

CONTINUING EDUCATION CELL NATIONAL INSTITUTE OF TECHNOLOGY RAIPUR G.E. Road, Raipur – 492010 (C.G.) Ph- (0771)2253934

Continuing Education Cell, NIT Raipur is offering the following certificate courses on GIS and AutoCAD. The proposed schedule for these courses is as follows:

**Notice for Certificate Courses** 

S.No.	Course Name	Proposed schedule	Note
1	GIS	06.03.2021 to 12.03.2021	1. The course fees for the training program will be Rs. 10,000 + GST (18 %) per participant.
2	AutoCAD	15.03.2021 to 21.03.2021	<ol> <li>If an organization wishes to pursue the course for it's employees then the course fees will be Rs.</li> <li>00 Lakhs + GST (18%) for 20 participants. The course fees will remain same even if the number of participants are less than 20. If the number of participants are more than 20, the course fees will be Rs. 10,000 + GST (18%) for each additional participant.</li> </ol>

Interested candidates and sponsoring agency can apply in the prescribed application form along with the course fee to the office of the undersigned. The course content is attached herewith. For any clarification the undersigned may kindly be contacted at sghosh.ele@nitrr.ac.in.

Dr. Subhojit Ghosh Chairman, CEC NIT, Raipur



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#### AutoCAD Course Content

S.No.	Title of the Topic	Description
1	Getting Started with AutoCAD	<ul> <li>Starting AutoCAD</li> <li>AutoCAD's User Interface</li> <li>Working with Commands</li> <li>AutoCAD's Cartesian Workspace</li> <li>Opening an Existing Drawing File</li> <li>Viewing Your Work</li> <li>Saving Your Work</li> </ul>
2	Basic Drawing & Editing Commands	<ul> <li>Drawing Lines</li> <li>Erasing Objects</li> <li>Drawing Lines with Polar Tracking</li> <li>Drawing Rectangles</li> <li>Drawing Circles</li> <li>Undo and Redo Actions</li> </ul>
3	Drawing Precision in AutoCAD	<ul> <li>Using Running Object Snaps</li> <li>Using Object Snap Override</li> <li>Polar Tracking at Angles</li> <li>Object Snap Tracking</li> </ul>
4	Making Changes in Your Drawing	<ul> <li>Selecting Objects for Editing</li> <li>Moving Objects</li> <li>Copying Objects</li> <li>Rotating Objects</li> <li>Scaling Objects</li> <li>Mirroring Objects</li> <li>Editing with Grips</li> </ul>
5	Advanced Object Types	<ul> <li>Drawing Arcs</li> <li>Drawing Polylines</li> <li>Editing Polylines</li> <li>Drawing Polygons</li> <li>Drawing Ellipses</li> </ul>
6	Advanced Editing Commands	<ul> <li>Trimming and Extending Objects</li> <li>Stretching Objects</li> <li>Creating Fillets and Chamfers</li> <li>Offsetting Objects</li> <li>Creating Arrays of Objects</li> </ul>
7	Working with Blocks	Creating Blocks     Editing Blocks
8	2D Isometric drawing	<ul> <li>Setting out the Snap &amp; Grid</li> <li>How to create 2D Isometric drawing</li> </ul>
9	Hatching	Hatching     Editing Hatches
10	Text	<ul> <li>Working with Annotations</li> <li>Adding Text in a Drawing</li> <li>Modifying Multiline Text</li> <li>Formatting Multiline Text</li> <li>Adding noted with Leaders to your Drawing</li> <li>Creating Tables</li> <li>Modifying Tables</li> </ul>



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		Dimensioning Concepts
11	Adding Dimensions	Adding Linear Dimensions
		<ul> <li>Adding Radial and Angular Dimensions</li> </ul>
		Editing Dimensions
		What are Layers?
12	Organizing Your Drawing with Layers	Layer States
		Changing an Object's Layer
		Introduction
		<ul> <li>Introduction to the 3D Modeling Workspace</li> </ul>
13	3D Eurodamontals	Basic 3D Viewing Tools
15		Preset 3D Views
		Orbiting in 3D
		<ul> <li>Using Visual Styles</li> </ul>
		Creating Boxes and Wedges
		Creating Pyramids
		Creating Cylinders and Cones
1/	Simple Solids	Creating Spheres and Torus
14		Creating wall- like Solids with Polysolid
		Creating Mesh Primitives
		Creating Mesh Models from Objects
		Creating Mesh Models
		Editing Components of Solids
		Editing Faces
		Editing Edges
		Editing Vertices
		Modification Options
		Editing Faces of Solids
15	Advanced Solid Editing	Extruding Faces
10		Offsetting Faces and Edges
		Moving Faces
		Iapering Faces
		Removing Faces
		<ul> <li>Copying Faces</li> </ul>
		Creating a Shell
		Imprinting Edges of Solids
		Slicing a Solid along a Plane
		Interference Checking
		Converting Object to Surfaces
10	Additional Editing Tack	<ul> <li>Creating Planar Surfaces from 2D Objects</li> </ul>
10	Auditional Editing 1001s	<ul> <li>Converting 2D Objects to Surfaces</li> </ul>
		Converting Solids to Surfaces
		Converting Objects to Solids
		Converting 2D Objects to Solids
		Converting Surfaces to Solids
		<ul> <li>Converting Solids or Surfaces to Wireframe</li> </ul>
		Creating Surfaces and Solids
	Creating Solids & Surfaces from 2D	Extruded Solids and Surfaces
17	Objects	Swent Solids and Surfaces
		Modifying Sweeps



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		3D Paths
		Revolved Solids and Surfaces
		Modifying Revolves
		<ul> <li>Lofted Solids and Surfaces</li> </ul>
		Modifying Lofts
		Aligning Objects in 3D Space
		Align Command
		3D Align Command
40		3D Modify Commands
18	Modifying in 3D Space	3D Move and 3D Rotate
		• 3D Scale
		<ul> <li>Mirroring Objects in 3D</li> </ul>
		Arraving Objects in 3D
		Working with Sections
		Working with Generas
	Refining the View	Managing Views in 3D
19		Animating with Show Motion
		Creating Show Motion Shots
		Creating Animations
		UCS Basics
		UCS Icon
20	Warking with the User Coordinate System	Moving the UCS Origin
20	working with the User Coordinate System	Moving the UCS to a Face
		Moving the UCS Using 3 Points
		The UCS X, Y and Z-Commands
		UCS Multifunctional Grips
		Creating Visual Styles
21	Visualization	Working with Materials
		Specifying Light Sources
		Rendering Concepts

Dr. Ishtiyaq Ahmad Course Coordinator (AutoCAD) Continuing Education Cell, NIT Raipur E-mail: iahmad.ce@nitrr.ac.in Mob.: +91 80858 27071



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#### **GIS Course Content**

S.No.	Title of the Topic	Description
1	Getting to know GIS	<ul> <li>Introduction to GIS</li> <li>Introduction to ArcGIS</li> <li>Introduction n to ArcCatalog</li> <li>Introduction to ArcMap</li> <li>Managing and saving files</li> </ul>
2	Getting started with maps and data	<ul> <li>Displaying map data</li> <li>Navigating a map</li> <li>Looking at feature attribute</li> <li>Browsing map data</li> <li>Searching for map data</li> </ul>
3	Spatial Data	Working with projections     Geo-rectifying images
4	Creating new geographic files and digitizing	<ul> <li>Creating shape file: point, line and polygon</li> <li>Setting projection t a shape file</li> <li>Adding and editing shape file in workspace</li> <li>Digitization</li> <li>Measurement of digitized geometry</li> <li>Add, modify, splitting and merging features</li> <li>Transforming shape files (Dissolve, clip, intersect, union etc.)</li> </ul>
5	Modifying attributes	<ul> <li>Working with tables</li> <li>Calculating values</li> <li>Calculating area, perimeter &amp; length</li> <li>Creating XY coordinates</li> <li>Joining tables</li> <li>Adding hyperlinks</li> </ul>
6	Getting information about features	<ul> <li>Identifying, selecting, finding and hyper linking features</li> <li>Selecting features by attributes</li> <li>Working with tables</li> </ul>
7	Working with 3D Analyst	<ul> <li>3D model of vector data</li> <li>3D model of raster data</li> <li>Animating 3D scenes</li> </ul>
8	Working with model builder	Creating a model for specific task using model builder
9	Making maps for presentations	<ul> <li>Symbolizing point data</li> <li>Symbolizing area data</li> <li>Labeling features</li> <li>Designing map layouts</li> <li>Making layouts</li> <li>Exporting maps</li> </ul>
10	Accessing data	Accessing spatial data through various web portals
11	Applications	<ul> <li>Application of GIS in urban and rural development and management</li> <li>Application of GIS in natural resources management</li> </ul>

Dr. Ishtiyaq Ahmad Course Coordinator (GIS) Continuing Education Cell, NIT Raipur E-mail: iahmad.ce@nitrr.ac.in Mob.: +91 80858 27071



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APPLICATION FORM Name of the Course Applied:	
Name: Father's/Husband's Name:	Passe a Passport Size Color Photograph Here
Date of Birth: Sex: Male Female	
Qualification:	
Phone (with STD code): Residence:Mobile:	
Course applied for:	
Fee Details:	
Amount: DD No.: Date:	
Name of Bank	
(Please write your name and course applied for in the back of th	he Demand Draft also.)
Data	Signature of the Applicant
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<ol> <li>The Fee Deposited for any course is non-refundable &amp; r</li> <li>Information regarding the classes will be sent to throug</li> <li>If Applicant is in Government service, they need to applied to applie</li></ol>	non-transferable. gh mail after registration. ly through proper channel.
For Office Use Only	
Course:	
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