

## NAGINDAS KHANDWALA COLLEGE OF COMMERCE, ARTS & MANAGEMENT STUDIES

**Programme:** Bachelor of Science (Geoinformatics)

**Academic year:** 2025-26

### Curriculum Framework of First Year under NEP

Level	Sem.	Major		Minor	OE	VSC, SEC (VSEC)	AEC, VEC, IKS	OJT, FP, CEP, CC, RP	Credits	Cumulative Credits
		Mandatory (DSC 1 & DSC 2)	Electives							
4.5	I	Fundamentals of Geoinformatics (03) Introduction to Programming (03)	----	----	FC-I (02)  Data Analysis using Spreadsheet (02)	<b>VSC:</b> Monitoring Pollution through GIS (02)  <b>SEC:</b> Descriptive Statistics-I (02)	<b>AEC:</b> Communication Skills-I (02) <b>VEC:</b> Environmental Studies I (02) <b>IKS:</b> (02)	<b>CC:</b> NSS, NCC, Sports, Cultural, Yoga, Music, Performing Arts, DLLE (02)	3+3+2+2+2+2+2+2+2= <b>22</b>	44 (UG Certificate)
	II	Introduction to Remote Sensing and GIS (03) Database Management System (03)	----	Fundamentals of Geography (02)	FC-II (02)  Word and Presentation Tools (02)	<b>VSC:</b> Introduction to QGIS (02)  <b>SEC</b> Descriptive Statistics-II (02)	<b>AEC:</b> Communication Skills-II (02) <b>VEC:</b> Environmental Studies-II (02)	<b>CC:</b> NSS, NCC, Sports, Cultural, Yoga, Music, Performing Arts, DLLE (02)	3+3+2+2+2+2+2+2+2= <b>22</b>	
	<b>Cum Cr.</b>	<b>12</b>	<b>----</b>	<b>2</b>	<b>8</b>	<b>8</b>	<b>10</b>	<b>4</b>	<b>44</b>	

**\* Exit Option:** Award of UG Certificate in Major with 40-44 credits and an additional 4 credits core NSQF Course/Internship or Continue with Major and Minor

**Programme:** Bachelor of Science (Geoinformatics)

**Academic year:** 2025-26

**Curriculum Framework of Second Year under NEP**

Level	Sem.	Major		Minor	OE	VSC, SEC (VSEC)	AEC, VEC, IKS	OJT, FP, CEP, CC, RP	Cr	Cumulative Credits
		Mandatory (DSC 1 & DSC 2)	Electives							
5.0	III	Principles of Cartography (03) Geo Analytics (03) Research Methodology-I (02)	----	Introduction to Geospatial Data Analysis (02)  QGIS-II (02)	FC-III (02)	<b>VSC:</b> Surveying through GPS (02)	<b>AEC:</b> Hindi/ Marathi/ Gujarati (02)	<b>FP (02)</b>  <b>CC:</b> NSS, NCC, Sports, Cultural, Yoga, Music, Performing Arts, DLLE (02)	<b>22</b>	88 (UG Diploma)
	<b>Credits</b>	<b>8</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>4</b>		
	IV	Digital Image Processing (03) Geo Spatial Data Science With Python (03) Research Methodology-II (02)	----	Practical in Geo Spatial Data Science With Python (02)  QGIS-III (02)	FC-IV (02)	<b>SEC:</b> Travel and Tourism (02)	<b>AEC:</b> Hindi/ Marathi/ Gujarati (02)	<b>FP (02)</b>  <b>CC:</b> NSS, NCC, Sports, Cultural, Yoga, Music, Performing Arts, DLLE (02)	<b>22</b>	
	<b>Credits</b>	<b>8</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>4</b>		
	<b>Total credits in 2<sup>nd</sup> year</b>	<b>16</b>	<b>0</b>	<b>8</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>8</b>	<b>44</b>	
	<b>Cum Cr.</b>	<b>28</b>	<b>----</b>	<b>10</b>	<b>12</b>	<b>12</b>	<b>14</b>	<b>12</b>	<b>88</b>	

**\* Exit Option: Award of UG Diploma in Major and Minor with 80-88 credits and an additional 4 credits core NSQF Course/Internship or Continue with Major and Minor**

# NAGINDAS KHANDWALA COLLEGE OF COMMERCE, ARTS & MANAGEMENT STUDIES

**Programme:** Bachelor of Science (Geoinformatics)

**Academic year:** 2025-26

## Curriculum Framework of Third Year under NEP

Level	Sem.	Major		Minor	OE	VSC, SEC (VSEC)	AEC, VEC, IKS	OJT, FP, CEP, CC, RP	Credits	Cumulative Credits
		Mandatory (DSC 1, 2 & DSC 3)	Electives							
5.5	V	Thermal and Microwave Remote Sensing (04) Introduction to Geomorphology (04) Internet of Things Laboratory (02)	Principles of Internet of Things (04)	Introduction to ArcGIS and AutoCAD (02)  Drone Technology and Advanced Surveying (02)	----	VSC (02) 1. Introduction to Survey of India Sheets 2. Advanced Geospatial Processing using 21 <sup>st</sup> Century GIS 3. Introduction to Stock Markets	----	FP/CEP/ Holistic Skill Development for Career Readiness (02)	22	132 (UG Degree)
	Credits	10	4	4	0	2	0	2		
	VI	Hyperspectral and LASER Remote Sensing (04) Introduction to Climatology and Oceanography (04) Web GIS and Mobile GIS (02)	AI and Machine Learning for Geospatial Systems (04)	Introduction to R (02)  Applications of ArcGIS and AutoCAD (02)	----	----	----	OJT/ Internship/ Project Work (04)	22	
	Credits	10	4	4	0	0	0	4		
	Total credits in 3 <sup>rd</sup> year	20	8	8	0	2	0	6	44	
	Cum Cr.	48	8	18	12	14	14	18	132	

\* Exit Option: Award of UG Degree in Major with 120-132 credits or Continue with Major and Minor