

# Welcome



**Galgotias**  
College of Engineering and Technology  
Greater Noida

## Contents

- ❑ Outcome Based Education
- ❑ AKTU B Tech Ordinance and Syllabus : Important Points
- ❑ Academic Process : B Tech – I Year : 2019-20
- ❑ Students Rules (Important)
- ❑ GCET ERP (Academics)

# Outcome Based Education (OBE)

## Explaining Accreditation

Dictionary meaning of Accreditation is : *the action or process of officially recognizing someone as having a particular status or being qualified to perform a particular activity*. It's a benchmarking process.

"Accreditation" is review of the quality of higher education institutes / programs.

**There are two type of institutions :**

Tier-I : Universities that can design own syllabus

Tier-II : Affiliating institutes, follow the syllabus of university, do not have freedom to design syllabus, like GCET – affiliated to AKTU

## **Outcome-Based Education (OBE)**

Outcome based education (OBE) is student-centered instruction model that focuses on measuring student performance through outcomes. **Outcomes include knowledge, skills and attitudes.**

"Outcome-Based Education" (OBE) model is being adopted at a fast pace at Engineering colleges in India at the moment.

In the OBE model, the required knowledge and skill sets for a particular engineering degree is predetermined and the students are evaluated for all the required parameters (Outcomes) during the course of the program.

There are 12 **Program Outcomes (POs)** which are to be inculcated in an engineer through the curriculum of the program. These are :

- PO1 : Engineering knowledge**
- PO2 : Problem analysis**
- PO3 : Design / development of solutions**
- PO4 : Conduct investigations of complex problems**
- PO5 : Modern tool usage**
- PO6 : The engineer and society**
- PO7 : Environment and sustainability**
- PO8 : Ethics**
- PO9 : Individual and team work**
- PO10 : Communications**
- PO11 : Project management and finance**
- PO12 : Life-long learning**

To inculcate / develop POs in an engineer through the curriculum of the program, there are many subjects (or termed as courses in OBE) and each course has its outcome (outcomes are the results or developments after learning the course). These are :

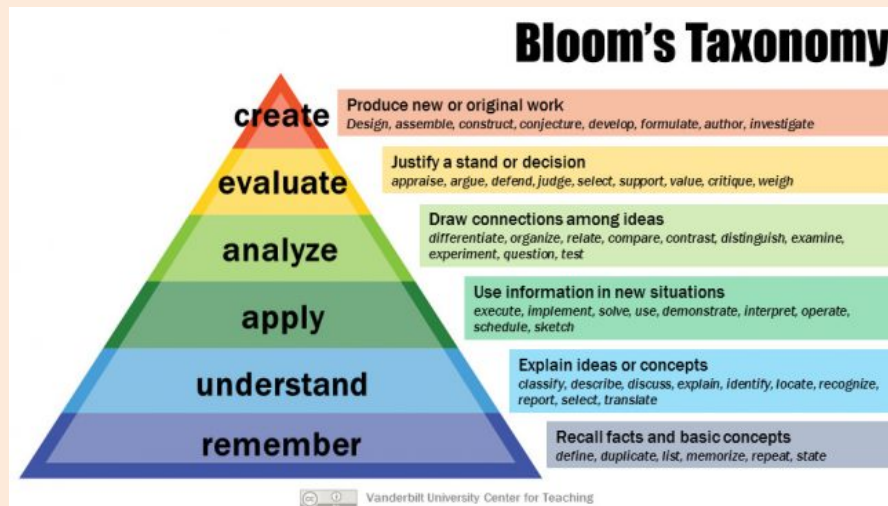
- a. For each Theory Subject → 5-8 COs (5 in I Year)
- b. For each Lab subject / course → 3 COs

To compute PO attainment, CO attainment of all the subjects (theory and lab, both) is to be computed (computed through marks obtained in various assessment components).

Assessment Components includes Direct Assessment (Internal Exams like HA, Sessionals / CAE etc; and External – AKTU – Exams) and Indirect Assessment (Course End Survey)

## Bloom's Taxonomy

To define the CO, Bloom's Taxonomy is used that defines the learning levels. Various learning levels are :



[Click here for COs and CO-PO Mapping : B Tech – I Year : 2019-20](#)

# **AKTU Ordinance and Syllabus**

## **B. Tech. – First Year**

### **B. Tech. Ordinance : Important Rules**

#### **Attendance Rule**

(as per clause 3 of B Tech Ordinance of AKTU)

Every student is required to attend all the lectures, tutorials, practical and other prescribed curricular and co-curricular activities. Thus, 100% attendance is required.

The attendance can be condoned upto 25% on medical grounds or for other genuine reasons beyond the control of students.

No student will be allowed to appear in the end semester examination and/or sessionals, if he / she does not satisfy the overall average attendance requirements and such candidate(s) shall be treated as having failed.

### Examination Rules (Clause 8)

The performance of a student in a semester shall be evaluated through continuous class assessment and end semester examination. The continuous assessment shall be based on class tests, assignments/tutorials, quizzes/viva-voce and attendance.

**The minimum pass marks in each theory subject (including sessional marks) shall be 40% with a minimum of 30% marks in each theory paper in the end semester examination.**

The minimum passing grade is “E”, including in Seminar (having only internal marks).

**A candidate, in order to PASS, must secure 5 or more SGPA (Semester Grade Point Average) in each semester of session.**

The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e

$$\text{SGPA (Si)} = \sum (C_i \times G_i) / \sum C_i$$

where  $C_i$  is the number of credits of the  $i$ th course and  $G_i$  is the grade point scored by the student in the  $i$ th course.

Level	Outstanding	Excellent	Very Good	Good	Above Average	Average	Poor	Fail
Letter Grade	A <sup>+</sup>	A	B <sup>+</sup>	B	C	D	E	F
Grade Points	10	9	8	7	6	5	4	00
Score (Marks) Range (%)	≥ 90 (90-100)	<90 (80-89)	<80, ≥70 (70-79)	<70, ≥60 (60-69)	<60, ≥50 (50-59)	<50, ≥45 (45-49)	<45, ≥40 (40-44)	< 40 (0-39)

**The Cumulative Grade Point Average (CGPA) shall be calculated at the end of last semester of the program.**

The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.

$$\text{CGPA} = \Sigma (C_i \times S_i) / \Sigma C_i$$

where  $S_i$  is the SGPA of the  $i$ th semester and  $C_i$  is the total number of credits in that semester.

### **Promotion Rule (Clause 9)**

A candidate shall be eligible for provisional promotion to the next academic year of study provided he/she secures SGPA of 5 or more in each semester, separately.

Sl. No.	Code	SUBJECT	PERIODS				EVALUATION SCHEME			END SEMESTER		TOTAL	CREDIT
			L	T	P	CT	TA	Total	P	TE	PE		
3 WEEKS COMPULSORY INDUCTION PROGRAM													
1	KAS101/ KAS102	Physics/Chemistry	3	1	3	30	20	50	25	100	25	200	5.5
2	KAS103	Mathematics-I	3	1	0	30	20	50	-	100	-	150	4
3	KEE 101/ KCS101	Basic Electrical Engineering/Programming for Problem Solving	3	1	2	30	20	50	25	100	25	200	5
4	KCE101/ KWS101	Engineering Graphics & Design/Workshop Practices	1	0	4	-	-	-	25	-	25	50	3
		MOOCs (For B.Tech. Hons. Degree)*											0
		TOTAL										600	17.5

SEMESTER II													
Sl. No.	Code	SUBJECT	PERIODS			EVALUATION SCHEME				END SEMESTER		TOTAL	CREDIT
			L	T	P	CT	TA	Total	PS	TE	PE		
1	KAS201/ KAS202	Physics/Chemistry	3	1	3	30	20	50	25	100	25	200	5.5
2	KAS203	Mathematics II	3	1	0	30	20	50	-	100	-	150	4
3	KEE201/ KCS201	Basic Electrical Engineering/Programming for Problem Solving	3	1	2	30	20	50	25	100	25	200	5
4	KCE201/ KWS201	Engineering Graphics & Design/Workshop Practices	1	0	4	-	-	-	25	-	25	50	3
5	KAS204	Professional English	2	0	2	30	20	50	-	100	-	150	3
	MOOCs (For B.Tech. Hons. Degree)*												0
	<b>TOTAL</b>											750	20.5

Mini Project or Internship (3-4 weeks) shall be conducted during summer break after II semester and will be assessed during III semester

Upon securing “E” or above grade (A<sup>+</sup>, A, B, C, D, E), student will be treated as PASS in that course and will be awarded the credits as mentioned in last column of above shown table. In entire semester, to PASS, student has to secure more than 50% of total credits. OR “E” or above grades in all the courses of the semester.

### Award of Division

A candidate who qualifies for the award of the degree by securing E or above grades in all subjects of all the semesters within a maximum period of eight semesters / six semesters as applicable, after his/her commencement of study in the 1<sup>st</sup> / 3<sup>rd</sup> semester an addition secures CGPA not less than 6.5 shall be declared to have passed the examination in **FIRST DIVISION**.

A candidate who qualifies for the award of the degree securing E or above grades in all subjects pertaining to all semesters in his/her first attempt within eight consecutive semesters (four academic years) / six consecutive semesters (three academic years) as applicable, and in addition secures a CGPA of 7.5 and above for the semesters I to VIII (III to VIII) shall be declared to have passed the examination in **FIRST DIVISION WITH HONOURS**.



**AICTE Guidelines in Model Curriculum**

After successful completion of 160 credits, a student shall be eligible to get Under Graduate degree in Engineering.

For registration to MOOCs Courses, the students shall follow NPTEL Site <http://nptel.ac.in/> as per the NPTEL policy and norms. The students can register for these courses through NPTEL directly as per the course offering in Odd/Even Semesters at NPTEL. These NPTEL courses (recommended by the University) may be cleared during the B. Tech degree program (not necessary one course in each semester).

The student shall be awarded Hons. Degree (on successful completion of MOOCs based 20 credit, NPTEL Courses of 4 Weeks, 8 Weeks and 12 Weeks shall be of 2, 3 and 4 Credits respectively) only if he/she secures 7.50 or above CGPA and passed each subject of that Degree Programme in single attempt without any grace marks.

**Academic Process****B. Tech. – First Year**

All the students are required to attend all the classes and must participate in all the academic activities mandatorily. Further, no relaxation in attendance will be given in any case owing to any of the reasons. Students having attendance less than AKTU rules, shall be detained from appearing in sessionals and AKTU exam, as well.

For each subject, students will be given a Question Bank (comprising about 25 questions per unit, covering previous years' AKTU question papers), Tutorial Sheets (2 sheets per CO, each comprising 3-5 questions) and Home-assignments (1 per CO).

All academic contents and important notices are being emailed by First Year Coordinator (HODFY@GALGOTIACOLLEGE.EDU).

**General Points for Urgent Compliance # B. Tech. – I Year : 2019 – 20**

- Use of mobiles and other electronic gadgets (except permitted calculator) in class rooms, tutorials, labs and exams etc. is strictly prohibited. If observed using, gadgets including mobiles, will be confiscated and will be returned only after 15 days, subject to written permission of Director.
- It's the responsibility of student to remain aware about issued information / notices / emailing of contents etc. In case any students do not get email / contents, it's his / her responsibility to get the emailed contents / notices etc. (sent to the students) from his / her classmates, on his / her own.
- The attendance will be counted w.e.f. first day of commencement of classes. Further, no relaxation in attendance will be given in any case owing to any of the reasons.
- As per the norms of affiliating Dr APJ Abdul Kalam Technical University (AKTU, B Tech Ordinance, Clause 3 of Attendance), Lucknow, student has to maintain the minimum attendance of 75% in aggregate, failing which he/she shall be detained and would not be permitted to appear in the End Semester University Examinations and Internal Examinations, as well.

- For NPTEL / MOOC course, students have to enroll on their own. Studies will be done through online mode (no class-room / lab will be provided). Students have to appear in the exams – which will be conducted by NPTEL / MOOC and grades / marks will be awarded by NPTEL / MOOCs authorities.
- All the students are required to appear in all the conducted tests (CAE-I and CAE-II) mandatorily with full preparation so as to secure good sessional marks. CT marks will be awarded on the basis of all the conducted tests.
- In case of any problem / grievance, students must approach to their assigned class coordinator for its resolution / help. They will communicate with the students' parents, must be aware with students' absenteeism and will maintain all the related records etc.

**Important Points related to Academics # B. Tech. – I Year : 2019 – 20**

- For each theory course, one lecture per week is provided for Remedial Classes / Doubt Clearing Classes / Assessment Tests. Students must utilize this lecture for clearing their doubts, doing revision / in getting academic help related to the course concerned. Its attendance will be maintained by the concerned faculty in his / her attendance register (but, will not be uploaded at ERP).
- Course teachers concerned can utilize the lecture as mentioned above for revision / doubt clearing / conduct of assessment test in class concerned.
- Home-assignments and other academic contents will be emailed to all the students concerned by First Year Coordinator for timely compliance. Assessment Tests will be conducted from the emailed contents.
- All the home-assignments are to be solved in a hard bound register with indexing and it is to be submitted by each student to the subject teacher concerned as per schedule.

- Assessment Tests will be conducted in the concerned class and to write the answer / solution, student must bring separate register (for each theory course).
- Absentees of sessionals are required to submit the solution of question paper concerned – without choice (in addition to regular home-assignment) on same hard bound register. If question are same, student has to write answer again.
- All the lab experiments should be completed within 7-9 weeks. Evaluation should be continuous (as per schedule and prescribed format) and no extra slot will be provided for internal evaluation of labs. Lab quiz and / or viva will also be conducted and be considered for award of internal marks.
- For each course, there are two type of assessment; Internal Assessment (generally 50 marks for a theory and 25 marks for lab course) and External Assessment (generally 100 marks for a theory and 25 marks for lab course). This is mentioned in concerned Teaching and Evaluation Scheme, issued by AKTU.

- There is no passing mark in internal assessment. To pass in a theory subject, student has to secure 30% marks in External Exam (to be conducted by AKTU, End Sem Exam), 40% marks in a subject (adding internal and external marks) and 50% in a semester. For lab subjects, the passing marks are 50%.
- Internal evaluation to award sessional marks of each subject will include :  
**Theory Subjects** : Marks of Class Tests (CT=30), Teacher's Assessment (TA=10) and Attendance (AT=10)  
**Lab Subjects** : Marks of Continuous Evaluation (CE=15), Teacher's Assessment (TA=5), including Quiz / Viva etc. and Attendance (AT=5)
- CT marks will be awarded on the basis of **all the conducted tests** (absentees / UFM will be awarded zero marks).
- To award TA marks, all the assignments and CO-based assessment tests (conducted in classroom) will be considered. AT marks will be awarded on the basis of attendance percent of course concerned.

In CAE-I and CAE-II, about 60% of the questions will be from the question bank concerned.

The syllabus in CAE-I will be approximately 40% of total syllabus of the subject concerned, taught in the class just before the commencement of CAE-I. CAE-II will be conducted from full syllabus.

All the students are required to appear in all these exams. Absentees / poor performing students (who obtained less than 50% marks in CAE-I) are required to submit the solution (on same hard bound register) of that test paper to teacher concerned. In case of repetition of questions, students are required to write answer repetitively.

In case of any problem / help, students are required to contact respective class coordinator. Further, student can contact HOD-Applied Sc. / First Year Coordinator.

For Ragging / discipline related problems, feel free to contact any of the proctorial board members / Chief Proctor / HOD / Director.

Please note that 100% attendance, submitting assignments and appearing in all the tests with full preparation is required in order to secure good marks in sessionals and university examination, so as to qualify the first year.

## **Students Rules (Important)**

**Students of Galgotias College of Engineering & Technology are required to remain aware about issued notices, rules etc. and must follow the general rules, as deemed, sincerely which are not limited to the following :**

- ☐ Classes start from 9.30 a.m. and may continue up to 5.00 p.m. on all the five days of a week (Mon-Fri). Students are advised to come to the Institute by 9:25 a.m. to attend classes. As per AKTU rules 75% attendance is mandatory to appear in sessional and end semester examinations, as well.
- ☐ Use of mobile phone during class hours/sessions, library, labs, workshop area etc. is strictly prohibited. If found using mobile, it will be confiscated and will be returned after 15 days.
- ☐ Every student must carry his/her Identity Card while entering the campus and identify him/herself with help of the Identity Card whenever asked for.
- ☐ No guests/visitors shall be allowed with the students in the class/lab/ library.

- ❑ Students must help keep the institute neat and clean and also preserve and maintain the greeneries. Eatables/beverages are not allowed inside the study areas including labs, library, workshops. Students can have their tiffin inside the canteen or class room.
- ❑ Smoking and/or chewing of pan masala/tobacco etc. and/or consumption of alcoholic drinks/drugs etc. are prohibited in the premises of the institute.
- ❑ Students must conserve electricity and water. They must switch off lights & fans when they leave the class room, laboratories.
- ❑ Students are advised to keep themselves updated on norms notices etc and follow them accordingly.
- ❑ All the labs follow certain safety and academic norms for their smooth functioning. Students are required to follow these, keeping themselves updated.

- ❑ Any removable data storage device or hardware attachments for software operations cannot be taken in or out without written approval of the department in charge. A violation of this will be considered as an intention for piracy / theft.
- ❑ While studying at the Institute, students will have to operate machines and tools carefully and observe all safety regulations and see that no damage is caused to self, others or to the Institute's property, machinery and equipment. In case it is found that they have caused any damage to the Institute's property, they shall be required to reimburse or repair the damage caused. Any decision regarding the extent of their liability on such account shall be at the discretion of the Institute, which shall be final.
- ❑ The nature of learning in any program may require the students to purchase tools, stationary items from time to time. Specific instructions in this regard will be given by the concerned department/faculty at the beginning of various courses.

- ❑ In case of medical emergency in the laboratory, the student must inform the faculty member/technical assistant without any hesitation.
- ❑ All the students are required to come to college in descent formal dress (not awkward dresses). Male Students (boys) wearing Shorts / Lower / Sleepers / Baniyan like T-shirts, very short Shirts / Religious Dresses and Female Students (girls) wearing short T-shirt / Nicker / Shorts / Exposing or Religious Dresses will not be permitted in the college premises. If found, the student might be asked to leave the campus for that day.

### **TOOLS FOR CONTROLLING INDISCIPLINE**

The tools that are used for controlling the students and keeping them disciplined are as follows:

- Monetary fine
- Suspension
- Rustication
- Award of red marks
- Withdrawal of internet facility
- Withdrawal of library facility
- Withdrawal of counsellor facility
- Not allowing the students to participate in the field he/she desires or can excel
- Calling the parents to the college and talking to them
- Extra assignments
- Debarred from T&P for any placement assistance



## **GCET ERP (Academics)**

- ❖ Access URL → <http://gcet.mastersofterp.in/rfcampusgcet/login>
- ❖ Enter login ID and password. Login ID for students is ADMISSION NO (in Capitals). Default password is either ADMISSION NO (in capitals) or Date of Birth in DDMMYYYY format.
- ❖ Upon very first login, change your password.
- ❖ On this ERP Portal, you can remain aware about your time-table, attendance and other related information.
- ❖ In case of any problem, do contact with ERP Office (Ground Floor of A-block)

- ✓ AKTU ERP will also be functional very soon (visit AKTU.AC.IN). Information available at aktu.ac.in (circular section) will be considered as final.
- ✓ On its Attendance Monitoring System (AMS), attendance is to be uploaded by all the teachers and detention will be done through this AMS.
- ✓ Remain update with all circulars and notices either emailed or notified at notice board near to D-313.
- ✓ Do not do any enquiry on Phone.
- ✓ Follow all applicable rules, as deemed, if not notified.

**Wishing you a  
bright professional life...**



**Dr. Rajesh Tripathi**  
**HOD - Dept of Applied Science**



**Dr. Brijesh Singh**  
**First Year Coordinator**