

**NATIONAL VOCATIONAL EDUCATION QUALIFICATION
FRAMEWORK [NVEQF]**

**GENERAL SCHEMA
(TELECOMMUNICATION)**

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

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Introduction

All [India](#) Council for Technical Education, (AICTE), the apex body for making and maintaining the norms of Technical Education in the country has framed a National [Vocational](#) Education Qualification Framework (NVEQF) for the polytechnics and Engineering Colleges.

NVEQF is introduced by Government in order to formally integrate vocational education together with its current conventional educational streams across school and higher education space and provide an opportunity and incentive to students to explore a large universe of opportunity.

It is important that a Vocational Educational Qualification Framework is in place that allow cross mobility of standards and their absorption in Industry with certain skill gained over a fixed period of time or their seamless integration into higher learning that enable them to acquire formal degree and higher skill so that they perform higher level jobs in Industry.

Rational of NVEQF

- **Across sectors and across the country.** The Initiative addresses skills in all sectors and areas.
- **Short duration, focused and modular programs** allow for quick and effective delivery of skills training. This allows a person to become productive relatively quickly at younger age. The modular approach also means that he can add on to his portfolio of skills for vertical and horizontal progression. At the same time the content is focused to allow for dissemination of only relevant skill. The duration is decided taking into account the objectives and content of the constituent programs. Amongst other things it would be based on Employer-Employee needs, availability of Infrastructure and Equipment, Characteristics of the Training Content, etc
- Programmes of varied durations ranging from **short courses** to more protracted ones, depending on the skill and the requirements at particular certificate level.
- The practical hands on skills for **delivery in the local language**, thereby allowing for provision of local trainers, congenial and effective delivery.
- The delivery of the program is flexible it could be **full day, half day or week end programs**. This would again be decided on availability of candidate's spare time, availability of training infrastructure and spare capacities, etc.

- Training could be delivered through a **network of centres** that could include Technical and Non-Technical Schools and Colleges industry centres, Training Organizations, Services, In addition, for practical training, laboratories of industries could be used as Training Sites for skill enhancement, where required.

		Case I		Case II	
Certification Level	Normal Qualification	Vocational Qualification	Certifying Body	Vocational Qualification	Certifying Body
7	3 rd yr bachelors	Advanced Diploma	Board of Technical Education	Degree	University
6	2 nd yr bachelors				
5	1 st yr bachelors	Diploma	Board of Technical Education	Grade XII	School Board
4	Higher Secondary School Grade XII				
3	Higher Secondary School Grade IX				
2	Secondary School Grade X	Grade X	School Board	Grade X	School Board
1	Secondary School Grade IX	Grade IX	School Board	Grade IX	School Board

Framework options for a student

GENERAL SCHEME OF STUDIES

There shall be Seven Certificate level; each level will have following distribution for General and Vocational education -

Certificate Level	Contact Hours for Vocational & General Education	
	Vocational	Academic
1	200-300	700-800
2	200-300	700-800
3	300-400	600-700
4	300-400	600-700
5	400-500	500-600
6	500-600	400-500
7	600-700	300-400

- Internal distribution of teaching hours for each subjects to be done by concerned board/university as per the need
- For any clarification at level I to IV of General Content, Syllabus of C.B.S.E. may be referred
- The given contents are indicative one and concerned Boards/ University may make desirable changes as per the local needs

- The evaluation of Vocational part shall be done by respective SKPs and shall award grades on five point scale.
- The concerned institutes shall forward the grade to Board/University for the purpose of issuing Level Certificate.

SKILL SECTORS/ SPECIALISATIONS AND GENERAL CONTENT

Sector	Specialization	General Content
Communications		Science Stream
1	Mobile Communication	

NATIONAL VOCATIONAL EDUCATIONAL QUALIFICATION FRAMEWORK (NVEQF)
SECTOR: TELECOMMUNICATIONS

SPECIALIZATION: MOBILE COMMUNICATION: NVEQF/TELE/MC/LI

CERTIFICATE LEVEL- I

S.N O	VOCATIONAL CONTENT (DETAIL CONTENT AT L_All_Vocational_Education s)	HRS .	S.N O	GENERAL CONTENT	HRS .
1.	BASICS OF ELECTRICITY COMPONENTS	80		SUBJECT OF STUDIES THE LANGUAGES WILL BE FROM THE FOLLOWING WITH THE FOLLOWING STRUCTURE (ANY TWO) HINDI, ENGLISH, ASSAMESE, BENGALI, GUJRATI, KANNADA, KASHMIRI, MARATHI, MALAYALAM, MANIPURI, ORIYA, PUNJABI, SINDHI, TAMIL, TELUGU, URDU, LEPCHA, LIMBU, BHUTIA, SANSKRIT, ARABIC, PERSIAN, FRENCH, GERMAN, PORTUGUESE, RUSSIAN, SPANISH, NEPALI, TIBETAN AND MIZO, TANGKHUL AND BODO. (DETAIL CONTENT AT L_1_Language)	
			1.	LANGUAGE I	140
			2.	LANGUAGE II	140
2.	BASIC MOBILE REPAIRING TECHNIQUES	120	3.	MATHEMATICS (DETAIL CONTENT AT L_1_General_Ed)	140
3.			4.	SCIENCE (DETAIL CONTENT AT L_1_General_Ed)	180
4.			5.	SOCIAL SCIENCE (DETAIL CONTENT AT L_1_General_Ed)	180
	TOTAL VOC CONTENT	200		TOTAL GENERAL CONTENT	780
	GRAND TOTAL			980 HRS.	

SPECIALIZATION: MOBILE COMMUNICATION: NVEQF/TELE/MC/LII

CERTIFICATE LEVEL- II

S.N O	VOCATIONAL CONTENT (DETAIL CONTENT AT L_All_Vocational_Ed_communication s)	HRS .	S.N O	GENERAL CONTENT	HRS .
1.	MOBILE REPAIRING	125		SUBJECT OF STUDIES THE LANGUAGES WILL BE FROM THE FOLLOWING WITH THE FOLLOWING STRUCTURE (ANY TWO) HINDI, ENGLISH, ASSAMESE, BENGALI, GUJRATI, KANNADA, KASHMIRI, MARATHI, MALAYALAM, MANIPURI, ORIYA, PUNJABI, SINDHI, TAMIL, TELUGU, URDU, LEPCHA, LIMBU, BHUTIA, SANSKRIT, ARABIC, PERSIAN, FRENCH, GERMAN, PORTUGUESE, RUSSIAN, SPANISH, NEPALI, TIBETAN AND MIZO, TANGKHUL AND BODO. (DETAIL CONTENT AT L_2_Language)	
			1.	LANGUAGE I	140
			2.	LANGUAGE II	140
2.	MOBILE TROUBLE SHOOTING	125	3.	MATHEMATICS (DETAIL CONTENT AT L_2_General_Ed)	140
3.			4.	SCIENCE (DETAIL CONTENT AT L_2_General_Ed)	180
4.			5.	SOCIAL SCIENCE (DETAIL CONTENT AT L_2_General_Ed)	180
	TOTAL VOC CONTENT	250		TOTAL GENERAL CONTENT	780
	GRAND TOTAL			1030 HRS.	

SPECIALIZATION: MOBILE COMMUNICATION: NVEQF/TELE/MC/LIIE

CERTIFICATE LEVEL- III

S.N O	VOCATIONAL CONTENT (DETAIL CONTENT AT L All Vocational Ed communications)	HRS .	S.N O	GENERAL CONTENT	HRS .
1.	SMART PHONE REPAIR	200	1. 2.	SUBJECT OF STUDIES I&II TWO LANGUAGES OUT OF FOLLOWING HINDI, ENGLISH, ASSAMESE, BENGALI, GUJRATI, KASHMIRI, KANNADA, MARATHI, MALYALAM, MANIPURI, ORIYA, PUNJABI, SINDHI, TAMIL, TELUGU, URDU, SANSKRIT, ARABIC, PERSIAN, LIMBOO, LEPCHA, BHUTIA, MIZO, TANGKHUL, BODO, NEPALI, TIBETAN, FRENCH, GERMAN, PORTUGUESE, RUSSIAN AND SPANISH. (DETAIL CONTENT AT L_3_Language) LANGUAGE I LANGUAGE II	120 120
2.	TABLET PC REPAIR	150		ANY THREE PAPERS OUT OF FOLLOWING (DETAIL CONTENT AT L_3_General_Ed_Science_Stream)	
				MATHEMATICS	150
				PHYSICS	150
				CHEMISTRY	150
				BIOLOGY	150
				BIOTECHNOLOGY	150
				ENGINEERING GRAPHICS	150
				AGRICULTURE	150
				COMPUTER SCIENCE	150
				INFORMATICS PRACTICES	150

			MULITMEDIA AND WEB TECHNOLOGY	150
	TOTAL VOC CONTENT	350	TOTAL GENERAL CONTENT	690
	GRAND TOTAL		1040 HRS.	

SPECIALIZATION: MOBILE COMMUNICATION: NVEQF/TELE/MC/LIV

CERTIFICATE LEVEL- IV

S.N O	VOCATIONAL CONTENT (DETAIL CONTENT AT L_All_Vocational_Ed_communication s)	HRS .	S.N O	GENERAL CONTENT	HRS .
1.	OPTICAL FIBER COMMUNICATION	50	1. 2.	SUBJECT OF STUDIES I&II TWO LANGUAGES OUT OF FOLLOWING HINDI, ENGLISH, ASSAMESE, BENGALI, GUJRATI, KASHMIRI, KANNADA, MARATHI, MALYALAM, MANIPURI, ORIYA, PUNJABI, SINDHI, TAMIL, TELUGU, URDU, SANSKRIT, ARABIC, PERSIAN, LIMBOO, LEPCHA, BHUTIA, MIZO, TANGKHUL, BODO, NEPALI, TIBETAN, FRENCH, GERMAN, PORTUGUESE, RUSSIAN AND SPANISH. (DETAIL CONTENT AT L_4_Language) LANGUAGE I LANGUAGE II	120 120
2.	TELEPHONE EXCHANGE- SWITCHING THEORY	150		ANY THREE PAPERS OUT OF FOLLOWING (DETAIL CONTENT AT L_4_General_Ed_Science_Stream)	
3.	DSL	150		MATHEMATICS	150
				PHYSICS	150
				CHEMISTRY	150
				BIOLOGY	150
				BIOTECHNOLOGY	150
				ENGINEERING GRAPHICS	150
				AGRICULTURE	150
				COMPUTER SCIENCE	150

				INFORMATICS PRACTICES	150
				MULITMEDIA AND WEB TECHNOLOGY	150
	TOTAL VOC CONTENT	350		TOTAL GENERAL CONTENT	690
	GRAND TOTAL			1040 HRS.	

SPECIALIZATION: MOBILE COMMUNICATION: NVEQF/TELE/MC/LV

CERTIFICATE LEVEL- V

S.N O	VOCATIONAL CONTENT (DETAIL CONTENT AT L_All_Vocational_Ed_communication s)	HRS .	S.N O	GENERAL CONTENT	HRS .
1.	TELECOM BASICS & EARTHING SYSTEM	125		ANY THREE PAPERS OUT OF FOLLOWING (DETAIL CONTENT AT L_5_General_Ed_Science_Stream)	
2.	TELECOM POWER SUPPLY	200		MATHEMATICS	180
3.	TELECOM FUNDAMENTALS- ACTIVE & PASSIVE INFRASTRUCTURE	175		PHYSICS	180
				CHEMISTRY	180
				COMPUTER SCIENCE	180
				APPLIED STATISTICS	180
				BOTANY	180
				ZOOLOGY	180
				BIOCHEMISTRY	180
				MICROBIOLOGY	180
				ELECTRONICS	180
	TOTAL VOC CONTENT	500		TOTAL GENERAL CONTENT	540
	GRAND TOTAL			1040 HRS.	

SPECIALIZATION: MOBILE COMMUNICATION: NVEQF/TELE/MC/LVI

CERTIFICATE LEVEL- VI

S.N O	VOCATIONAL CONTENT (DETAIL CONTENT AT L_All_Vocational_Ed_communication s)	HRS	S.N O	GENERAL CONTENT	HRS
1.	ANTENNA THEORY & INSTALLATION	100		ANY TWO PAPERS OUT OF FOLLOWING (DETAIL CONTENT AT L_6_General_Ed_Science_Stream)	
2.	MODULATION & MULTIPLE ACCESS TECHNIQUE	100		MATHEMATICS	250
3.	DATA COMMUNICATION	100		PHYSICS	250
4.	WIRELESS COMMUNICATION-2G	150		CHEMISTRY	250
5.	INSTALLATION & COMMISSIONING	100		COMPUTER SCIENCE	250
				APPLIED STATISTICS	250
				BOTANY	250
				ZOOLOGY	250
				BIOCHEMISTRY	250
				MICROBIOLOGY	250
				ELECTRONICS	250
	TOTAL VOC CONTENT	550		TOTAL GENERAL CONTENT	500
	GRAND TOTAL			1050 HRS.	

SPECIALIZATION: MOBILE COMMUNICATION: NVEQF/TELE/MC/LVII

CERTIFICATE LEVEL- VII

S.N O	VOCATIONAL CONTENT (DETAIL CONTENT AT L_All_Vocational_Ed_communication s)	HRS ·	S.N O	GENERAL CONTENT	HRS ·
1.	WIRELESS COMMUNICATION-3G/4G	150		ANY ONE PAPER OUT OF FOLLOWING (DETAIL CONTENT AT L_7_General_Ed_Science_Stream)	
2.	INSTALLATION & COMMISSIONING(NODE B & ENODEB)	200		MATHEMATICS	300
3.	OPERATION & MAINTENANCE	100		PHYSICS	300
4.	ON SITE TRAINING	200		CHEMISTRY	300
5.	DRIVE TEST 2G/3G	100		COMPUTER SCIENCE	300
				APPLIED STATISTICS	300
				BOTANY	300
				ZOOLOGY	300
				BIOCHEMISTRY	300
				MICROBIOLOGY	300
				ELECTRONICS	300
	TOTAL VOC CONTENT	750		TOTAL GENERAL CONTENT	300
	GRAND TOTAL			1050 HRS.	