

INTERNSHIP PROGRAMME FOR UG DEGREE (SEMESTER-V)

(For the students admitted under New Curriculum and Credit Framework from the academic session 2023-24)



Course Title: Amin Survey	
Internship Providing Organization (IPO):	Department of Geography, Bankura Sammilani College
Category of Course:	For UG DEGREE (SEM-V)
Duration:	60 Hours
Course Co-ordinator and Contact Details:	Dr. Ulfat Khan Mob:9434627170
Mentor:	Dr. Muktadar Hossain
Intake Capacity:	50 Students
Course Fees:	Rs. 100/- (Students from Host Institution) Rs.400/-(Students from Other Institution)

SYLLABUS

Course Title: Amin Survey
[50 Marks/ 2 Credits/ 60 Hours]

Learning Outcomes(LO)

- Understand the basic principles and concepts of land surveying and cadastral surveying.
- Identify, handle, and use surveying instruments such as Chain, Tape, Compass, Plane Table, Dumpy Level, Theodolite, GPS.
- Conduct chain, tape, compass, plane table, traverse, and levelling surveys accurately in the field.
- Perform land measurement, plot demarcation, and boundary verification according to government land survey procedures.
- Apply revenue survey techniques for land classification, mutation work, and Record of Rights (ROR) verification.
- Ensuring that our Amin Survey training remains up to date with practical based quality of the participants
- Supporting students in their professional development by providing them with resources guidance and opportunity as surveyor.

Unit-1: Fundamental of Surveying

[15 hours]

- 1.1 Introduction to Surveying: Concept, Principles and classification, surveying errors
- 1.2 Unit of Land Measurement: Linear, Angular; Decimal, Accor, Bigha
- 1.3 Amin: Duties and Responsibilities
- 1.4 Surveying Instruments: Prismatic Compass, Dumpy Level, GPS, Total Station

Unit-2: Chain and Tape Survey

[15 hours]

- 2.1 Chain Survey: Principles, Types and Error
- 2.2 Field Book preparation: Ranging & Offsetting, Measurement of distances, recording field observations, Plotting field data
- 2.3 Tape Survey: Principles, Types and Applications
- 2.4 Field Visit: Boundary Identification, Area Calculation, Sketch Map Preparation

Unit-3: Traverse Survey

[15 hours]

- 3.1 Concept of Traverse: Open Traverse and Close Traverse; Radiation & Intersection
- 3.2 Plane Table Survey: Field book preparation
- 3.3 Prismatic Compass Survey: Calculation of Bearing, Included Angle, Plotting of field data
- 3.4 GPS Survey: Waypoint collection and plotting in QGIS software

Unit-4: Land Record

[15 hours]

- 4.1 Cadastral Map: Concept, Important and Limitation
- 4.2 Land System: Concept of Plot, Khatian system, Land classification
- 4.3 Map Layout: Symbol and conventional sign, scale & orientation
- 4.4 Mutation: Mutation and Registry process

Suggested Reading

- Punmia, B. C., Jain, A. K., & Jain, A. K. (2016). *Surveying (Vol. II)* (17th rev. ed.). New Delhi: Laxmi Publications.
- Ghilani, C. D., & Wolf, P. R. (2015). *Elementary surveying: An introduction to geomatics* (14th ed.). Boston, MA: Pearson Education.
- Wolf, P. R., & Ghilani, C. D. (2006). *Elementary surveying: An introduction to geomatics* (11th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Anderson, J. M., & Mikhail, E. M. (2001). *Surveying: Theory and practice* (7th ed.). New York, NY: McGraw-Hill.
- Schofield, W., & Breach, M. (2007). *Engineering surveying* (6th ed.). Oxford, UK: Butterworth-Heinemann.
- Kavanagh, B. F., & Bird, S. J. (2014). *Surveying: Principles and applications* (9th ed.). Upper Saddle River, NJ: Pearson.