

**COURSE TITLE: FIRST YEAR (HONORS) FINAL**

Course Number	Course Title	Credit	Marks
101	Introduction to Archaeology	3	100
102	Methods and Techniques in Field Archaeology	3	100
103	Introduction to World Prehistory	2	50
104	History of ancient south Asia with emphasis on socio-economic and cultural Aspect	3	100
105	History of ancient Bengal with emphasis on socio-economic and cultural Aspect	3	100
106	Introduction to Anthropology	3	100
107	Introduction to Earth Science for Archaeology	3	100
108	Introduction to Academic English	2	50
109	Practical: Basic Computing for Archaeology	3	100
110	Practical: Basic Survey Methods and Mapping for Archaeology	3	100
111	Practical: Field Work (Survey/Excavation)	4	100
112	Viva-Voce	2	50
Total Marks		<b>32</b>	<b>1050</b>



<b>Course Title</b>	<b>: Introduction to Archaeology</b>
<b>Course Code</b>	: ARCH 101
<b>Class Hours</b>	: 4 [3 hours per week (course) + 1 hour (tutorial)]
<b>Unit and Marks</b>	: Full Unit Course equivalent to 100 marks.
<b>Marks Distribution</b>	: 100 [Attendance 10 + Tutorials (3) 20 + Exam 70]
<b>Assessment</b>	: Attendance 10%, Tutorials 20%, Exam 70%

### Objectives

The course welcomes students to the exciting field of archaeology. It will introduce students to the study and practice of archaeology as well as explores its diverse sub-field and relationships with allied disciplines and fields. It will explore the early history and background of archaeology, the emergence of modern archaeology as well as different theoretical approaches to archaeology. The course additionally seeks to provide students a solid grounding in understanding how archaeology is a strong methodological tool towards understanding social change, historical events and the diversity of past human behavior. By the end of the course, students should have a solid understanding of the goals, methods, challenge and opportunity of archaeology in Bangladesh.

### Learning outcomes

As a result of introducing with this course, the student should be able to:

- Explain the goals of archaeology and ethical responsibilities that arise from its practice.
- Outline and describe the development of archaeology as a profession discipline.
- Develop a deeper understanding of the different field of archaeological knowledge in relation to the other subfields and discipline.
- Identify the major schools of archaeological thought.
- Identify the major trends in the history of archaeology.
- Identify how archaeologists analyze sites and interpret material objects.
- Recognize some of the contemporary ethical issues facing archaeologists today.

### Contents

#### Unit A: Why study archaeology?

Definition and goals of archaeology.

Misuses of archaeology: pseudoarchaeology

Archaeology as a profession

The responsibilities of archaeology: ethical responsibilities.

#### Unit B: Basic concepts: Archaeological records, Archaeological sites, Site formation processes, Archaeological context, Stratigraphy, Culture.

#### Unit C: Kinds of Archaeology:

Prehistoric archaeology, Proto-historic archaeology, Historical archaeology.

Environmental archaeology, Geoarchaeology, Pedo archaeology, Bio archaeology, Zooarchaeology, Archaeobotany, Archaeogenetics, Ecological archaeology, Landscape archaeology. Ethnoarchaeology, Experimental archaeology.

Feminist archaeology, Gender archaeology, Indigenous archaeology, social archaeology.



Archaeoastronomy, Cognitive archaeology, Archaeology of cult and religion, Darwinian archaeology, Holistic archaeology, Contextual archaeology. Public archaeology, Museology, Conservation/preservation, Heritage/culture resource management, Economic archaeology, Under water archaeology. Salvage and Rescue archaeology, Classical archaeology, Settlement archaeology, Industrial archaeology, Linguistic archaeology, Biblical archaeology, Egyptology, Assyriology. Epigraphy, Palaeography, Numismatics, Archaeo metallurgy, Maritime Archaeology.

**Unit D:** Multidisciplinary nature of archaeology. Archaeology as a science.

Understanding between archaeology and history, understanding between archaeology and anthropology, understanding between archaeology and geology, understanding between archaeology and art history, understanding between archaeology and social science, Understanding between archaeology and natural and physical Sciences.

**Unit E:** History of archaeological thought: The origins of archaeology.

The emergence of modern archaeology.

Different theoretical approaches to archaeology: Culture history, cultural process and post processual approaches.

Archaeology and archaeologist: Howard Carter (1874-1939), Kathleen Kenyon (1906-1978), Mary Leakey (1913-1996), Louis Leakey (1903-1972), Arthur Evans (1851-1941), Flinders Petrie (1853-1942), Heinrich Schliemann (1822-1890), Mortimer Wheeler (1890-1976), Gustaf Kossinna (1858-1931), Vere Gordon Childe (1892-1957), Lieutenant General Augustus Henry Lane Fox Pitt Rivers (1827-1900), Lewis Roberts Binford (1931-2011), Alfred Vincent Kidder (1885-1963), Robert Bruce Foote (1834-1912), Sir Leonard Woolley (1880-1960), Sir Austen Henry Layard (1817-1894), Hasmukh Dhirajlal Sankalia (1908-1989), Rakhal Das Banerji (1885-1930), Daya Ram Sahni (1879-1939).

**Unit F:** Development of archaeological research in South Asia: Earliest attempts, Surveys and descriptions, The beginnings of archaeology, The era of Alexander Cunningham, The period of James Burgess, The dark phase, Lord Curzon and Marshall era, Post Marshall era, The era of Mortimer Wheeler, Post-independence era.

Development of archaeological research in Bangladesh.

### Recommended Readings

- Bahn, P. and Renfrew, C. (2008) *Archaeology: Theory, methods and practice*. New York: Thames and Hudson.
- Chakrabarti, Dilip. K. (1988) *A History of Indian Archaeology from the Beginning to 1947*. Delhi: Munshiram Manoharlal Pvt. Ltd.
- Chakrabarti, Dilip. K. (1992) *Ancient Bangladesh A Study of the Archaeological Sources*. Dhaka: UPL.
- Childe, V.G. (1960) *A Short Introduction to Archeology*. New York: Collier Books.
- Fagan, Brian (2001) *In the Beginning: an Introduction to Archaeological Practice*. New Jersey: Hall Upper Saddle River.
- Gamble, Clive (2004) *Archaeology The Basics*, UK: Routledge.
- Hossain, Mosharraf (1999) *Pranatatva: Udvan O Bikash*. Dhaka: Bangla Academy.
- Imam, Abu (1966) *Alexander Cunningham and the Beginning of Indian Archaeology* Dacca: Asiatic Society of Pakistan.
- Islam, Aminul. A. K.M. (1985) *Ei Prithibir Mansuh*, vols. 1 and 2. Dhaka: Bangla Academy.



- Knudson, S. J. (1986) *Culture in Retrospect: an Introduction to Archaeology*. California: Waveland Press.
- Rajan. K (2002) *Archaeology Principles and Methods*. Thanjavur : Manoo Pathippakam.
- Renfrew, Colin and Paul Bahn (2005) *Archaeology: The Key Concepts*, London : Routledge.
- Trigger, Bruce G (1989) *A History of Archaeological Thoughts*. Cambridge: Cambridge University Press.
- Zakaria, A.F.M (1984) *Bangladesher Pratinashampa*. Dhaka: Bangladesh Shipakola Academy.



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<b>Course Title</b>	: <b>Methods and Techniques in Field Archaeology</b>
<b>Course Code</b>	: ARCH 102
<b>Class Hours</b>	: 4 [3 hours per week (course) + 1 hour (tutorial)]
<b>Unit and Marks</b>	: Full Unit Course equivalent to 100 marks.
<b>Marks Distribution:</b>	100 [Attendance 10 + Tutorials (3) 20 + Exam 70]
<b>Assessment</b>	: Attendance 10%, Tutorials 20%, Exam 70%

### Objectives

The objectives of this course are:

- To teach the students about the methods and techniques in archaeological fieldwork and pre and post-fieldwork phase.
- To orient the first-year students to the essential concepts and ideas which are important to perform the tasks during.
- To introduce the students about the multiple ways in which observations are entangled with ideas and thoughts.
- To show students the transformations of ideas in archaeological fieldwork.
- To accustom students with the collective work in the field, with organizational, managerial, communicative, and multitasking abilities and skills which are required in unfamiliar and in often extremely disadvantageous conditions.
- To develop the capabilities of the students in illustrations, documentation, mapping, observing, and above all, ways of seeing the people and the things.

### Learning outcomes

At the end of the course, students will be able to:

Students are expected to learn basic ideas, concepts and practices of field archaeology. There are various fieldworks as part of the regular coursework of the students in second year, third year, fourth year and final year. This course acts as the foundational premise upon which the students will be able to build their understanding the concepts, their historical developments and practice in reference to the context of South Asia and Bangladesh. Practical and dialogical methods of teaching and interaction are fundamental for orienting a student in the formative first year to make them curious, skilled and communicative enough to fulfill the requirement during the fieldwork, especially, in a different environment. Students will develop their capacities of leadership, collective work and organization skills which are essential for designing any fieldwork and its logistics. Their communication skill and managerial skills will be developed after these engagements among themselves and with various people in the field.

### Contents

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#### Unit 1: Archaeology and fieldwork and the basic units of archaeology

- i. Why archaeology? What is archaeology? What is field archaeology? The Goals and the framework of archaeological inquiry: Form, Function, Process and meaning. Theoretical Archaeology Vs. Field Archaeology: Meaningless Opposition. Theoretical basis of archaeological fieldwork: Culture Historical,



Processual and post-processual theoretical paradigms in Archaeological Fieldwork. Archaeological Fieldwork Management in the socio-cultural context of Bangladesh. Cultural Resource Management (CRM) and Field Archaeology.

- ii. *Basic Units: Artifacts and Ecofacts: Definition, classification and interpretation* Importance of Artifacts and Eco facts in archaeological interpretation.
- iii. *Stratigraphy: Law of Superposition. Law of Uniformitarianism. Law of Sequence. Strata and Stratification: Identification. The Harris Matrix: interpretation of the events on a space. Terminus Post Quem and Terminus ante quem. Debate: What is the suitable method of stratigraphy in Bangladesh?*
- iv. *Archaeological sites: Problem in the definition of archaeological 'sites'. Wheelarian-Keneyonian School of Stratigraphy and its limitations. Idea of Edward Harris and revolution in archaeological stratigraphy. Positive feature, Negative Feature and Layer. Idea of Interface: Layer interface, feature interface and period interface. Types of archaeological 'sites'. Formation processes of archaeological sites/record.*
- v. *Settlement pattern: Definition. Determining factors of a settlement pattern.*
- vi. *Context: Definition. Provenance, association and matrice. Dimensions of Context. Context as a category and as a recording unit during excavation*
- vii. *Culture and archaeological culture: Culture Historical View, Functional View and Interpretive View of Culture and archaeological culture.*

### **Unit 2: Surface exploration and discovery: methods, equipment and record**

- i. Survey and Prospection. Old and new approaches to archaeological survey. Various models of cultural distributions. Survey design. Goals and types of archaeological survey. Geophysical Prospecting. Chemical Survey. Physical Features. Rocks and Minerals. Soil Sampling. Ethnological Data Collection. Legends and Folktales. Methods of Data Retrieval. Methods of Recording Site Survey Data. Off-site survey and non-site survey and their importance in Bangladesh. Statistical method and archaeological survey. Factors affecting archaeological detection. Sampling design and methods. Units, sampling frames and edge effects in archaeological survey. Prospection and spatial structure.
- ii. Library and other types of Pre-survey research. Ground Survey. Aerial Survey. Goals and types of archaeological survey. Off-site survey and non-site survey and their importance in Bangladesh. Statistical method and archaeological survey. Factors affecting archaeological detection. Sampling design and methods. Units, Map reading and mapping, Staff. Exploration Kit. Cultural biography of the archaeological record and archaeological survey.

### **Unit 3: Excavation: principles, methods, processes and interpretation**

- i. Problems and Strategy. Permission, Funding and Law with special reference to Bangladesh. Mapping. The Processes, Methods and Types of Excavation. Recurrent Types of Contexts and Their Excavation. Excavation of Structures. Excavation of Sites without Features. Excavation Staff, Equipment and Logistics. Planning and Management of Excavation. Field Preservation. Responsibility and Qualifications of an Excavation Team.
- ii. Recording methods in excavation and its relation to stratigraphy and interpretation. Interrelation of excavation method, recording method and



method of interpretation and recording of deposits, cuts, masonry, timber, skeletal remains, environmental samples: Objectives, methods, outcome. Illustrative and photographic recording. Recording of Pottery and Small Finds. Artifacts and Ecofacts: Their Recovery and Treatment.

#### **Unit 4: Post fieldwork planning, processing and finds analysis and dating**

- i. Post-fieldwork Planning. Finds Analysis: Pottery Analysis. Stone, Metal and Organic Artifacts Analysis. Bones, Seeds and Other Plants Remains Analysis. Soil and Sediments Analysis. Pollen, Land Snail and Other Environmental Sample Analysis.
- ii. Dating. Relative and Chronometric Dating Techniques. Radio Carbon Dating and its problems. Calibration of C14 dating and citation conventions.. Stratigraphic dating. Cross Dating. Fluorine-Uranium-Nitrogen Dating.

#### **Unit 5: Basics of interpreting the evidence**

- i. What is Interpretation? Excavation is interpretation. Interpretations of cultural and natural events on a 'site' through stratigraphy: Phasing and periodization. Levels of Interpretation. Interpreting Site's Environment. Interpreting the Household Activity Areas, Community Activity Areas. Interpretation of how people lived.
- ii. Archaeological Illustration. Writing a Report. Getting a Report Published. Online publication.

#### **Recommended Readings**

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- Ann Kipfer, B. (2006) *The Archaeologists' Field Work Companion*. London: Willey-Blackwell.
- Bahn, P. and Renfrew, C. (2008) *Archaeology: Theory, Methods and Practice*. New York: Thames and Hudson.
- Banning, E. B. (2002) *Archaeological Surveying*. New York: Kluwer Academic Pub.
- Banning, E. B. (2007) *The Archaeologists' Laboratory: The Analysis of Archaeological Data*. New York: Kluwer Academic/Plenum Publishers.
- Barker, P. (1993) *Techniques of Archaeological Excavation*. London: Routledge.
- Bowman, S. (1990) *Radiocarbon Dating* (Interpreting the Past Series). California: University of California Press.
- Dreweert, P. L. (1997) *Field Archaeology: an Introduction*. London: UCL Press.
- Harris, E. C. (1979) *Principles of Archaeological Stratigraphy*. New York: Academic Press.
- Hester, T. R., Shafer, H. J., and K. L Feder. (2008) *Field Methods in Archaeology* (7<sup>th</sup> edition.). United States: McGraw-Hill Humanities.
- Knudson, S. J. (1986) *Culture in Retrospect: an Introduction to Archaeology*. California: Waveland Press.
- Online resources: [www.harrismatrix.com](http://www.harrismatrix.com); [www.about.com/archaeology](http://www.about.com/archaeology); [www.wikipedia.org](http://www.wikipedia.org); <http://traumwerk.stanford.edu/archaeolog/>;



- Orton, C., Tyers, P. and Vince, A. (1993) *Pottery in Archaeology* (Cambridge Manuals in Archaeology). Cambridge: Cambridge University Press.
- Roskams, S. (2001) *Excavations* (Cambridge Manuals in Archaeology). Cambridge: Cambridge University Press.
- Spence, C. (1990) *Archaeological Site Manual*. London: The Museum of London.
- Stewart, R. M. (2001) *Archaeology: Basic Field Methods*. USA: Kendall/Hunt Publishing Company.
- Taylor, R. E. and M. J. Aitken (eds.) (1997) *Chronometric Dating in Archaeology*. New York: Springer.
- Wheeler, M. (2004) *Archaeology from the Earth*. Delhi: Munshiram Manoharlal Pvt. Ltd.



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<b>Course Title</b>	: <b>Introduction to World Prehistory</b>
<b>Course Code</b>	: ARCH 103
<b>Class Hours</b>	: 3 [2 hours per week (course) + 1 hour (tutorial)]
<b>Unit and Marks</b>	: Full Unit Course equivalent to 50 marks.
<b>Marks Distribution</b>	: 50 [Class Performance 5 + Tutorials (3) 10 + Exam 35]
<b>Assessment</b>	: Class Performance 10%, Tutorials 10%, Exam 35%

### Objectives

1. This course refers to the vast span of time since the beginning of human-like beings appeared to before invention of writing system in human culture.
2. The themes are systematically arranged and simplified for under-graduate level of understanding.
3. This course will provide an idea on physical development of man, when and where they appeared first and how they maintained their livelihood in different ecological niches.
4. The course will enrich the knowledge of prehistoric tools and making techniques, and will enhance the essence of natural living pattern of mankind.
5. The themes are systematically narrated and those will provide knowledge on gradual changes of human culture from hunting-gathering subsistence stage to beginning of agriculture.

### Learning outcomes

1. This course provides the knowledge of human origin, gradual physical development of man and their cultural patterns in different geological eras.
2. There are several subsequent courses in the academic curriculum related to proto-historic and historic cultures. Prehistoric cultural knowledge will help a student to understand subsequent cultural stages from simple and nomadic living pattern of human lifeway to complex living systems in the succeeding ages/ or from stone tools depended simple culture to sword using complex social environment.
3. Student will gather knowledge on early stone age tools and their gradual development through the ages.

### Contents

#### Unit 1 Concept of Culture Change (5 hours)

- i. An overview on how and why human culture changed from prehistoric period to early modern period.

#### Unit 2 Terms (3 hours)

- i. Meaning of the terms Prehistory, Proto-history and History.

#### Unit 3 Quaternary Geology and Development of Human Culture (8 hours)

- i. Pleistocene and Holocene; Human response to Quaternary era.
- ii. Prehistoric tools, techniques and uses.
- iii. Evolution of man.
- iii. Cultures of Australopithecus, Homo erectus, Homo sapiens and Homo sapiens sapiens.

#### Unit 4 Paleolithic Cultures and Human Achievements (6 hours)



- i. Human achievements during Paleolithic Periods.
- ii. Human migration in America.
- iii. Lower, Middle and Upper Paleolithic cultures of Europe and Africa.
- iv. Prehistoric art.

#### Unit 5 Holocene Cultures (8 hours)

- i. Holocene ecology and human culture
- ii. Mesolithic culture of Europe and Africa.
- iii. Origin of agriculture.
- iv. Origin of cultural complex society.
- v. Neolithic Culture: Type sites: Jericho in West Asia and P'ei-li-Kang culture in China.
- vi. Criteria of civilization.

#### Recommended Readings

- Barham, Lawrence and Mitchell, Peter Barham (2008) *The First Africans*. Cambridge: Cambridge University Press.
- Barnouw, V. (1989) *An introduction to Physical Anthropology and Archaeology*. Chicago: Dorsey Press.
- Bhattacharia, D. K. (1979) *Old Stone Age Tools (A Manual of Laboratory Techniques of Analysis)* Calcutta: K P Bagchi and Company.
- Bhattacharya, D.K. (1990) *Prehistoric Archaeology*. Delhi: Hindustan Publishing Corporation.
- Burdukiewicz, J.M., A. Ronen. (2003). *Lower Palaeolithic Small tools in Europe and the Levant*. BAR International Series: Oxford: Archaeopress.
- Burkitt, M.C. (1992) *The Old Stone Age* (4<sup>th</sup> edition). Calcutta: Rupa and Co.
- Chang, K.C. (1963) *The Archaeology of Ancient China*. New Haven: Yale University Press.
- Clark, G. (1980) *Mesolithic Prelude*. London: Edinburg University Press.
- Clark, G. (1989) *World Prehistory*. Cambridge: Cambridge University Press.
- Clark, J.D. (1970) *The Prehistory of Africa*. London: Thames and Hudson.
- Debenath, A. and H.L. Dibble. (1994) *Handbook of Palaeolithic Typology: Lower and Middle Palaeolithic of Europe*. Philadelphia: The University Museum.
- Gamble, C. (1986) *The Palaeolithic Settlement of Europe*. Cambridge: Cambridge University Press.
- Gamble, C. (1999) *The Palaeolithic Societies of Europe*. New York: Cambridge University Press.
- Meltzer, D. J. (2009) *First Peoples in a new World: Colonizing Ice Age America*. Berkeley: University of California Press.
- Phillips, P. (1981) *The Prehistory of Europe*. Harmondsworth: Penguin.
- Phillipson, D.W. (1985) *African Archaeology*. Cambridge: Cambridge University Press.
- Sankalia, H. D. (1964) *Stone Age Tools, their Techniques, Names, and Probable Functions*. Poona : Deccan College Postgraduate and Research Institute.
- Schick, K.D. and N. Toth (eds.) (2006) *The Oldowan: Case Studies into the earliest Stone Age*. Gosport: Stone Age Institute.
- Sharon, G. (2007) *Acheulian Large Flake Industries: Technology, Chronology and Significance*. BAR International Series. Oxford: BAR.
- Wenke, R.J. (1984) *Patterns in Prehistory*. Oxford: Oxford University Press.
- মো: মোজাম্মেল হক: ২০২৩, ধর্মের উদ্ভব ও বিকাশ: প্রারম্ভিকাল থেকে ১৫০০ প্রাক সাধারণ অব্দ পর্যন্ত, Centre for Archaeology and Heritage Research, Bangladesh.



<b>Course Title</b>	: <b>History of ancient south Asia with emphasis on socio-economic and cultural Aspect</b>
<b>Course Code</b>	: ARCH 104
<b>Class Hours</b>	: 4 [3 hours per week (course) + 1 hour (tutorial)]
<b>Unit and Marks</b>	: Full Unit Course equivalent to 100 marks.
<b>Marks Distribution</b>	: 100 [Attendance 10 + Tutorials (3) 20 + Exam 70]
<b>Assessment</b>	: Attendance 10%, Tutorials 20%, Exam 70%

### Objectives

The Political, Socioeconomic and Cultural History of South Asia during ancient period (from c. 6<sup>th</sup> century BCE- 13<sup>th</sup> century CE) are crucial for understanding the archaeological backdrop of South Asia and Bengal. The course aims at:

- Introducing students to the basics of political, socioeconomic, and cultural history of South Asia from the beginning of second urbanism to the thirteenth century CE.
  - Teaching the students, the basic social, political, cultural, religious, and economic forms, processes and structures in this region excluding Bengal.
  - Familiarizing students with the debates, dynastic chronology, issues, and developments during this temporal frame.
  - Introducing students to the essential interconnection between archaeology and history writing during historical period.
- Making the students interactive, communicative and skillful in thinking in terms of illuminating themselves.

### Learning outcomes

At the end of the course, students will be able to:

This course is crucial in the sense that historical archaeology and historical writing are entangled to each other in South Asian context. The students are expected to be familiar about the ways archaeology, literary sources and material culture are playing together in interpreting the past human lifeways from different perspectives. Students are expected also to be introduced the debates, spatial/regional trajectories, and transformations in political, social and economic lives of the people during this particular time period of nearly two millennia. Political history is not only dynastic chronology. Political history could be approached from various perspectives and the periodization of South Asian history can be rethought. The students will be trained to acquire knowledge about the basic ideas and narratives of historical developments and transformation during this particular period of time. They, therefore, will be able to connect their contemporary debates and issues to the past. They, moreover, will gather knowledge and skill to adapt themselves with the contemporary problems with the basic historical understandings.

### Contents

#### Unit 1: Cities, Kings and Renunciants: North India, c. 600-300 BCE

- i. Introduction
- ii. The Sources: Literary and Archaeological sources



- iii. Political Situation: The 16 Great states/ Mahajanapadas, The *Ganas* or *Sanghas*, Political conflicts and the growth of the Magadhan empire, The Persian and Macedonian Invasion
- iv. Economy: Land and Agrarian Expansion, The beginning of second urbanization, From village to town: The example of Atranjikhhera, The Emergence of City Life Trade and Traders, Urban occupations, crafts, guilds and money, Archaeological and Literary profiles of Early Historical cities.
- v. Society: Social Division, The new social elites: *Gahapati* And *Setthi*, Class, Kinship, Varna and Jati, Gender, Family And Household
- vi. Religious life/ The Renunciatory Traditions, The Ajivikas, Early Buddhism, Early Jainism

### Unit 2: The Maurya Empire (c. 325-185 BCE)

- i. Introduction
- ii. The major sources of the Maurya Period
- iii. The Maurya Dynasty: Foundation and Beginning, Expansion and Consolidation, The polity, The nature and structure of the Maurya Empire, Literary and Archaeological profiles of the cities.
- iv. Economy and Society: Some aspects of rural and urban life.
- v. religious life: Ashoka and Buddhism, Ashoka's Dhamma
- vi. Visual Art and Architecture/ Sculpture and Architecture
- vii. Decline and Collapse

### Unit 3: Interaction and Innovations (c. 200 BCE- 300 CE)

- i. Preliminary Remarks/ Introduction
- ii. Political History: Political History of North India, Political History of the North-west, Greeks, Sakas, Pahlavas and Kushanas, Political History of the Deccan, The Satavahanas and The Kshatrapas, Politics in the Far South, The Cheras, Cholas and Pandyas
- iii. Economy and Society: Trade and commerce, Crafts and artisan activities/ Craft and guilds, Villages and Cities, Urban Proliferation, Aspects on social change in North India and the Deccan, Varna, caste and gender, Marriage and position of women, Society in Early Historical South India, Cultural Scenario, Philosophical Development: The Astika and The Nastika Schools, Religious Scenario, Looking at the history of religions beyond the framework of 'ISMS'

### Unit 4: Aesthetics and Empire (An Epoch of the Gupta and Their Contemporaries c. 300-600 CE)

- i. Introduction
- ii. Political History/ conditions
- iii. Polity and Political Processes
- iv. The Administrative structure of the Gupta and Vakataka Kingdoms
- v. Economy and Society: Revenue resources of the states, Agriculture and Land system, Land ownership, Types of Land, Land Measures and Land Tenure, Royal land grants, The patterns of Urban History, Trade, Crafts and Guild, Social Aspects/ conditions, Gender, Forms of Labor, Slavery and Untouchability, Cultural Scenario: A survey of Literature, Sanskrit Literature, Astronomy and Mathematics, Medical Knowledge
- vi. Religions: Patterns of religious developments
- vii. Art and Architecture: A classical age of Art?
- viii. Threshold time



## Unit 5: Realms and Regions: Profiles of Economy, Society and Culture

(c. 600-1300 CE)

- i. Preliminary remarks
- ii. Sources: Literary and Archaeological
- iii. Politics and Power: North India, The Deccan and The Far South
- iv. Polity and Political Process/ Political Narrative and Political Structure: Perception of Feudal Polity, Segmentary polity, Integrative Polity
- v. Early Medieval Economy: The Agrarian Scenario, Agrarian Expansion and Hydraulic Resources, Rural Society: Regional Specifications, Royal Land Grants, Crafts and Artisanal Organization, Commerce and Media of Exchange, The Urban Scenario: “Third Urbanization”, Urban Process in Early Medieval South India
- vi. Historical Process in Early Medieval South India
- vii. An Overview of the Early Medieval Society: Proliferation of Jatis, Varna-Jati, Women and Early Medieval Society, New Feature in Social Milieu
- viii. An Overview of the Cultural Scenario: Religious Life, Language and Literature, Art and Architecture

### Recommended Readings

- Ali, D. (2004) *Courtly Culture and Political Life in Early Medieval India*. Cambridge: Cambridge University Press.
- Allchin, F.R. et al. (1995) *The Archaeology of Early Historic South Asia: The Emergence of Cities and States*. Cambridge: Cambridge University Press.
- Brockington, J. L. (1997) *The Sacred Thread: A Short History of Hinduism*. New Delhi: Oxford University Press.
- Chakravarti, R. (2016) *Exploring Early India up to c. AD 1300* (3rd ed.). Delhi: Primus.
- Chakravarti, R., (ed.) (2004) *Trade in Early India*. Delhi: Oxford University Press.
- Chakravarti, U. (1987) *The Social Dimensions of Early Buddhism*. New Delhi: Oxford University Press.
- Champakalakshmi, R. (1996) *Trade, Ideology and Urbanization: South India 300 BC to AD 1300*. New Delhi: Oxford University Press.
- Champakalakshmi, R. (1996) *Trade, Ideology and Urbanization: South India. c. 300 BC to 1300 AD*. New Delhi: Oxford University Press.
- Champakalakshmi, R. (2011) *Religion, Tradition, and Ideology: Pre-colonial South India*. New Delhi: Oxford University Press.
- Chattopadhyaya, B. D. (1997) *The Making of Early Medieval India*. New Delhi: Oxford University Press.
- Chattopadhyaya, B. D. (1998) *Representing the Other? Sanskrit Sources and the Muslims (eight to fourteenth century)* New Delhi: Manohar.
- Chattopadhyaya, B. D. (2003) *Studying Early India: Archaeology, Texts, and Historical Issues*. Delhi: Permanent Black.
- Davis, R. (1999) *Lives of Indian Images*. New Delhi: Motilal Banarsidas Publishers.
- Deyell, J. S. (1990) *Living Without Silver: The Monetary History of Early Medieval North India*. Delhi: Oxford University Press.
- Dutt, S. (2008) *Buddhist Monks and Monasteries of India: their history and their contribution to Indian Culture*. New Delhi: Motilal Banarsidas Publishers.
- Flood, F. B. (ed.) (2008), *Piety and Politics in the Early Indian Mosque*. Oxford: Oxford University Press.



- Gurukkal, R. (2010) *Social Formations of Early South India*. New Delhi: Oxford University Press.
- Jaini, P. (1979) *The Jaina Path of Purification*. Berkeley: University of California Press.
- Jaiswal, S. (1981) *The Origin and Development of Vaisnavism*. New Delhi: Munshiram Jaiswal, S. (1998) *Caste: Origin, Function and Dimensions of Change*. New Delhi: Manohar.
- Jha, D.N., (ed.) (2000) *The Feudal Order: State, Society and Ideology in Early Medieval India*. New Delhi: Manohar.
- Karashima, N. (1984) *South Indian History and Society: Studies from Inscriptions, A.D. 850-1800*. New Delhi: Oxford University Press.
- Karashima, N. (2014) *A Concise History of South India: Issues and Interpretations*. New Delhi: Oxford University Press.
- Karashima, N., (ed.) (2014) *A Concise History of South India: Issues and Interpretations*. New Delhi: Oxford University Press.
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- Manguin, P, A. Mani and G.Wade, (eds.) (2011) *Early Interactions between South and Southeast Asia: Reflections on Cross-cultural Exchange*. Singapore: Institute of Southeast Asian Studies.
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- Olivelle, P., J. Leoshko and H.P. Ray, (eds.) (2012) *Reimagining Asoka: Memory and History*. New Delhi: Oxford University Press.
- Roy, K. (2001) *The Power of Gender and the Gender of Power: Explorations in Early Indian History*. New Delhi: Oxford University Press.
- Sahu, B.P. (ed.) (1997) *Land System and Rural Society in Early India*. Delhi: Manohar.
- Sahu, B.P., (ed.) (2006) *Iron and Social Change in Early India*. New Delhi: Oxford University Press.
- Sahu, B.P., (ed.) (2013) *The Changing Gaze: Regions and the Constructions of Early India*. New Delhi: Oxford University Press.
- Sharma, R. S. (1980) *Sudras in Ancient India: A Social History of the Lower Order Down to c. AD 600*. Delhi: Motilal Banarsidas.
- Sharma, R. S. (1996) *Aspects of Political Ideas and Institutions in Ancient India*. Delhi: Motilal Banarsidas.
- Sharma, R. S. (2001) *Early Medieval Indian Society: A Study in Feudalisation*. New Delhi: Orient Longman.
- Sharma, R.S. (1980) *Indian Feudalism*. Madras: Macmillan.
- Shrimali, K.M. (2007) *The Age of Iron and the Religious Revolution*. New Delhi: Tulika.
- Singh, U. (2008) *A History of Ancient and Early Medieval India: From the Stone Age to the 12<sup>th</sup> century*. New Delhi: Pearson Longman.
- Singh, U., (ed.) (2011) *Rethinking Early Medieval India: A Reader*. Delhi: Oxford University Press.
- Subbarayalu, Y. (2011) *South India under the Cholas*. New Delhi: Oxford University Press.



- Thapar, R. (2000) *Cultural Pasts: Essays in Early Indian History*. New Delhi: Oxford University Press.
- Thapar, R. (2003) *Early India: From the Origins to AD 1300*. New Delhi: Penguin.
- Thapar, R. (2012) *Asoka and the Decline of the Mauryas* (3rd edition). New Delhi: Oxford University Press.
- Veluthat, K (1993) *The Political Structure of Early Medieval South India*. New Delhi: Orient Longman.
- Veluthat, K. (2009) *The Early Medieval in South India*. Delhi: Oxford University Press.



<b>Course Title</b>	<b>: History of ancient Bengal with emphasis on socio-economic and cultural aspect</b>
<b>Course Code</b>	: ARCH 105
<b>Class Hours</b>	: 4 [3 hours per week (course) + 1 hour (tutorial)]
<b>Unit and Marks</b>	: Full Unit Course equivalent to 100 marks.
<b>Marks Distribution</b>	: 100 [Attendance 10 + Tutorials (3) 20 + Exam 70]
<b>Assessment</b>	: Attendance 10%, Tutorials 20%, Exam 70%

### Objectives

Upon completion of the course, students will have acquired the following abilities:

This course holds significant importance as it delves into the intricate connection between people and history in the Bengal context. Students are anticipated to gain familiarity with how archaeology, literary sources, and material culture collaborate to interpret past human lifeways from diverse perspectives. Additionally, students will be introduced to debates, spatial/regional trajectories, and transformations in the political, social, and economic aspects of people's lives spanning more than two millennia.

It's essential to recognize that political history extends beyond mere dynastic chronology. The course encourages students to explore socio-political-cultural history from various viewpoints, prompting a reevaluation of the periodization of the history of Bengal. Students will be equipped with the knowledge to grasp the fundamental concepts and narratives of historical developments and transformations during this specific time frame. Consequently, they will be able to draw connections between contemporary debates and issues and the historical context, acquiring the skills to address present-day problems with a foundational understanding of history.

### Learning outcomes

Exploring the pivotal political, socioeconomic, and cultural developments in Bengal from the 4<sup>th</sup> century BCE to the 13<sup>th</sup> century CE is essential for comprehending the archaeological context of Bengal. The course is designed to:

- Providing students with an introduction to the fundamental aspects of the political, socioeconomic, and cultural history of Bengal from the onset of the 4<sup>th</sup> century BCE to the 13<sup>th</sup> century CE.
- Instructing students in the foundational social, political, cultural, religious, and economic forms, processes, and structures of Bengal.
- Acquainting students with the debates, dynastic chronology, issues, and developments that took place within the time period.
- Familiarizing students with the essential interplay between archaeology and historical writing during this historical epoch.
- Cultivating interactivity, communication skills, and critical thinking abilities among students to enhance their self-illumination.

### Contents

#### Unit 1: Introduction

- Introduction
- The sources: Literary and archaeological sources
- Geographical entities of ancient Bengal

#### Unit 2: Beginning of the History in Bengal

- Early Bengal (4<sup>th</sup> century BCE--4<sup>th</sup> century CE)
- Bengal and Gupta Domain

#### Unit 3: The Rise of the Regional Powers

- Dharmaditya



- b. Dvadasaditya
- c. Sudhanyaditya
- d. Gopachandra
- e. Samachardeva
- f. Sasanka

**Unit 3: Emergence of Political Power in Southeast Bengal(Vanga-Samatata)**

- a. Vainyagupta
- b. The Ratas
- c. The Nathas
- d. The Khadgas
- e. The EarlyDevas
- f. The Chandras
- g. The Varmans
- h. The Later Devas

**Unit 4:The Rise of Power in Harikela**

- a. Devatideva
- b. Kantideva
- c. Attakaradeva

**Unit 5: The Palas in Varendra and Beyond**

- a. Matsyanyaam and the rise of the Palas
- b. The Pala ruler: Gopal I, Dharmapala, Devapala, Mahendrapala, Surapala I, Gopala II, Narayanapala, Vighrahapala II, Mahipala and Vighrahapala III, Mahipala II, Rampala
- c. Kaivarta Rebellion
- d. The end of Pala domain

**Unit 6: Rise and Rule of the Senas****Unit 7: Society and Culture**

- a. Social and cultural life in Pundra-Varendra
- b. Social and cultural life in southeast Bengal
- c. Caste (Varna-Jati) system
- d. Social status of women
- e. Society and Culture Before the Advent of the Turks

**Unit 8: Education and Literature**

- a. The role of monasteries and temple
- b. Caryapada and its subjects
- c. Sanskrit literature and technical treatises

**Unit 9:Urbanization and Urban Centers**

- a. Pundravardhana
- b. Ramavati
- c. Samatata
- d. Karnasuvarna

**Unit 10:Economic life**

- a. Agrarian and non-agrarian Pursuits
- b. Media of exchange
- c. Inland and foreign trade

**Unit 11:Religions**

- a. Folk religions
- b. Brahmanical religions



- c. Buddhism
- d. Jainism
- e. Ajivikas

### Unit 12: Everyday life

#### Recommended Readings

- Alam, S. Md. and J-F Salles. (editors). *France-Bangladesh Joint Venture Excavation at Mahasthangarh: First Interim Report 1993-1999*. Dhaka: Department of Archaeology. 2001.
- Alam, S. Md. and J-F Salles. (editors). *France-Bangladesh Joint Venture Excavation at Mahasthangarh: Second Interim Report 1993-1999*. Dhaka: Department of Archaeology. 2017.
- Chakravarti, Ranavir. (editor). *Trade and Traders in Early Indian Society*. New Delhi: Manohar. 2007.
- Chattopadhyaya, BD. *Aspects of Rural Settlements and Rural Society in Early Medieval Bengal*. Calcutta: KP Bagchi. 1990.
- Chowdhury, A.M. and Ranabir Chakravarti. (editors). *History of Bangladesh: Early Bengal in Regional Perspectives (up to c. 1200 CE), vol. 1*. Dhaka: Asiatic Society of Bangladesh. 2018.
- Bhuiyan, Mokammal H. (editor). *Studies in South Asian Heritage*. Dhaka: Bangla Academy. 2015.
- Chowdhury, A.M. *Dynastic History of Bengal*. Dacca: Asiatic Society of Pakistan. 1968.
- Furui, Ryosuke. *Land and Society in Early South Asia: Eastern India 400-1250 AD*. London and New York: Routledge. 2020.
- Sircar, DC. *Indian Epigraphy*. New Delhi: Motilala Banarasidass. 1965.
- Some Epigraphical Records of the Medieval Period from Eastern India*. New Delhi: Abhinav Publications. 1979.
- Select Inscriptions Bearing on Indian History and Civilization, II*. New Delhi: Motilal Banarasidass. 1983.
- Studies in the Religious Life of Ancient and Medieval India*. New Delhi: Motilal Banarasidass. 2010.
- Hoque, M. M. *Prehistoric and Protohistoric Settlement Pattern of Bengal Delta*. Dhaka: Ankur Prakashani. 2002.
- Hussain, Shahanara. *Everyday Life in the Pala Empire*. Dacca: Asiatic Society of Pakistan. 1968.
- Husain, A.B.M. (editor). *Mainamati-Devaparvata*. Dhaka: Asiatic Society of Bangladesh. 1997.
- Majumdar, R. C. (editor) *The History of Bengal, (Hindu Period), vol. 1*. Dacca: Dacca University. 1963.
- Morrison, B.M. *Political Centre and Cultural Regions in Early Bengal*. Tucson: University of Arizona Press. 1970.
- Morrison, B.M. *Lalmaj, A Cultural Centre of Early Bengal*. Seattle and London: University of Washington Press. 1974.
- Rashid, M. H. *The Early History South-East Bengal in the Light of Archaeological Material*. Dhaka: History Academy. 2008.
- চৌধুরী, ড. আবদুল মমিন, *প্রাচীনবাংলার ইতিহাস ও সংস্কৃতি*, ঢাকা: মাওলাব্রাদার্স, ২০০৯।
- ভূঁইয়া, মো. মোকাম্মেল হোসেন, *প্রাচীনবাংলার পোড়ামাটির শিল্প*, ঢাকা: দিব্য প্রকাশ, ২০০৩।
- ভূঁইয়া, মো. মোকাম্মেল হোসেন, “পোড়ামাটির নিদর্শন, লিপি ও সাহিত্যে প্রতিফলিত প্রাক-মুসলিমবাংলার জীবনচিত্র,” *Pratnatattva*, vol. 5, পৃ. ৫৭-৬২।
- রহমান, সুফি মোস্তাফিজুর ও মুহাম্মদ হাবিবুল্লা পাঠান, *উয়ারী-বটেশ্বর শেকড়ের সন্ধান*, ঢাকা: প্রথমা প্রকাশন, ২০১২।
- রায়, নীহাররঞ্জন, *বঙ্গালীর ইতিহাস আদি পর্ব*, কলকাতা: দে'জ পাবলিশিং, ১৯৯৩।
- শাহনাওয়াজ, একেএম, ও ফাতেমা হেরেন, ১২০৪ খ্রিস্টাব্দ পর্যন্ত প্রাচীনবাংলার ইতিহাস, ঢাকা: প্রতীক, ২০১৯।
- হোসেন, শাহানারা, *প্রাচীনবাংলার ইতিহাস*, রাজশাহী: ইনস্টিটিউট অব বাংলাদেশ স্টাডিজ,



<b>Course Title</b>	: <b>Introduction to Anthropology</b>
<b>Course Code</b>	: ARCH 106
<b>Class Hours</b>	: 4 [3 hours per week (course) + 1 hour (tutorial)]
<b>Unit and Marks</b>	: Full Unit Course equivalent to 100 marks.
<b>Marks Distribution</b>	: 100 [Attendance 10 + Tutorials (3) 20 + Exam 70]
<b>Assessment</b>	: Attendance 10%, Tutorials 20%, Exam 70%

### Objectives

Anthropological concepts are fundamental for the understanding of the past and present of human societies and cultures. Archaeology, as a discipline, is historically and conceptually connected to the concepts and theories, interpretive frameworks and field practices of anthropology. This course aims to introduce the students to the concepts of anthropology those are essential for understanding archaeology and practice of archaeology.

### Learning outcomes

On successful completion of the module, students will be able:

- To understand the basic knowledge of anthropology.
- To understand the archaeological practice and ethnographic practice which are inseparable from archaeological fieldwork and analyses.
- To develop capabilities of students to perform social research in other disciplines and professions.

### Contents

#### Unit 1: Introduction

The historical formation of anthropology as an academic discipline. The object of the study of anthropology.

Sub- fields of anthropology and interdisciplinary specialties.

Anthropology, prehistoric archaeology and Colonialism.

The institutionalization of anthropology in Europe and U.S.A. and its concomitance with archaeology.

Relationship of anthropology and archaeology

#### Unit 2: Principles and methods

Distinctive traditional feature of sociocultural anthropology.

Principles: Cultural relativism, holism, the combination of etic and emic perspectives. Methods: Intensive fieldwork in small communities

#### Unit 3: Culture

Anthropological concept of culture.

A survey of cross-cultural studies of different dimensions of social life, viz. language., patterns of subsistence, economics, politics, religion.

Anthropology and the study of other cultures.

#### Unit 4: Ethnography and otherness

Ethnography and otherness: the colonial context of classical ethnographic studies.

The nature, scope and limitations of ethnographic fieldwork.



Otherness reconsidered: class gender and ethnography in ones 'own society.  
Dominant culture in Bangladesh.

### **Unit 5: Kinship**

Study of kinship in anthropology.  
Transformation of kinship structure of Bengal.  
Concept and forms of marriage.  
Emergence of monogamy as norm.

### **Unit 6: Class**

Concept of class.  
Relations of property.  
Dominant class and ideology.  
Indian caste system studied in anthropology.  
Construction of caste in anthropological literature.

### **Unit 7: Society and caste**

Hegemony and civil society.  
Agrarian relations and peasants in dogmatic Marxism.

### **Unit 8: Gender issues**

Gender as social relations.  
Male dominance in anthropology and archaeology.  
Construction of masculinity and femininity. Feminist movements.

### **Unit: Race**

Concept of race and its invalidity in the light of genetics and other medical terms.  
Criteria for racial classification; surface, skeletal and physiological features; race and skeleton;  
Limitations of racial discrimination in archaeological populations,  
Major races of man; sampling methods; recording of data in racial survey; statistical methods used in bio-metric research, metric and non-metric data.  
Study of race in early anthropology.  
Politics of racial classificatory systems.  
Racism in modern West.

### **Recommended Readings**

- Alavi, H (1989) Formation Structure of South Asia under the impact of Colonialism. In: H. Alavi and J. Harris (eds.) *Sociology of Developing Societies: South Asia*, pp. 5-19, UK: Macmillan.
- Banton, M. (1977) *The Idea of Race*. Michigan: University of Michigan
- Beatie, J. (1964) *Other Cultures: Aims, Methods and Achievements in Social Anthropology*. London: Routledge.
- Cheater, A.P. (1989) *Anthropology: An Alternative Introduction*. Australia: Unwin Hyman.



- Clifford, J. and G. Marcus (1986) *Writing Culture: The Politics and Politics of Ethnography*. California: University of California Press.
- Davidoff, L. and C. Hall (1987) *Family Fortunes: Men and Woman in the English Middle Class, 1780-1850*. London: Hutchinson.
- Evans Princhar, E. E. (1951, reprinted in 1992) *Social Anthropology*. London: Routledge and Kegan Paul.
- Gerald M. Sider (1986) *Culture and Class in Anthropology and History*. Cambridge: Cambridge University Press.
- Giddens, A. (1973) *The Class Structure of Advanced Societies*. London: Hatchinson.
- Guha, R. And Spivak, G. C. (eds.) (1988) *Selected Subaltern Studies*. New York: Oxford University Press.



<b>Course Title</b>	: <b>Introduction to Earth Science for Archaeology</b>
<b>Course Code</b>	: ARCH 107
<b>Class Hours</b>	: 4 [3 hours per week (course) + 1 hour (tutorial)]
<b>Unit and Marks</b>	: Full Unit Course equivalent to 100 marks.
<b>Marks Distribution</b>	: 100 [Attendance 10 + Tutorials (3) 20 + Exam 70]
<b>Assessment</b>	: Attendance 10%, Tutorials 20%, Exam 70%

## Objectives

The objectives of this course are:

1. To Gain knowledge about the geological processes that have shaped the Earth's surface, including the formation of continents and oceans. Understand the impact of diastrophism, folds, faults, and stratigraphy on the Earth's structure and geological history. Learn the principles of stratigraphy and the geological time scales to interpret archaeological sites.

2. To Identify the causes and types of mass movement and their impact on archaeological sites. Explore the role of factors such as slope steepness, composition, vegetation, water, and their contribution to mass movement events.

3. To Acquire a general understanding of minerals, their formation processes, and physical properties. Identify common rock-forming minerals and rocks, including igneous, sedimentary, and metamorphic rocks. Explore the exploitation of rocks and minerals by past human civilizations.

4. To Examine various landform processes, including stream and water action, glaciers and ice ages, coastal processes, deserts, and wind action. Understand the hydrological cycle and the formation of different landforms through erosion, transportation, and deposition.

5. To Comprehend the definition and characteristics of sediments, sedimentary texture, structure, and facies. Investigate the classification and composition of sediments and their role in interpreting depositional environments. Study soil formation factors, soil profiles, horizons, and classification, including specific soil types like histosols, vertisols, and more. Explore the concept of paleosols and buried soils and their significance in understanding past environmental conditions during the Anthropocene.

These learning objectives aim to provide a comprehensive understanding of geological and environmental factors relevant to archaeology, geosciences, and the Anthropocene, fostering a multidisciplinary approach to studying Earth's history and its impact on human societies.

## Detailed Course and Lesson Plan

### THEME 1 Introduction

Required Topic in detail

Numbers of

Classes

Classes 1-2 Archaeology, the Geosciences, and the Anthropocene

Class 3-10 **Origin of Earth,**

Origin of earth, Early and Modern Nebular Hypothesis, Structure of the earth interior: the crust, the mantle and the core; Nature and



origin of ocean; Origin and Shaping of continents: origin of continental lithosphere, changing shape of earth's continent, formation of Pangaea;

Class 11-13     **Diastrophism.** Folds: synclines and anticlines, domes and basins; Faults: types of faults and faulting Stratigraphy: Geological time scales; Stratigraphic Principles; Unconformities, Stratigraphy of Bangladesh

Class 14-20     **Mass Movement** Definition: Causes of mass movement: steepness of slope, slope composition, vegetation, water, setting off a mass movement event; Types of mass movement: slow mass movement, rapid mass movement; Impacts of mass movement on archaeological sites

## **THEME 2     Mineralogy and Petrology**

Class 21-28     i. General information on minerals and the processes of their formation; Identification of minerals: Physical properties of minerals, important minerals and mineral groups; some common rock forming minerals; Gemstones  
 ii. Rocks; Igneous rocks: magma, lava, classification of igneous rocks, some important igneous rocks, which are exploited by the past human beings; Sedimentary rocks: classification of sedimentary rocks, some important sedimentary rocks, which are exploited by past human beings; Metamorphic rocks: metamorphism, classification of metamorphic rocks, some metamorphic rocks, which are exploited by past human being; How to identify some common rocks.

## **THEME 3     Weathering**

Classes 29-31     Definition; Types of weathering processes: mechanical weathering, chemical weathering, biological weathering; Difference among Weathering, Erosion and Denudation. Impact of weathering on archaeological record.

## **THEME 4     Land form processes and Land forms**

Class 32- 36     **Stream and Water action**  
 Hydrological cycle; Streams: streams topography, stream velocity and discharge; Work of streams: stream erosion, transport and deposition, Fluvial landforms

Class 37- 39     **Glacier and Ice ages**  
 Glacier formation and growth; Classification of glaciers; Glacial flows; works of glaciers: glacial erosion, transport and deposition; other effects of glaciations; Glaciation and ice ages: pre-Pleistocene glaciations, glaciations in the Pleistocene, recent glacial events. Glacial landforms

**Class 40- 43 Coastal Processes**

Waves and currents; Tides; Coastal erosion, transport and deposition; types of coast and coastal land forms

**Classes 44- 49 Deserts and wind action**

Characteristics of deserts: types of deserts, weathering in deserts; stream erosion and transportation in deserts; Erosion, Transportation and deposition by wind, Aeolian landforms

**THEME 5 Soil and Sediment****Classes 50 - 54**

1. Sediments definition, sedimentary texture, sedimentary structure, sedimentary facies. Sediment classification, Composition, Sediment transport, Sediments and the interpretation of depositional environment.
2. Soil definition; Soil forming factors; Soil characteristics; typical soil profile and horizons; Soil classification; Soil formation; describing soil properties; Histosols, Lithosols, vertisols, fluvisols, inceptisol, mollisol, alfisol, ultisol, spodosol, aridisol, histosol; Paleosol and buried soils.

**Recommended Readings**

- Boss, Alan P. (2003) Rapid formation of outer giant planets by disk instability, *The Astrophysical Journal* 599 (1): 577–581.
- Buringh, P. (1979) *Introduction to the Study of Soils in Tropical and Subtropical Regions*, (3<sup>rd</sup> ed.). Wageningen: Centre for Agricultural Publishing and Documentation.
- Butzer K W 1976 *Geomorphology from the Earth*, Harper & Row, New York
- Ershov V. V. *et al.* (Translated by G. G. Egorov) (1988) *Fundamentals of Geology* Moscow: Mir Publishers.
- Fagan, B. (2001) *In the Beginning: an Introduction to Archaeological Practice*. New Jersey: Hall Upper Saddle River.
- Gupta A. D. and Kapoor A. N. (1995) *Principles of Physical Geography*. New Delhi: S. Chand and Company Ltd.
- Herndon, J. M. (2005) Scientific basis of Knowledge on Earth's Composition, *Current Science* 88 (7): 1034–1037.
- Herz, N. and Ervang G. (1998) *Geological Methods for Archaeology*. New York: Oxford University Press.
- Holms, A. (1978) *Principles of Physical Geology*. UK: ELBS and Thomas Nelson and Sons Ltd.
- Knudson, S.J. (1978) *Culture in Retrospect: an Introduction to Archaeology*. Illinois: Waveland Press Inc.
- Prinz M. *et al.* (1978) *Simon and Schuster's Guide to Rocks and Minerals*. New York: Simon and Schuster.
- Rajan, K. (2002) *Archaeology Principles and Methods*. Thanjavur: Manoo Pathippakam.



- Rashid, H. E. (1991) *Geography of Bangladesh*. Dhaka: University Press Ltd.
- Renfrew, C. and Bahn P. (1996) *Archaeology Theories Methods and Practice* London: Thames and Hudson.
- Shelton J.S (1996) *Geology Illustrated*. London: W. H. Freeman and Company.
- Spencer, Edger W. (1983) *Physical Geology*. Massachusetts: Addison-Wesley publishing Company, reading.
- T. H. Jordan (1979) Structural Geology of the Earth's Interior, *Proceedings of the National Academy of Science* 76 (9): 4192–4200.
- Youdin, Andrew N. and Shu, Frank N. (2002) Planetesimal Formation by Gravitational Instability, *The Astrophysical Journal* 580 (1): 494–505.
- মনসুর, মো: হোসেন (১৯৯৮)। কোয়ার্টারনারী ও বাংলাদেশের ভূ-তাত্ত্বিক ক্রমবিকাশ। ঢাকা: বাংলা একাডেমী।
- হাসান, মাহবুব ও অন্যান্য (১৯৯৫)। বাংলাদেশ প্রাকৃতিক ভূগোল ও পরিবেশ। ঢাকা: বাংলা একাডেমী।

## Learning outcomes

By integrating geological knowledge with archaeological methodologies, the student can contribute significantly to uncovering and interpreting humanity's history within the context of Earth's dynamic geological processes.

### 1. Archaeological Site Assessment:

- Understand the geological processes that have shaped landscapes over time, aiding in the identification and assessment of potential archaeological sites.
- Recognize the impact of diastrophism, including folds, faults, and stratigraphy, on the preservation and formation of archaeological layers.

### 2. Risk Mitigation and Site Preservation:

- Evaluate the causes and types of mass movement, enabling the assessment of the risk these processes pose to archaeological sites.
- Develop strategies to mitigate the impacts of mass movement on sites, ensuring the preservation of cultural artifacts and structures.

### 3. Material Analysis and Interpretation:

- Apply knowledge of mineralogy and petrology to identify and analyze materials found at archaeological sites.
- Understand the geological origin of rocks and minerals exploited by past human civilizations, aiding in the interpretation of cultural practices and trade networks.

### 4. Environmental Contextualization:

- Incorporate an understanding of weathering processes to interpret how environmental conditions have affected archaeological records over time.
- Analyze the impact of landform processes, such as stream and water action, glaciation, coastal processes, and wind action, on the formation and preservation of archaeological sites.

**5. Palaeoenvironmental Reconstruction:**

- Utilize knowledge of soil and sediment characteristics to reconstruct past environments and human activities.
- Interpret sedimentary features, classifications, and compositions to reconstruct the depositional history of archaeological sites.

**6. Cultural Landscape Analysis:**

- Apply insights from the study of Earth's origin, continental formation, and Pangaea's existence to analyze how cultural landscapes evolved and interacted with changing geological conditions.
- Explore coastal, desert, and glacial landforms to understand human adaptations and responses to diverse environments.

**7. Cross-disciplinary Collaboration:**

- Collaborate with geologists, climatologists, and environmental scientists to gain a holistic understanding of the interplay between geological processes and human history.
- Communicate findings effectively to interdisciplinary teams and contribute to a comprehensive understanding of the past.



<b>Course Title</b>	: <b>Introduction to Academic English</b>
<b>Course Code</b>	: ARCH 108
<b>Class Hours</b>	: 2 [1.5 hours per week (course) + 0.5 hour (tutorial)]
<b>Unit and Marks</b>	: Half Unit Course equivalent to 50 marks.
<b>Marks Distribution</b>	: 50 [Attendance 05 + Tutorials (3) 10 + Exam 35]
<b>Assessment</b>	: Attendance 10%, Tutorials 20%, Exam 70%

### Objectives

This course is designed to give students scope to practice English and communication skills. In doing so, the course will enable students:

- To introduce students through reading and activities to the distinctive elements of writing in business professional and technical context.
- To provide students with opportunities to practice and perfect in a series of shorter and longer assignment and projects strategies in the context.
- To engage student in active discussion produced for business professional and technical context and to pursue students to be engaged in creative composition writing.

### Learning outcomes

At the end of the course, students will be able to:

- To gain an understanding of the underlying principles of effective writing styles.
- To gain an understanding of the importance of the organization techniques of writing adapting to a variety of audiences and occasions.
- To develop demonstrative abilities and improve skills in interactive listening, speaking, reading and critical writing and thinking.

### Contents

#### Unit 1: Introduction

Introducing oneself, breaking ice with the course briefing,  
Steps of effective Writing, Grammar: Tense

#### Unit 2: Grammar Discussion

- i. Right form of verb, Verb Patterns, Subject verb agreement
- ii Techniques of word formation (suffix-prefix, etymology), Usage of modals, Usage of transitional/ linking words
- iii. Articles, preposition, Conditionals
- Listening Session
- iv. Voice change, Rules and Practice of Parallel Structure
- v. Modifiers (Misplaced Modifiers and Dangling Modifiers)
- vi. Phrases, Paraphrasing, Clauses
- vii. Fragments, Error analysis and correction
- viii. Error analysis and correction.

#### Unit 3: Reading

- i. Reading Comprehension for developing sub skills such as scanning, skimming, understanding contextual meaning, inference
- ii. Applying Reading Strategies in vocabulary building, summarizing and Giving answer

#### Unit 4: Writing

- i. Steps of Effective writing: prewriting, brainstorming, outlining (drafting), proofreading.



- ii. Paragraph writing (topic sentence thesis statement, introducer, developers, modulators, terminator etc.)
- iii. Different types of paragraphs (narrative, descriptive, argumentative, cause and effect, compare and contrast, process analysis paragraph), transitional words/devices.
- iv. Parts and Formats of Business Letter Writing Techniques and format of Cover Letter
- v. Discussion on C.V. writing, Grammar: Usage of Gerund and to be infinitive.
- vi. Letter of Acceptance, Letter of seeking Recommendation
- vii. Format and techniques of Review writing
- viii. Essay writing Technique and Format, Discussion on narrative and descriptive essay
- ix. Writing, Writing Argumentative Essay, Compare and Contrast Essay, Cause and Effect Essay

### Unit 5: Speaking

- i. Social interactive and communicative English, Polite and formal expression (requesting, inviting, asking for help, giving information, greetings key, introducing keys, seeking permission, asking for advice, giving advice or suggestion, polite offer, saying bye or bidding farewell),
- ii. English in workplaces and daily Conversation, asking and answering questions, extempore. Providing information in a formal interview context; giving an extended talk on a given topic; taking part in a formal discussion.
- iii. Giving a formal presentation, Extempore, Role Play (Situational and Functional Based).

### Unit 6: Listening Practice and Test

- i. Listening to different forms of English TV news, Talk shows, Tapescripts.
- ii. Extracting information from texts of varying lengths e.g., university lectures, radio interviews, radio documentaries, conversations; learning what information to look for and what to exclude, understand the gist.
- iii. Practice mapping: The listening module comprises four sections of increasing difficulty. Each section, which can be either a monologue or dialogue, begins with a short introduction telling the students about the situation and the speakers. Then they have some time to look through questions. The first three sections have a break in the middle allowing students to look at the remaining questions.

### Recommended Readings

- Anson, Chris M. and Schwegler, R. A. (1997) *Longman Guide for Writers and Readers- Longman Guide for Writers and Readers*. Indiana: Longman.
- Billah, Q.M., Chowdhury G. S. and Alam, M. (2014) *Foundation English for Undergraduate*. Dhaka: Friends Publication.
- Imhoof, M. L. and Herman, H. (1975) *From Paragraph to Essay- Developing Composition Writing*. Harlow: Longman.
- Langan, John. (2007) *English Skills* (9th ed.). New York: McGraw-Hill Publications
- Longan, John. (2015) *Skills in Language with Readings*. New York: McGraw-Hill.
- Swan, Michael. (1996) *Practical English Usage*. Oxford: Oxford University Press.
- Thomson, A. J. and Martinet, A.V. (1960) *A Practical English Grammar*. Oxford: Oxford University Press.



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<b>Course Title</b>	: <b>Practical: Basics of Computing for Archaeology</b>
<b>Course Code</b>	: ARCH 109
<b>Course Type</b>	: Practical
<b>Class Hours</b>	: 4 [3 hours per week (course) + 1 hour (tutorial)]
<b>Unit and Marks</b>	: Full Unit Course equivalent to 100 marks.
<b>Marks Distribution</b>	: 100 [Attendance 10 + Tutorials (3) 20 + Exam 70]
<b>Assessment</b>	: Attendance 10%, Tutorials 20%, Exam 70%

### Objectives

The objective of the course is to provide students with a deep understanding of the possibilities of the computer as a tool in archaeology and to teach them the basics of computer programming, enabling them to create new methods for research purposes. After completing the course, the incumbent is able to use the computer for basic purposes of preparing his personal/business letters, making the presentation, viewing information on Internet, sending emails, using statistical data etc. This allows the students to be also a part of computer users list by making them digitally literate. This would also aid the PC penetration program. This helps the students to maintain their academic tasks using the computers and enjoy in the world of Information Technology.

### Learning outcomes

Upon successful completion of this course, students will have the knowledge and skills to:

- understand the basic components and functions of a computer system,
- gain knowledge about the evolution of computer system,
- discuss the advantages, limitations, and applications of computers,
- understand and be comfortable with applying computer and cartographic application.

### Contents

#### Unit 1: Fundamentals

Basic concepts and organization of Computer; Some terminologies: Bit, Byte, Device, Software, Field, CPU, Character, Coding System, Data, ROM, RAM, Tablet etc; History of computer, types of computers, Logic Gate, Number system in Computer.

#### Unit 2: Computers in Archaeology

Approaches and past and present;  
Information Technology and its application.

#### Unit 3: Computer Hardware

Computer Hardware, Memory device.

#### Unit 4: Computer Software

Computer Software and programming language; Operating System Dos, Windows, XP, Vista, Linux; Windows desktop and explorer program.

#### Unit 5: MS applications

Word Processing and Microsoft Word; Multimedia and PowerPoint.

**Unit 6: Quantifying software**

Quantifying software: hands on experience on using different quantifying software Spreadsheet and Microsoft Excel; Database and Microsoft Access, SPSS.

**Unit 7: Drawing**

2D drawing: Adobe Illustrator and AutoCAD. 3D drawing: 3D Max

**Unit 8: Visualization software**

Visualization software: Adobe Photoshop and Adobe Aftereffect.

**Recommended Readings**

- Demers, M.N. (2000) *Fundamentals of Geographic Information System*. New York: John Wiley and Sons, Inc.
- Haywood, I. Cornelius, S. Carver. S. (1999) *An Introduction to Geographical Information Systems*. Harlow: Longman.
- Norton, P. (2005) *Introduction to Computers*. New York: The McGraw-Hill Companies, Inc.
- Ross, S., J. Moffett and J. Henderson (1991) *Computing for Archaeologists*. London: Oxford University Committee for Archaeology.
- Shennan, S. (1997) *Quantifying Archaeology*. Edinburgh: Edinburgh University Press.
- Silberschatz, H.F., Korth and Sudarshan, S. (1999) *Database System concepts*. New York: The McGraw-Hill Companies, Inc.
- Star, J. and Estes J. (1990) *Geographic Information Systems: an Introduction*. New Jersey: Prentice Hall, Englewood Cliffs.
- Taylor, D.R.F. (1991) *Geographic Information Systems: The Microcomputer and Modern Cartography*. Oxford: Pergamon Press.
- Westcott K.L. and R.J. Brandon (ed.) (2000) *Practical Applications of GIS for Archaeologists: A Predictive Modeling Toolkit*. London: Taylor and Francis.



<b>Course Title</b>	: <b>Practical: Survey Methods and Mapping for Archaeology</b>
<b>Course Code</b>	: ARCH 110
<b>Class Hours</b>	: 4 [3 hours per week (course) + 1 hour (tutorial)]
<b>Unit and Marks</b>	: Full Unit Practical Course equivalent to 100 marks.
<b>Marks Distribution</b>	: 100 [Attendance 10 + Practical Note Book 10+Field Tutorials/ (3) 20 + Final Exam 60]
<b>Assessment</b>	: Attendance 10%, Notebook 10 %Tutorials 20%, Exam 60%

### Objectives

The objectives of this course is to introduce the survey methods used for archaeological research. The course will focus on the various geographical survey methods and techniques which is relevant for archaeological field work. It will also demonstrate mapping techniques to the students so that they can produce archaeological maps. Besides the theoretical understanding about the various survey technique student will learn practically in the field and produce a practical hand book. They will be ready for their profession life with their practical skill of using different survey equipment and produce map for Archaeological sites.

### Learning outcomes

On successful completion of the module, students will be able to:

- Understand fundamental definitions of map, plans, scale, surveying etc.
- Demonstrate the techniques of areas computation from maps using graphical and instrumental methods.
- Understand the topographic surveying methods and interpretation of the topographic maps.
- Understand the basic components of map, methods of representing relief, contours, map enlargement and reduction process.
- Undertake plane table survey, chain and tape survey, prismatic compass survey, Theodolite traversing or leveling survey technique for archaeological research.
- Acquire knowledge to develop archaeological map and learn to read map.
- Understand basic GIS and remote sensing techniques and collecting data from GPS receiver.

### Contents

#### Unit 1: Fundamentals Definitions and Concepts

**Surveying:** Definition, Classification, Objects and Importance of Surveying, Errors in surveying and Character of Survey work;

**Maps and Plans:** Meaning and definition, History of map making, Types of maps, Importance and uses of maps;

**Scales of Map:** Definition and uses, Types of scales: Plain, Diagonal and Vernier;

#### Unit 2 : Topographic Survey

Introduction, methods of representing relief, contours, characteristics of contours, interpretation of the topographical map.

#### Unit 3 : Map Reading and Drawing

**The map;** its margin and frame, bearing, grid measurement of distance, conventional signs, features and their details, section drawing, slope and its analysis, interpretation of the topographical map.



**Computation of areas:** Computations of areas from map using graphical and instrumental methods;

**Unit 4 : Chain and Tape Survey**

Principles, field operation, basic problem in chaining, plotting a chain survey, errors and precautions, uses and limitations.

**Unit 5 : Plane Table Survey**

Definition, Survey operation, two or three point problems, errors and precautions, uses and limitations.

**Unit 6 : Prismatic Compass Survey**

Definition, Survey operation, errors and precautions, uses and limitations.

**Unit 7 : Leveling Survey**

Definition of terms used in leveling, types of level, methods of leveling, temporary and permanent adjustments of the level, effect of curvature and refraction on leveling, cross-sectioning, errors and precautions, contouring.

**Unit 8 : Using Total Station and Theodolite Traversing**

Introducing theodolite, triangulation, adjustments of the instrument, measurements of the angles, sources of errors and problems.

**Unit 9 : Mapping for Archaeology**

Archaeological Map  
Excavation site Map  
Trance Layouts

**Unit 10: Using GPS for mapping**

Introduction to GPS Receiver  
Collecting data from GPS Receiver  
Transferring Data and Developing Map using Geo coordinate

**Unit 11: Introducing Ground Penetrating Radar (GPR) for Archaeological Survey**

Ground-Penetrating Radar and Archaeology

**Unit 12: Introducing LiDAR Technology for Archaeological Survey**

LiDAR and Archaeological Exploration

**Recommended Readings**

- Arora, K.R. (1960) *Surveying* (vols. 1&2) Delhi: STD Book House.
- Aziz, M.A. and Shahjahan, M. (1965) *Surveying*, New Delhi: Tata Mcgraw-Hill.
- Laborde, E.D. (1928) *Popular Map Reading*. Cambridge: The University Press.
- Monkhouse, F.J. and Wilkinson H.R. (1954) *Maps and Diagrams*. London. Methuen & Co.
- Punmia, B.C. (1967) *Surveying*. vol. 3. New Delhi: Laxmi Publication.
- Singh, R.L. and Dutt P.K. (1951) *Elements of Practical Geography*. Allahabad: Student's Friends.
- Singh L.R. & Singh, R. (1979) *Mapwork and Practical Geography*. Allahabad: Central Book Depot.
- Singh, R.L. and Dutt P.K. (1951) *Elements of Practical Geography*. Allahabad: Student's Friends.
- Singh L.R. and Singh, R. (1979) *Mapwork and Practical Geography*. Allahabad: Central Book Depot.



**Course Title: Practical: Field Work (Survey)**

Course Code : ARCH 111  
Class Hours : Credit 4, Duration: 7 Days  
Unit and Marks : Full Unit Course equivalent to 100 marks.  
Marks Distribution : Pre-Fieldwork :15 Field Performance: 15 Report: 70