Department Academic Calendar   |
| 8         | ADCET/ACAD/10<br>ADCET/ACAD/11<br>ADCET/ACAD/12<br>ADCET/ACAD/13 | Class, Faculty, Laboratory, Classroom Time Table               |
| 9         |                                                                  | Roll Call List                                                 |
| 10        | ADCET/ACAD/14<br>ADCET/ACAD/15                                   | Teaching Plan/Tutorial Plan/Laboratory Plan                    |
| 11        | ADCET/ACAD/16<br>ADCET/ACAD/17                                   | Theory/Tutorial/Practical Attendance Record                    |
| 12        | ADCET/ACAD/18                                                    | Rubrics for Practical/Tutorial Assessment                      |
| 13        | ADCET/ACAD/19                                                    | Practical/Tutorial Assessment Record (CAS)                     |
| 14        | ADCET/ACAD/20                                                    | Seminar/Project Attendance Record (If Applicable)              |
| 15        | ADCET/ACAD/21                                                    | Seminar/Project Assessment Record (If Applicable)              |
| 16        | ADCET/ACAD/22                                                    | Rubrics for Seminar/Project Assessment (If Applicable)         |
| 17        | ADCET/ACAD/23                                                    | ISE Assessment Assignment with Rubrics                         |
| 18        | ADCET/ACAD/24                                                    | Monthly Course Report (MCR)                                    |
| 19        | ADCET/ACAD/25                                                    | List of Slow and Advanced Learners, Action Plan                |
| 20        | ADCET/ACAD/26                                                    | CO Attainment and CO - PO Attainment                           |
| 21        |                                                                  | Student Assessment Record                                      |
| 22        |                                                                  | ISE I Result Analysis                                          |
| 23        | ADCET/ACAD/26A                                                   | MSE Result Analysis                                            |







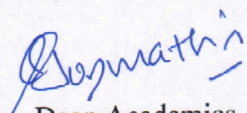
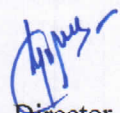
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(An Empowered Autonomous Institute)  
**Office of Dean Academics**



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|----|--|-------------------------------------|
| 24 |  | ISE 2 Result Analysis               |
| 25 |  | ESE Result Analysis                 |
| 26 |  | MSE and ESE Question Paper          |
| 27 |  | Sample ISE 1 & 2 Assessment Records |
| 28 |  | Lecture Notes, Reference Materials  |

**Note:**

1. The formats for the contents of the Course File documents and other details should be obtained from the Academic Coordinator, before the commencement of the semester.
2. The List mentioned above is indicative there may be additions in the documents to be maintained depending on the execution, if any additions the same will be communicated to all through HoD by Office of Dean Academics.

|                                                                                                       |                                                                                                   |
|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <br>Dean Academics | <br>Director |
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