

# ADITYA ENGINEERING COLLEGE

An Autonomous Institution

Approved by AICTE • Permanently Affiliated to JNTUK • Accredited by NAAC with 'A' Grade Recognised by UGC under sections 2(f) and 12(B) of UGC Act, 1956
Aditya Nagar, ADB Road, Surampalem - 533437, Near Kakinada, E.G.Dt., Ph:99498 76662

# **Specifications by Statutory bodies**

The institution is following the norms and requirements as stated in AICTE Annexure - I, Appendix 3 – 8

# Annexure: I Norms and Requirements

Appendix 3

# Norms for Intake & Number of Courses / Divisions in the Technical Institutions Post Graduate Degree and Post Graduate Diploma Level

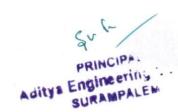
		Intake per division without foreign collaboration	PG divisions without foreign collaboration	Total without foreign collaboration	Intake per Division with Foreign collaboration / Twinning	
MCA		60	3	180	60	
Management		60	3	180	60	
Engineering Technology	&	30*	6	180	30	
Pharmacy	1112	30*	6	180	30	
Architecture & T Planning	`own	30*	6	180	30	
Applied Arts & C	Crafts	30*	6	180	30	
HMCT		30*	6	180	30	

- Out of the two divisions allotted in Post Graduate and Post Diploma level, one shall be of "Cyber Security" or Cyber Security related courses in Computer / IT branches of Engineering / Technology.
  - Minimum of 18 seats in steps of 6 up to Maximum 24
  - Additional 6 seats above 24 seats if the course is accredited.
  - New Course with Intake less than 18 shall not be approved. However, existing Courses where approved intake is less than 18 may continue with existing Intake.

# Private Limited or Public Limited Company/Industry Establishing Diploma or Under Graduate or Post Graduate Institute

	Intake per Division	Maximum number of UG courses & / or divisions allowing the new Institution (Single shift working)				
		Division/s	Intake			
Engineering & Technology	60	10	600			
Pharmacy	60	6	360			
Architecture & Town Planning	60	6	360			
Applied Arts & Crafts	60	6	360			
НМСТ	60	6	360			

a New Technical Institution in Engineering & Technology, Pharmacy, Architecture & Town Planning, and HMCT established by a Private Limited or Public Limited Company/Industry having turnover of at least Rs



	100 Cr per year for previous 3 years shall be eligible for application and granted approval for intake as above following due procedure as per Approval Process Handbook.
b	The Institute setup by such a Private Limited or Public Limited Company/Industry shall be governed by the rules as in Chapter 1
С	Private Limited or Public Limited Company/Industry Establishing Diploma or Under Graduate or Post Graduate Institute may choose any course from the approved list of any size as intake not exceeding maximum as above and in any combination in the same program.

# Norms for Land requirement and Building Space for Technical Institution

# 4.1 Land Requirements for Technical Institutions

	Land Area r	equirement in	Acres					
			certify that the ral area)	Rural Places as defined by Compete Authority				
	UG Programs	Diploma	Stand alone Post Graduate Programs	UG Programs	Diploma	Stand alone Post Graduate Programs		
Engineering & Technology	2.50	1.50	2.5	10.0	5.00	10.0		
Pharmacy	0.75	0.75	0.75	2.00	2.00	2.00		
Architecture & Town Planning	1.00	1.00	1.00	2.50	2.50	2.50		
Applied Arts & Crafts	0.75	0.75	0.75	2.00	2.00	2.00		
HMCT	1.00	1.00	1.00	2.50	2.50	2.50		
MCA			0.50			1.50		
Management			0.50		T	1.00		

4.1.1	a	Land area shall cover hostel facilities, if any
	b	Land shall be in one continuous piece.
	С	Considering hilly nature of land in North Eastern States, land may be made available in 3 pieces which are not away from each other by more than 1 Km

# 4.2 Built-up Area Requirements

4.2	a	The Institution area is divided in, Instructional area (INA, carpet area in sq. m.), Administrative area (ADA, carpet area in sq. m.), Amenities area (AMA, carpet area in sq. m.).
	b	Circulation area (CIA) is equal to 0.25 × (INA+ADA+AMA).
	С	Total built up area in sq. m. is equal to (INA+ADA+AMA) + (CIA).

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# **Engineering /** Technology (Degree Institute)

	Number of Divisions UG (Class of 60)	Duration of course in Yrs	Class Rooms(C)	Tutorial Rooms(D) PG Class rooms (H)	Laboratory (including additional WS/Labs for category "X" courses)	Research Laboratory	Work Shop (for all courses)	Additional WS/Labs for Category "X" courses	Computer Centre	Drawing Hall	Library & Reading Room	Seminar Halls
Carpet Area in sqm per room			66	33	66	66	200	200	150	132	400	132
Number of rooms required for new Institution	Α	4	C=A	D=C/4	02/Course	-	1	-	1	1	1	1
Total Number of rooms (UG)	Α	4	C=Ax4	D=C/4	10/Course#	-		2/Cour				410
Total Number of rooms (PG)	F	2	-	H=Fx2	1/Speciali sation	1/Speci alisatio n	1	(Maximu m 4 )	1	1	1	1/Course

Category X of courses: Mechanical, Production, Civil, Electrical, Chemical, Textile, Marine, Aeronautical and allied courses of each.
Classrooms, Tutorial rooms and Laboratories required for 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup> year may be added progressively to achieve total number as stated.
Additional Library (Reading room) area of 50 sq m / per 60 student (UG+PG) intake beyond 420.
UG laboratories if shared for PG courses shall be upgraded to meet requirements of PG curriculum
*Progressive requirement, 2 <sup>nd</sup> year onwards shall be calculated as 3+3+2 labs/course
*Additional 5 Labs/Course when number of divisions are more than 2/course.
Round off fraction in calculation to the next integer.

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# Pharmacy (Degree Institute)

	Number of Divisions UG (Class of 60) PG (Class of 18)	Duration of course in	Class Rooms	Tutorial Rooms	Laboratory (includes Machine room & Instrumentation room)	Research Laboratory	Animal House	Computer Centre	Library & Reading Room	Seminar Hall
Carpet Area in sqm per room			66	33	75	75	75	75	150	132
Number of rooms required for new Institution	Α	4	C=A	D=C/4	4	-	1	1	1	1
Total Number of rooms (UG)	Α	4	C=Ax4	D=C/4	12	-				
Total Number of rooms (PG)	F	2	-	H=Fx2	1/Specialisat	1/Specialisatio n	1	1	1	1

1	Laboratories include Machine room & Instrumentation room
2	Classrooms, Tutorial rooms and Laboratories required for 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup> year may be added progressively (3+3+2) to achieve total number as stated.
3	UG Laboratories if shared for PG courses shall be upgraded to meet requirements of PG curriculum.
4	Round off fraction in calculation to the next integer

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#### Architecture & Town Planning (Degree Institute)

	Number of Divisions UG (Class of 60) PG (Class of 18)	Duration of course in Yrs	Class Rooms(C)	Tutorial Rooms(D) PG Class rooms (H)	Laboratory including Computer Laboratory	Research Laboratory	Model making & Carpentry Workshop	Studio / Material Museum	Computer Centre	Library & Reading Room	Seminar Halls
Carpet Area in sqm per room			66	33	66	66	200	132	75	150	132
Number of rooms required for new Institution	Α	5	C=A	D=A/4	1	-	1	1	1	1	1
Total Number of rooms (UG)	Α	5	C=Ax5	D=C/4	5	-					
Total Number of rooms (PG)	F	2	-	H=Fx2	1/Specialisati on	1/Speciali sation	1	5	1	1	1

- Classrooms, Tutorial rooms and Laboratories required for 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> year may be added progressively (1+1+1+1) to achieve total number as stated. UG laboratories if shared for PG courses shall be upgraded to meet requirements of PG curriculum.
- 2 Round off fraction in calculation to the next integer

#### Administrative Area (Carpet Area) in sq m

	Principal/Director Office	Board Room	Office all inclusive	Department Offices	Cabins for Head of Departments	Faculty Rooms	Central Stores	Maintenance	Security	Housekeeping	Pantry for staff	Examinations Control Office	Placement office
Carpet Area in sqm per room	30	20	150* 300\$	20	10	5	30	10	10	10	10	30	30
Number of rooms required for New Technical Institution	1	1	1			First Year Student intake/15	1	1	1	1	1	1	
Total Number of rooms	1	1	1	1/Dept	1/Dept	One per teaching faculty (as per	1	1	1	1	1	1	1

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	norms) in the Institution	
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- 1 Technical Campus having more than one Program
- 2 \* Technical Institution having one Program

#### Amenities Area (Carpet Area) in sqm

	Toilets (Ladies & Gents)	Boys Common Room	Girls Common Room	Cafeteria	Stationery Store & Reprography	First Aid cum Sick room	Principal 's quarter	Guest House	Sports Club / Gymnasium	Auditorium / Amphi Theater	Boys Hostel	Girls Hostel
Carpet Area in sqm per room for Technical Campus having more than one Program	350*	100	100	150	10	10	150	30	200	400	Adequate	Adequate
Carpet Area in sqm per room for Technical Campus having one Program	150\$	75	75	150	10	10	150	30	100	250		
Number of rooms required for New Technical Institution	Adequate	1	1	1	1	1		_		-		-
Total Number of rooms	Adequate	1	1	1	1	1	Desired	Desired	Desired	Desired	Desired	Desired

- 1 \*Estimated total area for Technical Campus having more than one Program
- 2 S Estimated total area for Technical Campus having one Program

#### Circulation Area in sqm

4.2.4 a Circulation area of 25% of sum of Instructional, Administrative and Amenities area is desired covering common walk ways, staircases, entrance lobby

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Norms for Books, Journals, Library facilities, Computer, Software, Internet, Printers and Laboratory Equipments for Technical Institution

# 5.1 Computers, Software, Internet and Printers

		Number of PCs to students ratio (Min 20 PCs)	Legal System Software®	Legal Application Software*	LAN & Internet	Mail Server & Client	Internet Mbps / intake of 240 students with Bandwidth Contention of 1:1  (Min 1 Mbps)	Printers including Color Printer (% of total no of PC's)
Engineering /	Dip	1:6	00	00				400
Technology	UG	1:4	03	20	All	Desired	02	10%
	PG	1:2			001470-011778-4020-201104			100
Pharmacy	Dip	1:6	01	10	All	Desired	01	5%
Pharmacy	UG	1:6						3%
	PG	1:6						
Architecture &	Dip	1:6		10	All	Desired	01	
Town Planning	UG	1:5	01					5%
	PG	1:5						
Applied Arts &	Dip	1:5		40	All	Desired	01	F0/
Crafts	UG	1:5	01	10				5%
	PG	1:5						
НМСТ	Dip	1:6	01	10	All	Desired	01	
	UG	1:6						
Management	PG	1:2	01	10	All	Desired	02	10%
MCA	PG	1:2	03	20	All	Desired	02	10%

5.1	a	Utilization of Open Source Software may be encouraged
	b	Secured Wi Fi facility is highly recommended
	С	Purchase of most recent hardware is desired.
	d	Library, Administrative offices and Faculty members shall be provided with exclusive computing facilities along with LAN and Internet. This shall be considered as over and above the requirement meant for PCs to students ratio.
	e	<sup>®</sup> Adequate number of software licenses is required
	f	*Central Xeroxing facility for students is preferred

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# 5.2 Laboratory Equipments and Experiments

The laboratories shall have equipments as appropriate for experiments as stated / suitable for the requirements of the affiliating University / Board's curriculum. It is desired that number of experiment set up be so arranged that maximum four students shall work on one set.

#### 5.3 Books, Journals and Library facilities

Program	Total number of Divisions	Titles	Volumes	National Journals	International Journals	E Journals	Reading Room seating	Multimedia PCs for Digital Library/internet Surfing located in reading room
	I to a second		Number				% of total students	% of total students
Engineering / Technology(UG)	В	100 50 per course	500xB 250 per course - division	6xB			20)	
Pharmacy(UG)	В	100 50	500xB 500xB	6xB			Max 1	A STATE OF S
Architecture & Town Planning (UG)	В	100 50	400xB 400xB	6xB	<del>a</del>	As per Appendix 10	15 % (Max 150)	10)
Applied Arts & Crafts(UG)	В	100 50	500xB 500xB	6xB	Desirable	Appe	_	1 % (Max 10)
НМСТ	В	100 50	500xB 500xB	6xB		As per		1%
MBA / PGDM / MCA (PG)	В	100 50	500xB 500xB	12xB		24411		
Engineering / Technology/ Pharmacy / Architecture & Town Planning / Applied Arts & Crafts (PG)	В	50 As Required	200	5xB		135	25 % (Max 100)	
Diploma in Engineering / Tech / Pharmacy / Architecture & Town Planning Applied Arts & Crafts, HMCT	В	required for UG course in the same	number as required for UG course in the same	number as required for UG course in the same		-	15 % (Max 25	1 % (Max 10)

B=Number of divisions at 1<sup>st</sup> year (shift 1+2) + Number of 2<sup>nd</sup> year direct divisions (shift 1+2)

1	Book titles and volumes required at the time of starting new Institution.						
2	Requirements of Book titles and volumes in Institutions started before 1950 shall be calculated considering starting year as 1950.						
3	Yearly increment.						
4	Component for additional division / course.						



5	Hard Copy International Journals is desirable to procure. However subscription to E-Journals and National Journals as per Appendix 10 is essential.
6	Journals and Books may also include subjects of Science & Humanities.
7	Digital Library facility with multimedia facility is essential.
8	Reprographic facility in the library is essential.
9	Document scanning facility in the library is essential.
10	Document printing facility in the library is essential.
11	Library books/non books classification as per standard classification methods is essential.
12	Availability of NPTEL facility at the library is essential.
13	Computerized indexing with bar coded / RF tagged book handling is desired.

Norms for Essential and Desired requirements for Technical Institution (Marked as essential need to be made available at the time of the Expert committee visit)

1.	Stand Alone Language Laboratory	Essential
	The Language Laboratory is used for language tutorials. These are attended by students who voluntarily opt for Remedial English classes. Lessons and exercises are recorded on a weekly basis so that the students are exposed to a variety of listening and speaking drills. This especially benefits students who are deficient in English and also aims at confidence-building for interviews and competitive examinations. The Language Laboratory sessions also include word games, quizzes, extemporary speaking, debates, skits etc. This Lab shall have 25 Computers for every 1000 students.	
2.	Potable Water supply and outlets for drinking water at strategic locations	Essential
3.	Electric Supply	Essential
4.	Backup Electric Supply	Desirable
5.	Sewage Disposal	Essential
6.	Telephone and FAX	Essential
7.	Vehicle Parking	Essential
8.	Institution web site with Mandatory Disclosure	Essential
9.	Barrier Free Built Environment for disabled and elderly persons including availability of specially designed toilets for ladies and gents separately. Refer guidelines and space standards for Barrier Free Built Environment for disabled and elderly persons by CPWD, Ministry of Urban Affairs & Employment, India.	Essential
10.	Safety provisions including fire and other calamities	Essential
11.	General Insurance provided for assets against fire, burglary and other calamities	Essential
12.	Road suitable for use by Motor vehicle- Motorised Road	Essential
13.	General Notice Board and Departmental Notice Boards	Essential
14.	First aid, Medical and Counseling Facilities	Essential
15.	Public announcement system at strategic locations for general announcements/paging and announcements in emergency.	Desirable
16.	Enterprise Resource Planning (ERP) Software for Student-Institution-Parent interaction	Desirable
17.	Transport	Desirable



18.	Post, Banking Facility / ATM	Desirable
19.	CCTV Security System	Desirable
20.	LCD (or similar) projectors in classrooms	Desirable
21.	Group Insurance to be provided for the employees	Desirable
22.	Insurance for students	Desirable
23.	Staff Quarters	Desirable
24.	Establishment of Grievance Redressal Committee and Appointment of OMBUDSMAN in the Institute	Essential
25.	Display of Courses and approved Intake in the Institute at the entrance of the Institute.	Desirable

# Norms for Faculty requirements and Cadre Ratio for Technical Institution

#### 73 Faculty Requirements and Cadre Ratio (PG)

	Faculty: Student ratio	Principal / Director	Professor	Associate Professor	Assistant Professor	Total
		A	В	C	D	A+B+C+D
*Engineering / Technology	1:12	-	S 12xR	S 12xR	S 12xR	<u>S</u>
*Pharmacy	1:12	-	S 12xR	S 12xR	S 12xR	S 12
*Architecture & Town Planning	1:10	-	S 10xR	S 10xR	S 10xR	S 10
*Applied Arts & Crafts	1:10	-	S 10xR	S 10xR	S 10xR	S 10
*HMCT	1:12	-	S 12xR	S 12xR	S 12xR	S 12
"MBA / PGDM	1:15	1	S 15xR -1	S 15xR × 2	$\frac{S}{15xR} \times 6$	S 15
#MCA	1:15	1	S 15xR -1	$\frac{S}{15xR} \times 2$	$\frac{S}{15xR} \times 6$	S 15

7.3 a  $S = Sum \text{ of number of students as per Approved Student Strength at all years *R = (1+2), *R = (1+2+6)$ 

# 8.0 Appendix 8: Faculty Cadre and Qualifications

8.1 Faculty Cadre and Qualifications shall be as per the All India Council for Technical Education (Pay Scales, Service Conditions and Qualifications for the Teachers and other Academic Staff In Technical Institutions (Degree) Regulations, 2010, All India Council for Technical Education (Pay Scales, Service Conditions and Qualifications for the Teachers and other Academic Staff In Technical Institutions (Diploma) Regulations, 2010 and subsequent amendments in these Regulations issued by AICTE from time to time.

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