

**UNIVERSITY OF THE PUNJAB**

**NOTIFICATION**

It is hereby notified that the Syndicate at its meeting held on 27.07.2023 approved the recommendations of the Academic Council made at its meeting dated 24.05.2023 regarding grant of permission to start BS Archaeology (5<sup>th</sup> to 8<sup>th</sup> Semester) program in place of M.A. Archaeology at the Department of Archaeology with effect from Academic Session, 2022-2023

**Admin. Block,  
Quaid-i-Azam Campus,  
Lahore.**

**No. D/ 9790/Acad.**

**Sd/-  
REGISTRAR**

**Dated: 6-12-2023**

Copy of the above is forwarded to the following for information and necessary action: -

1. Dean, Faculty of Arts & Humanities.
2. Chairman, Department of Archaeology.
3. Director, Quality Enhancement Cell.
4. Director, IT for placement of Notification at website
5. A.R. (Statutes).
6. Secretary to the Vice-Chancellor.
7. PS to PVC.
8. PS to Registrar.
9. Assistant Syllabus.



**Assistant Registrar (Academic)  
for Registrar**

**Department of Archaeology, University of the Punjab**  
**Courses and Syllabi of BS Archaeology**  
**Semester 5 Admission Program w.e.f. 2021**

**Program Title: BS Archaeology Semester V-VIII**

**Duration: 02 Years**

**Semester: 04**

**Course Load per Semester: 18 Credit Hours**

**Total Credit Hours: 72**

**Eligibility: B.A/B.Sc/ADP or equivalent: 50 Credit Hours**

**Number of Seats: 30 (Open Merit 22, Reserved 8)**

**Structure (As per HEC curriculum)**

### Semester-V

Course Code	Name of Subject	Credit Hours
ARCH/127	FOUNDATION-II: Ancient History of Pakistan and India	3
ARCH/311	FOUNDATION-IX: Archaeological Tourism in Pakistan	3
ARCH/312	FOUNDATION X: Muslim History of South Asia	3
ARCH/313	MAJOR-I: Ancient World Civilizations-I (Mesopotamia, Egypt, Persia)	3
ARCH/314	MAJOR-II: Environmental Archaeology	3
ARCH/315	MAJOR-III: Ancient Art and Architecture of South Asia	3
	<b>Total Credit Hours</b>	<b>18</b>

### Semester-VI

Course Code	Name of Subject	Credit Hours
ARCH/225	FOUNDATION-VII: Principles of Archaeology	3
ARCH/321	MAJOR-IV: Ancient World Civilizations-II (China, Greece, Rome)	3
ARCH/322	MAJOR-V: Indian Paleography and Epigraphy	3
ARCH/323	MAJOR-VI: Numismatics of Pakistan and India-I (Pre Muslim Period)	3
ARCH/324	MAJOR-VII: Early Muslim Art and Architecture	3
ARCH/325	MAJOR-VIII: Research Methodology	3
	<b>Total Credit Hours</b>	<b>18</b>

## Semester-VII

Course Code	Name of Subject	Credit Hours
ARCH/223	FOUNDATION-V: Proto History of Pakistan	3
ARCH/411	MAJOR-IX: Numismatics of Pakistan and India-II (Muslim Period)	3
ARCH/412	MAJOR- X: Preliminary Sanskrit	3
ARCH/413	MAJOR-XI: Muslim Architecture of Pakistan and India	3
ARCH/414	ELECTIVE-I (within MAJOR): Jaina Heritage of Pakistan	3
ARCH/415	ELECTIVE-II (within MAJOR): Archaeological Conservation	3
	<b>Total Credit Hours</b>	<b>18</b>

## Semester-VIII

Course Code	Name of Subject	Credit Hours
ARCH/226	FOUNDATION-VIII: Museology	3
ARCH/421	MAJOR-XII: Sikh and Colonial Heritage of Punjab	3
ARCH/422	ELECTIVE-III (within MAJOR): Study of Archives	3
ARCH/423	ELECTIVE-IV (within MAJOR): Heritage Management	3
ARCH/424	Major-XIII: Thesis	6
	<b>Total Credit Hours</b>	<b>18</b>

**Total Credit Hours from Semester V-VIII = 72**

**ADP Credit Hours = 50**

**Total Credit Hours BS Archaeology 02 Years (16 years of education) = 122**

## **Course Details**

### **Semester-V**

<b>Course Code</b>	<b>Name of Subject</b>	<b>Credit Hours</b>
ARCH/127	FOUNDATION-II: Ancient History of Pakistan and India	<b>3</b>
ARCH/311	FOUNDATION-IX: Archaeological Tourism in Pakistan	<b>3</b>
ARCH/312	FOUNDATION X: Muslim History of South Asia	<b>3</b>
ARCH/313	MAJOR-I: Ancient World Civilizations-I (Mesopotamia, Egypt, Persia)	<b>3</b>
ARCH/314	MAJOR-II: Environmental Archaeology	<b>3</b>
ARCH/315	MAJOR-III: Ancient Art and Architecture of South Asia	<b>3</b>
	<b>Total Credit Hours</b>	<b>18</b>

### **ARCH/127: Ancient History of Pakistan and India**

**Type: Foundation**

**Credit Hours: 3**

**Pre-requisites: None**

#### **Introduction**

This course is aimed to trace the ancient history of Indian Subcontinent in a chronological framework. Sub-continent has been ruled by a number of dynasties, which contributed significant landmarks.

#### **Objectives**

- To enable students to understand about philosophy, beliefs, rituals and practices of religions.
- To familiarize students with the chronology.
- To familiarize students with the significance of history.

#### **Course Contents**

##### **1. Geographical factors in history of Pakistan**

##### **2. Sources of ancient history**

##### **3. Vedic Age**

- Vedic Period

##### **4. Early Historic Periods**

- Achaemenian

- Invasion of Alexander
- The Mauryans: Chandergupta Maurya, Bindusara and Ashoka

### **5. Foreign Invasions**

- Bactrian and Indo Greeks
- Scythians
- Parthians
- Kushanas
- Kushano-Sassanians
- White Huns

### **6. Regional Dynasties**

- Guptas
- Harsha Vardhana
- TurkShahis
- Odi Shahis

### **Learning Outcome**

- On the completion of this course, the students will be able to know about the chronology of different dynasties, their contribution in history as well as the several religious movements.

### **Recommended Readings**

- Abdur, Rahman. (1979). The Last Two Dynasties of the Shahis. Islamabad.
- Basham, A. L. (1963). The Wonder that was India. India.
- Curring, J. Ali. (1939). Revealing India's Past. London.
- Lioyd, J. G. (1981). Alexander the Great: Selections from Arrian. Cambridge.
- Majumear, R. C. (1952). Ancient India. Banaras.
- Majumdar, R. C. et al. (1950). History and Culture of the Indian People, Vol-I, The Vedic Age, London. Vol-II, The age of Imperial Unity, Bombay.
- (1950). An Advanced History of India, 2nd Ed. London.
- Moreland, W. H. et al. (1936). A Short History of India. London.
- Qureshi, I. H., ed. (1967). A Short History of Pakistan. Book-1, Karachi.
- Rawlinson, G. G. (1937). India: A short Cultural History. London.
- Ray, H.C. (1953). Dynastic History of Northern India. Calcutta.
- Raychaudhuri, H. C. (1953). Political History of Ancient India. Calcutta.
- Sastri, S. M. ed. (1924). Cunningham's Ancient Geography of India. Calcutta.
- Smith, V. A. (1924). Early History of India. Oxford.
- Stein, A. (1998). On Alexander's Track to the Indus. Lahore.

- Thapar, R. A. (1966.). History of India. Great Britain.
- Tripathi, R. S. (1942). History of Ancient India. Delhi.
- Various Authors, (1922). The Cambridge History of India. Cambridge.

## **ARCH/311: Archaeological Tourism in Pakistan**

**Type: Foundation**

**Credit Hours: 3**

**Pre-requisites: None**

### **Introduction**

Pakistan possesses a rich cultural diversity and both sections are designed to enhance the scope and significance of archaeological tourism of Pakistan. It will enable students to understand the general introduction and importance of different pre-historic sites to Muslim monuments in a chronological sequence.

### **Objectives**

- To introduce students the potential and significance of Pakistan's heritage
- To enable students to promote tourism in Pakistan

### **Course Contents**

- Introduction, definition, types and scope of tourism
- Related industries, origin and destination, basic infrastructure
- Significance and scope of cultural tourism
- Geography and geo-physical features of Pakistan
- **Pre Historic Sites**
- Soan Valley, Rohri Hills, Sanghao Cave
- **Proto- Historic Sites**
- Mehargarh, Sarai khola, Gumla, Harappa, Mohenjodaro, Amri, Kotdiji, Rehman Dheri, Ghanweriwala
- **Ancient Historic Cities**
- Taxila, Pushkalavati, Peshawar, Multan, Lahore, Hund
- **Buddhist Establishments and Hindu Temples**
- Jamal Garhi, Takh e Bahi, Dharma Rajika (Chirtope), But Kara I, But Kara II (Swat), Mankiyala, Jauliyan Monastery, Salt Range Temples.

- **Cities and Monuments**
- **Cities:** Bambhore, Mansura
- **Monuments:** Multan Tombs, Uch Sharif, Lal Mara Sharif, Makli Hills, Chaukhandi Tombs, Sadan Shaheed

### **Learning Outcome**

After completion of this course, the student would be able to analyze relationship between cultural heritage and tourism, identify, develop, manage and market the rich cultural heritage of Pakistan.

### **Recommended Readings**

- Allchin, F. R. & B. (1982). *The Rise of Civilisation in India and Pakistan*. Cambridge,
- Faccenna, D (1964). *Guide to the 1956-62 Excavations—Swat*. Rome.
- Fairservis, W. (1971). *Roots of Ancient India*. New York.
- Excavation at Kot Koiji, *Pakistan Archaeology*, No. 2, 13-85, Karachi 1965.
- Marshall, J. (1960). *A Guide to Taxila*. Karachi. rpt.
- Menicol, Hurray. (1985). *History, Heritage and Environment*. London.
- Paterson, T. T. & Drummond, H. J. H. (1962). *Soan the Paleolithic of Pakistan*. Karachi.
- Qalib-i-Abid and Musarrat Abid, (Eds.) (2006). *Cultural History of the Punjab*. Lahore.
- Sankalia, H. D. (1962). *Prehistory and Protohistory in India and Pakistan*. Bombay.
- Siddiqi, M. I. (1959). *Wadei Sindh ki Tehzib* (Urdu). Karachi.
- Ikram, S. M. (194). *Muslim Civilization in India*. Lahore.
- Subarao, B. (192). *Personality of India: A Metropolis of the Northwest Frontier*. Oxford.
- Wheeler, M. (1959). *Early India and Pakistan*. Bombay.

## **ARCH/312: Muslim History of South Asia**

**Type: Foundation**

**Credit Hours: 3**

**Pre-requisites: None**

### **Objectives**

On completion, the student would be familiarized with the conquest of different parts of South Asia at the hands of various Muslim invaders, to analyze cultural, political, religious and social conditions of the present-day South Asia.

### **Course Contents**

1. **Introduction**
2. **Arabs**

### 3. **Turks**

### 4. **Afghans**

- Lodhis
- Sikandar Lodhi, his administration and religious policy
- Ibrahim Lodhi and his weaknesses
- End of the Sultanate of Delhi
- Suris
- Sher Shah Suri
- Early life, capture of the throne and conquests; Reforms, administration and Public welfare projects; achievements as a ruler; Successors of Sher Shah; End of Suri dynasty.

### 5. **Mughals and Post Mughals**

- Phases of establishment and transition from Sultanate to
- Badshahat CE 1526 to 1576
- Mughal society, culture and administration CE 1576 to 1707
- Late Mughal phase CE 1707 to 1857.

### **Recommended Readings**

- Ali, M. (198). *The Court of the Great Mughals*. Lahore.
- Amjid, Y. *Tareekh-e-Pakistan* (Urdu), Vols. I & II.
- Babar, Zahiruddin. *Tuzuk-i Babari (The Memoirs of Babar)*, Eng. Trans. A. S. Beverige, Lahore: Sang-i Meel Publications.
- Bakhshi, S. R. (ed.) (2003). *Advanced History of Medieval India* (3vols). New Delhi: Anmol Publishers.
- Barani, Z. (1986). *Tarikh-i Feroz Shahi*, Urdu tr. Aftab Asghar. Lahore.
- *Cambridge History of India*, Vols. II, III & IV.
- Dani, A.H. (2008). *History of Pakistan: Pakistan through the Ages*. Lahore: Sang-e Meel Publications.
- Elliot & Dowson. (1976). *The History of India as Told by Its Own Historians*, all Vols. Lahore.
- Ikram, S. M. (1966). *Muslim rule in India & Pakistan: 711-1858 A.C.* Lahore: Star Book Depot.
- Ikram, S. M. (1994). *Aab-i Kausar* (Urdu). Lahore.



- Ikram, S. M. (1992). *Mauj-i Kausar* (Urdu). Lahore.
- Ikram, S. M. *Rud-i Kausar* (Urdu), Lahore, 1988.
- Majumdar, R.C. (ed). (1970). *An Advanced History of India* (Volume 2). Delhi.
- Naqvi, H. K. (1990). *History of Mughal Government & Administration*. Delhi: Kanishka Publishing House.
- Nazim, M. (1971). *The Life and Times of Sultan Mahmud of Ghazna*. New Delhi.
- Qureshi, I. H., (ed.) (1992). *A Short History of Pakistan*. Karachi: Karachi University Press.
- Riazul, Islam. (1970). *Indo-Persian Relations*. Teheran: Iranian Culture Foundation.

## **ARCH/313: Ancient World Civilizations-I (Mesopotamia, Egypt, Persia)**

**Type: Major**

**Credit Hours: 3**

**Pre-requisites: None**

### **Introduction**

This paper primarily focuses on the concept of civilization through the emergence of different civilized societies in the world. The student will be able to analyze different aspects of various ancient world civilizations such as socio political setup, writing system, languages, art and architecture etc.

### **Course Contents**

#### **1. Concept of Civilization**

- Concept of culture and civilization
- Elements of civilization
- Basic conditions of civilization

#### **2. Mesopotamian Civilization**

- Environmental background
- Chronology (3500-600 BC)
- Socio-political set-up of the Sumerians, Akkadians, Babylonians, Assyrians and Chaldeans
- Various aspects of civilization: art, architecture, writing, seals, religions and economy

#### **3. Egyptian civilization**

- Egypt geophysical history and its impact on local cultures

- Art and architecture
- Religion
- Writing system
- Contribution in literature, science, philosophy, medicine

#### **4. Iranian Civilization**

- Origin of Iranian Civilization
- Achaemenians: history and formation of their empire
- Provincial administration system
- Zoroastrian Religion
- Art and architecture
- Cyrus
- Darius I and Darius II
- Sasanians

#### **Recommended Readings**

- Breasted, J. H. (1944). *Ancient Times—A History of the Early World*. Boston.
- Durant, W. (1954). *Our Oriental Heritage*. New York.
- Frankfort, H. (1970). *Art and Architecture of the Ancient Orient*. USA.
- *The Birth of Civilizations in the Near East*, London, 1959.
- Frye, R. N. (1956). *The Heritage of Persia*. New York.
- Ghoshman, R. (1968). *Iran, from the earliest Time to the Islamic conquest*. England.
- Kenoyer, J. M. (1999) *Indus Civilization*. Oxford.
- Ralf & Burns. (1974). *World Civilization*. New York.
- Roaf, M. (1964). *Cultural Atlas of Mesopotamia and the Ancient Near East* Roux. London.
- Smith, W. S. (1958). *The Art and Architecture of Ancient Egypt*. London.
- Watson, W. (1966). *Early Civilisation of China*. London.
- Boyle, J. A. (1978). *Persia: History and Heritage*. London.

## **ARCH/314: Environmental Archaeology**

**Type: Major**

**Credit Hours: 3**

**Pre-requisites: None**

### **Course Contents**

#### **1. Introduction**

- Ecosystem
- Paleo environmental studies
- Concepts for Paleoenvironmental reconstruction
- Mechanisms of environmental changes
- Human response to environmental changes

#### **2. Chronology**

- Introduction to chronometry and correlation
- Measuring time with isotopes and magnetism

#### **3. Climate**

- Scales in time and space
- Climate reconstruction

#### **4. Geomorphology**

- Landforms
- Landforms of shores and shallow water

#### **5. Sediments and soil**

- Basic principles of sedimentology and soils science
- Study techniques in sedimentology
- Archaeological matrices

#### **6. Vegetation**

- Concept and methods in Paleobotany
- Vegetation in Paleoecology

#### **7. Fauna**

- Faunal Paleoenvironments: concept and methods
- Faunal Paleoecology
- Human among animals

#### **8. Integration**

- Anthropocentric Paleoecology

### **Recommended Readings**

- Buzer, K.W. (1971). *Environment and Archaeology*. Chicago
- Butzer, K. W. (1982). *Archaeology as Human Ecology*. New York: Cambridge University Press.
- Dincauze, F. Dena. (2000). *Environmental Archaeology: Principles and Practice*. London: Cambridge University Press.
- Evans, J. G. (1978). *An Introduction to Environmental Archaeology*. London: Cornell University Press.
- Goudie A. (1981). *Geomorphological Techniques*. London: George Allen and Unwin.
- Shackley, M. (1981). *Environmental Archaeology*. London

### **ARCH/315: Ancient Art and Architecture of South Asia**

**Type: Major**

**Credit Hours: 3**

**Pre-requisites: None**

#### **Introduction**

This course is primarily designed to probe the origin of different artistic and architectural forms that have been evolved through the centuries. It will greatly facilitate the students in understanding the Buddhist and Hindu stylistic as well as architectural traditions of Pakistan and India.

#### **Course Contents**

##### **1. Architecture**

- Vedic Period architectural traditions
- Mauryan architecture
- Buddhist architecture: Stupa, Monastery, Rock-Cut Sanctuaries, etc.
- Hindu and Jain architecture.

##### **2. Art**

- Mauryan art
- Shunga art
- Early Andhra art
- Later Andhra art
- Mathura art (Kushan Period)

- Gandhara art (Kushan Period)
- Origin of the Buddha image
- Gupta art
- Ajanta cave paintings
- Gandhara School of Painting
- Buddhist Art of Kashmir
- Iconography of Hindu Triad
- Rock Art of Pakistan.

### **Recommended Readings**

- Ackermann, H. C. (1975). *Narrative Stone Reliefs from Gandhara in the Victoria and Albert Museum in London, ISMEO Reports and Memoirs XVII*. Rome.
- Banerjea, J. N. (1956). *The Development of Hindu Iconography*. Calcutta 1956.
- Behrendt, K. A. (2004). *The Buddhist Architecture of Gandhara*. Leiden.
- Behrendt, K. A. (2007). *The Art of Gandhara in the Metropolitan Museum of Art*. New Haven.
- Bhattacharyya, B. (1963). *The Indian Buddhist Iconography*. Calcutta.
- Brown, P. (1956). *Indian Architecture Buddhist and Hindu Periods*. Bombay.
- Chakrabarti, Mangala. (2006). *A Catalogue of Sculptures of Mathura School in the Indian Museum*. India: Indian Museum Calcutta.
- Dani, A.H. (1968). *Gandhara Art of Pakistan*. Peshawar.
- Foucher, A. (1914). *The Beginnings of Buddhist Art*. London.
- Harle, J. C. (1974). *Gupta Sculptures*. London.
- Huntington, S. L. & Huntington, J. C. (1985). *The Art of Ancient India Buddhist, Hindu, Jain*. New York.
- Ingholt, H. (1957). *Gandhara Art in Pakistan*. New York.
- Khan, M. Ashraf. (2005). *A Catalogue of Gandhara Stone Sculptures in the Taxila Museum*. Islamabad.
- Khan, Gul Rahim, (2015) *A Catalogue of Sculptures from Butkara III (Swat), Khyber Pakhtunkhwa in the SSAQ Museum of Archaeology and Ethnology, University of Peshawar, Vol-I*. Peshawar: Department of Archaeology, University of Peshawar
- Knox, J. R. (1992). *Amaravati, Buddhist Sculpture from the Great Stupa*. British Museum.

- Kurita, I. (1998). *Gandhara Art* (2 Vols). Tokyo.
- Marshall, J. (1951). *Taxila*. Cambridge.
- Marshall, J. (1960). *The Buddhist Art of Gandhara*. Cambridge.
- Masih, F. (2015). *Temples of the Salt Range and North and South Kafirkot: A Detailed Analysis of Their Architecture and Decoration*. Lahore: University of the Punjab.
- Nasim Khan, M. (2000). *Buddhist Paintings in Gandhara*. Peshawar.
- Nasim Khan, M. (2006). *Treasures from Kashmir Smast: The Earliest Śaiva Monastic Establishment*. Peshawar.
- Nasim Khan, M. (2010). *The Sacred and the Secular. Investigating the Stupa and Settlement Site of Aziz Dheri*. Peshawar.
  
- Nehru, L. (1989). *Origin of Gandharan Style A Study of Contributory Influences*. Delhi.
- Rosenfield, J. M. (1967). *The Dynastic Arts of the Kushans*. Berkeley.
- Rowland, B. (1953). *Art and Architecture of India Buddhist, Hindu, Jain*. London.
- Zwalf, W. (1996). *A Catalogue of the Gandhara Sculpture in the British Museum*. The Trustees of the British Museum.

## Semester-VI

Course Code	Name of Subject	Credit Hours
ARCH/225	FOUNDATION-VII: Principles of Archaeology	3
ARCH/321	MAJOR-IV: Ancient World Civilizations-II (China, Greece, Rome)	3
ARCH/322	MAJOR-V: Indian Paleography and Epigraphy	3
ARCH/323	MAJOR-VI: Numismatics of Pakistan and India-I (Pre Muslim Period)	3
ARCH/324	MAJOR-VII: Early Muslim Art and Architecture	3
ARCH/325	MAJOR-VIII: Research Methodology	3
	<b>Total Credit Hours</b>	<b>18</b>

### ARCH/225: Principles of Archaeology

**Type: Foundation**

**Credit Hours: 3**

**Pre-requisites: None**

#### Objectives

- To comprehend methods and techniques of archaeological survey, excavation, chronology, analysis of artefacts, etc.

#### Course Contents

##### 1. Introduction

##### 2. Time

- Relative and absolute chronology
- Stratigraphy and law of superimposition.
- Cross-dating with objects of known age
- Dendrochronology
- Thermo luminescence (TL) dating
- Radiocarbon dating
- Potassium Argon dating
- Fission track method
- Pollen analysis

- Pleistocene geochronology

### **3. Discovery**

- How the ancient sites got buried
- Discovering archaeological sites and their features
- Aerial reconnaissance: Satellite imaging, aerial Photography

### **4. Survey**

- Geographical Information System (GIS)
- Global Positioning System (GPS)
- Map reading
- Interpretation of aerial photographs
- Photogrammetry
- Survey at ground level
- Chain survey
- Contour map
- Use of compass and theodolite
- Electron Distance Measurer (EDM) /Total Station, 3D Scanner
- Electrical resistivity survey
- Proton magnetometer
- Sound-wave survey

### **5. Excavation**

- Organization of an archaeological excavation
- Excavation tools
- Lay-out of an excavation
- Excavation methods: Sondage, grid-strip, quadrant etc.
- Types of Excavation: Verticals & horizontal, resource, etc.
- Trial trench
- Demarcation of layers (Stratigraphy)
- Sample collection: Soil, Pollen, Wood, Charcoal, bone, etc.

### **6. Recording**

- Three dimensional measurements (=context)
- Graph plotting
- Record card
- Computer recording



- Field diary
  - Archaeological photography
  - Archaeological drawing.
  - Artefact distribution map
7. Pottery yard
- Layout of pottery-yard
  - Washing/cleaning and registration
  - Classification
  - Typology
  - Pottery tabulation
8. Registration, Cataloguing
- Accession register
  - Cataloguing of antiquities
  - Antiquity distribution map.
9. Computer Application in the Analysis of Archaeological Data
10. Report Writing and Publication

### **Recommended Readings**

- Alexander, J. (1970). *The Directing of Archaeological Excavations*, London. New York.
- Atkinson, R. J. C. (1953). *Field Archaeology*, 2nd ed. London.
- Barker, P. (1983). *The Technique of Archaeological Excavation*, London, 1983.
- Binford L. R. and Binford S. R., eds (1968). *New Perspective in Archaeology*. Chicago.
- Bowman, S. (1990). *Radiocarbon Dating*, British Museum. London.
- Butzer, K. W. (1971). *Environment and Archaeology: An Introduction to Pleistocene Geography*. Chicago.
- Coles, J. M. ((1973). *Archaeology by Experiment*, London.
- Daniel, G. E. (1976). *150 Years of Archaeology*. Cambridge.
- Doran, J. E. & Hodson, F. R. (1975). *Mathematics and Computers in Archaeology*. Edinburgh University Press.
- Fleming, S. (1977). *Dating in Archaeology*. London.
- Harris, E. C. (1989). *Principles of Archaeological Stratigraphy*. London.
- Harris, E. C. (1979). *Principle of archaeological stratigraphy*. New York: Academic Press.
- Joukowsky, M. (1998). *A Complete Manual of Field Archaeology*.
- Parkes, P. A. (1986). *Current Scientific Techniques in Archaeology*. London.

- Renfrew, C. and Bahn, P. (1991). *Archaeology: Theories, Methods and Practices*. London.
- Renfrew, C. (2000) *Loot, Legitimacy and Ownership: the ethical crisis in Archaeology*, London: Bristol Classical Press.
- Wheeler, R.E.M. (1954). *Archaeology from the Earth*. Oxford: Clarendon Press.
- White, G.G. and T.F. King (2007). *The Archaeological Survey Manual*, Walnut Creek: Left Coast Press

## **ARCH/321: World Civilizations-II (China, Greece, Rome)**

**Type: Major**

**Credit Hours: 3**

**Pre-requisites: None**

### **Introduction**

This paper primarily focuses on the concept of civilization through the emergence of different civilized societies in western the world. The student will be able to analyze different aspects of various ancient world civilizations such as socio-political setup, writing system, languages, art and architecture etc.

### **Contents**

#### **1.Chinese civilization**

- Shang Dynasty
- Chou Dynasty
- Chen Dynasty
- Art and architecture
- Contributions in philosophy

#### **2.Greek Civilization**

- origin and development of the Greek Civilization
- origin of city states
- Hellenic and Hellenistic phases
- Art and architecture
- Literature
- Philosophy
- Science

#### **3.Roman Civilization**

- Origin and development of Roman Empire
- General characteristics of Roman Culture
- Art and architecture
- Philosophy and science
- Roman Law

### **Recommended Readings**

- Breasted, J. H. (1944). *Ancient Times—A History of the Early World*. Boston.
- Durant, W. (1954). *Our Oriental Heritage*. New York..
- Frankfort, H. (1970). *Art and Architecture of the Ancient Orient*. USA.
- (1959). *The Birth of Civilizations in the Near East*. London.
- Frye, R. N. (1956). *The Heritage of Persia*. New York.
- Ralf and Burns (1974). *World Civilization*. New York.
- Watson, W. (1966). *Early Civilisation of China*. London.

## **ARCH/322: INDIAN PALAEOGRAPHY AND EPIGRAPHY**

**Type: Major**

**Credit Hours: 3**

**Pre-requisites: None**

### **Introduction**

This course is primarily designed to trace the origin and development of ancient scripts, styles, use of ancient languages in epigraphs, techniques of engraving on hard surfaces of rocks, slabs, metal plates, etc. The major outcome of this course would be to know about valuable historical data contained within these epigraphs.

### **Course Contents**

- 1. Introduction to different ancient Indian scripts**
- 2. Origin of writing in Pakistan and India (South Asia).**
- 3. Brahmi Script**
  - Area

- Materials
- Characters and symbols
- Origin
- Development
- Sharada
- Devanagri.

#### 4. Kharoshthi Script

- Area
- Materials
- Characters and symbols
- Origin
- Decipherment
- Development

#### 5. Epigraphy

- Importance of Epigraphic research in Archaeology
- History of Epigraphic research in Archaeology
- Survey of the Epigraphic records
- Epigraphy as a source of ancient history of Pakistan and India.

#### Recommended Readings

- Agrawala, P. K. (1983). *Imperial Gupta Epigraphs*. Varanasi.
- Bhandarkar, D. R. (1932). *A List of Inscriptions of Northern Indian in Brahmi and Its Derivative Scripts, from about 200 A.C.* Calcutta.
- Buhler, G. (1904). *Indian Palaeography*. Calcutta.
- Burgess, J. (1970). *Epigraphia Indica*, Vol. II, Indian rpt.
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- Dani, A. H. (1963). *Indian Palaeography*. Oxford.
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- Hultzsch, E. (1925). *Corpus Inscriptionum Indicarum*, Vol. I. Oxford.
- Konow, S. (1929). *Corpus Inscriptionum Indicarum*, Vol. II. Calcutta.
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- Nasim Khan, M. (2010). *The Sacred and the Secular. Investigating the Stupa and Settlement Site of Aziz, Peshawar Valley, Khyber Pukhtoonkhwa* (3 vols). Peshawar.
- Pandey, R. B. (1957). *Indian Palaeography*. Banaras.1952
- Salomon, R. (998). *Indian Epigraphy*. New Delhi.
- Sircar, D. C. (1966). *Indian Epigraphical Glossary*. Varanasi.
- Sircar, D. C. (1965). *Indian Epigraphy*. Delhi.
- Upasak, C. S. (2001). *History and Palaeography of Kharoshthi Script*. Varanasi.

### **ARCH/323: Numismatics of Pakistan and India-I (Pre Muslim Period)**

**Type: Major**

**Credit Hours: 3**

**Pre-requisites: None**

#### **Introduction**

This course fundamentally focuses on the study of the coins of Pakistan and India. It marks the most significant aspects to reconstruct the history. It will greatly facilitate the students to learn about the ancient history and several other aspects such as cultural diversity, socio-economic, political and religious conditions.

#### **Course Contents**

##### **1. Introduction**

- Numismatics: Definition, scope and significance
- Mints
- History of coins
- Techniques of manufacturing coins

## 2. Numismatics: Pre-Muslim Period

- Antiquity of coinage in India and Pakistan
- Punch marked coins
- Indo-Greek coins
- Scytho-Parthian coins
- Kushan coins
- Huna coins
- Hindu-Shahi coins

### Recommended Readings

- Rahman, A. (1979). *The Last Two Dynasties of the Shahis*. Islamabad.
- Bhandarkar, D. R. (1984). *Lectures on Ancient Indian Numismatics*. Patna.
- Bopearachchi, O. & Amanur Rahman. (1995). *Pre-Kushana Coins in Pakistan*. Islamabad.
- Bopearachchi, O. (1993). *Indo-Greek, Indo-Scythian and Indo-Parthian Coins in the Smithsonian Institute*. Washington.
- Chakraborti, S. K. (1986). *Socio-religious and Cultural Study of the Ancient Indian Coins*. Delhi.
- Cooper, R. D. (1988). *The Art and Craft of Coin Making: A History of Minting Technology*. London.
- Cribb, J. (1986). *Money: from Cowrie Shell to Credit Cards*. London.
- Cunningham, A. (1967). *Coins of Medieval India from the Seventh Century Down to the Muhammadan Conquests*. London.
- Cunningham, A. (1962). *Later Indo-Scythians*, Vol. II, rpt. Varanasi.
- Gardner, P. (1966). *The Coins of the Greek and Scythic Kings of Bactria and India in the British Museum*. London.
- Mitchiner, M. (1973). *The Origin of Indian Coinage*. London.
- Narain, A. K. (1957). *Indo-Greeks*. Oxford.
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- Sahni, B. (1945). *The Technique of Casting Coins in Ancient India*, Memoirs of the Numismatic Society of India, Vol. I. Bombay.
- Singh, S. S. (1984). *Early Coins of North India: An Iconographic Study*. New Delhi.
- Smith, V.A. (1972). *Coins of Ancient India*, Vol. I of *Catalogue of the Coins in the Indian Museum, Calcutta*. Oxford.
- Whitehead, R. B. (1977). *Catalogue of Coins in the Punjab Museum*, Vol. III, rpt. Lahore.
- Whitehead, R. B. (1914). *Catalogue of Coins in the Punjab Museum*, Lahore, Vol. I. Oxford.
- Whitehead, R.B. (1977). *Catalogue of Coins in the Lahore Museum*, Lahore, Vol II.

## **ARCH/ 324: Early Muslim Art And Architecture**

**Type: Major**

**Credit Hours: 3**

**Pre-requisites: None**

### **Introduction**

This course fundamentally focuses on the early Muslim art and architecture. It is divided into two sections. Section one deals with architecture which was evolved after the rise of Islam. Architecture has the language of its own and marks the expression of thoughts, beliefs and ideals. It would help students to explore the different architectural forms manifested in religious and secular structures. Section two deals with the arts of Islamic era. It marks a definite style, repertory of motifs and striking innovation. Student would learn that how it was evolved with an idea and a faith.

### **Course Contents**

#### **Section-A: Architecture**

##### **1. Origin and development of early Muslim architecture**

- Mosque of Madina
- Khana Kaba

##### **2. Ummayyad Architecture**

- The Dome of Rock
- Great Mosque of Damascus
- Qusayr Amra
- Great Mosque of Qairawan
- Qasr-al-Hair-ash-Sharqi
- Qasr-al-Tuba (The Palace of Mshatta)
- Great Mosque of Haroon

### 3. Abbasid Architecture

- Foundation City of Baghdad
- The Great mosque of Raqqa
- Great mosque od Cardova
- Masjid al Aqsa
- Sammra: Mosque nd Palaces

### Section-B: Art

- Early Islamic Art upto Abbasid Period
- Art in Persia until Mangol conquest
- Mesopotamia: 10th to 13th century
- Persia: Mangol Period
- Syria and Egypt: 12th to 13th century
- The Seljuks
- The Ottoman Turks

### Recommended Readings

- Cresswell, K.A.C. (1958). *A Short Account of Early Muslim Architecture*. London.
- K.A.C (1932-40). *Early Muslim Architecture*, 2 vols. New York.
- David Wade. (1976). *Patterns in Islamic Art* London. New York.



- Dunn, W. (1908). *The Principle of Dome Construction*, *Architectural Review*, XXIII,
- Edwards, C.C. (1915). *History of the Dome in Persia*, Journal Royal Asiatic Society. London.
- Hillenbrand, R. (1994). *Islamic Architecture: Form, Function and Meaning*. New York: Columbia University Press.
- Pereira, Jose. (2004). *The Sacred Architecture of Islam*. New Delhi.
- Rice, David. Talbot. (1975). *Islamic Art*. Thames and Hudson.

### **ARCH/325: Research Methodology**

**Type: Major**

**Credit Hours: 3**

**Pre-requisites: None**

#### **Course Contents**

- Definition, problems, types etc.
- Archaeological research design
- Archaeological research project
- Formulation of hypothesis
- Implementation of research
- Data collection, different methods/techniques, etc.
- Analysis of archaeological data
- Interpretation and synthesis of archaeological data
- Research report/Seminar/Oral examination

#### **Recommended Readings**

- Hult, C. A. (1990). *Researching and Writing Across the Curriculum*, 2<sup>nd</sup> Ed. California.
- Lester, J. D. (1987). *Writing Research Papers: A Complete Guide*. London.
- Marius, R. (1989). *A Short Guide to Writing about History*. London.
- Sharer, R. J. and Wendy A. (1980). *Fundamentals of Archaeology*. London.
- Naz Arifullah, S. & Bhutti, K.M. (1995). *Research Process Simplified*. Peshawar.
- Goode & Hatt. (2000). *Methods in Social Research*. Islamabad: National Book

Foundation

- Mali, A. L. Pancholi Kundan. (1988). *The Fundamentals of Research Methodology*. Jaipur.
- Bahr, C. & Albert. (2000). *Social Science Research Methods*. Islamabad: National Book Foundation.

## Semester-VII

Course Code	Name of Subject	Credit Hours
ARCH/223	FOUNDATION-V: Proto History of Pakistan	3
ARCH/411	MAJOR-IX: Numismatics of Pakistan and India-II (Muslim Period)	3
ARCH/412	MAJOR- X: Preliminary Sanskrit	3
ARCH/413	MAJOR-XI: Muslim Architecture of Pakistan and India	3
ARCH/414	ELECTIVE-I (within MAJOR): Jaina Heritage of Pakistan	3
ARCH/415	ELECTIVE-II (within MAJOR): Archaeological Conservation	3
	<b>Total Credit Hours</b>	<b>18</b>

### ARCH/223: Proto History of Pakistan

**Type: Foundation**

**Credit Hours: 3**

**Pre-requisites: None**

#### Introduction

This course focuses proto historic period when people invented writing and got expertise in various fields of life like town planning, bead making, pottery manufacturing, trade and many other fields of life. This course discusses all developments in said periods and addresses the process of urbanization in this region.

#### Objectives

- By studying this course students will be able to understand the development in human life through millions of years on one hand and on the other may comprehend the significance of the land of Pakistan in archaeological perspective.

#### Course Contents

##### 1. Introduction

- Discovery of Indus Vally civilization
- Definition and Characteristics of Protohistory
- Terminology: Indus Culture, Indus Civilization, Greater Indus Valley Civilization, Indus Sarasvati civilization, Pre-Harappan, Early Harappan, Harappan, Post Harappan.

##### 2. Early Indus Period

- Understanding of terms: Kot Dijian, Ravi Phase, Hakra Phase
- Major Settlements of early Harappan: Mehrgarh, Kot Diji, Rehman Dhari, Kalibangan, Sarai Khola, Gumla.

### **3. Mature Indus Period**

- Major sites – Mohenjodaro, Harappa, Ganwariwala, Balakot, Allahdino, etc.
- Geographical Distribution of mature Indus Cities
- Art and Architecture
- Town Planning
- Indus Scripts and its decipherment
- Major Crafts
- Seals
- Trade and Commerce
- Decline of Indus civilization and Late Harappans
- Aryan Problem

#### Learning Outcome

After completion of this course, the student will be able to analyze different aspects of the Indus civilizations

### **Recommended Readings**

- Allchin, R & Bridget. (1982). The Rise of Civilization in India and Pakistan. London.
- Allchin, B. and Allchin F.R. (1982). The Birth of Civilization in India and Pakistan. Cambridge University Press.
- Casal, E. J. H. (1938). Further Excavations at Mohenjo-daro. 2 vols. New Delhi.
- Chakravati, Dilip K. (2003). Indus Civilization Sites in India: New Discoveries. New Delhi.
- Dani, A. H. (1991). Rediscovery of the Civilization of Central Asia. Islamabad: Quaid-i-Azam University.
- Gupta, S. P. (1979). Archaeology of Soviet Central Asia and the Indian Borderland, Vols. I & II. Delhi.
- Kenoyer, Jonathan Mark. (1999). Ancient Cities of the Indus Valley. Karachi: Oxford University Press.
- Kenoyer, Jonathan Mark (1989). Old Problems and New Perspective in the Archaeology of South Asia. Wisconsin University Press.
- Khan, F. A. (1965). Excavations at Kot Diji?. Pakistan Archaeology. No.2..

- Jacobson, J., ed. (1986). Studies in the Archaeology of India and Pakistan. New Delhi.
- Khan, F. A. (1958). Preliminary Report on Kot Diji Excavations 1957-8. Karachi.
- Khan, F. A. (1964). The Indus Civilization and Early Iran. Karachi.
- Khan, F. A. (2002). The Kot Diji Culture. Khairpur University.
- Lal, B. B. (1997) The Earliest Civilization of South Asia. New Delhi.
- Mughal, M. R. (1998). Ancient Cholistan. Lahore.
- Possehl, G., ed.,. (1979). Ancient Cities of the Indus. New Delhi
- Possehl, G., ed.. (1982). Harappan Civilisation. New Delhi.
- Possehl, G., ed Harappan Civilization: Contemporary Perspective.
- Possehl, G., ed. (1980). The Indus Civilisation in Saurashtra. New Delhi.
- Mackay, E. J. H. (1943). Chanhu-daro Excavations. Nes Haven.
- Marshall, Sir John (1931) Excavations at Mohenjodaro, Vol. I – III. London.
- Maheswar, I.M. (1997). The Indus Script. New Delhi.
- Mughal, M. R. (1971). The Early Harappan Period in the Greater Indus Valley. Michigan.
- Sankalial, H. D. (1974). Prehistory and Protohistory of India and Pakistan. 2nd edn. Poona.
- Fairservis, W. A. (1971). The Roots of Ancient India. 2nd edn. India.
- Possehl, G. L. (ed.). (1979). Ancient Cities of the Indus. New Delhi.
- Shaffer, G. (1974). Allahdino and the mature Harappan. Cleveland.
- Parapola, A. & Koskeniemi, K.. (1973). Corpus of Texts in the Indus Script. Helsinki.
- Raikes, R. L. (1964). The end of the anicnet cities of the indus', American Anthropologist, pp.284-99.
- Stacul, G. (1966). Preliminary reprot on the pre-Buddhist necropolises in swat', East and West. Vol. 16.
- Vats, M. S. (1941). Excavations at Harappa. 2 vols. Delhi
- Wheeler, R. E. M. (1968). The Indus Civilization. Cambridge.

### **ARCH/411: Numismatics of Pakistan and India-II (Muslim Period)**

**Type: Major**

**Credit Hours: 3**

**Pre-requisites: None**

#### **Introduction**

This course fundamentally focuses on the study of the Muslim coins of Pakistan and India. It marks the most significant aspects to reconstruct the history. Thus, it will greatly facilitate

the students to learn about the Muslim history and several other aspects such as cultural diversity, socio-economic, political and religious conditions.

### **Course Contents**

1. Numismatics of Muslim Period: Introduction
2. Coins of the local rulers of Banbhore and Mansura
3. Coins of the Ghaznavid and Ghorid rulers
4. Coins of the early Sultanate period
  - Khaljis
  - Tughlaqs
  - Syeds
  - Lodhis
  - Suris
5. Coins of the Mughal rulers
6. Coins of Local rulers

### **Recommended Readings**

- Rahman, A. (1979). *The Last Two Dynasties of the Shahis*. Islamabad.
- Bhandarkar, D. R. (1984). *Lectures on Ancient Indian Numismatics*. Patna.
- Bopearachchi, O. & Amanur Rahman. (1995). *Pre-Kushana Coins in Pakistan*. Islamabad.
- Bopearachchi, O. (1993). *Indo-Greek, Indo-Scythian and Indo-Parthian Coins in the Smithsonian Institute*. Washington.
- Chakraborti, S. K. (1986). *Socio-religious and Cultural Study of the Ancient Indian Coins*. Delhi.
- Cooper, R. D. (1988). *The Art and Craft of Coin Making: A History of Minting Technology*. London.
- Cribb, J. (1986). *Money: from Cowrie Shell to Credit Cards*. London.
- Cunningham, A. (1967). *Coins of Medieval India from the Seventh Century Down to the Muhammadan Conquests*. London.
- Cunningham, A. (1962). *Later Indo-Scythians*, Vol. II, rpt. Varanasi.
- Gardner, P. (1966). *The Coins of the Greek and Scythic Kings of Bactria and India in the British Museum*. London.
- Mitchiner, M. (1973). *The Origin of Indian Coinage*. London.

- Narain, A. K. (1957). *Indo-Greeks*. Oxford.
- Nasim Khan, M. (2006). *Treasures from Kashmir Smast – The Earliest Shivaite Monastic Establishment*. Peshawar.
- Nasim Khan, M, Errington, E & Cribb, J. (2008). *Coins from Kashmir Smast – New Numismatic Evidence*. Peshawar.
- Sahni, B. (1945). *The Technique of Casting Coins in Ancient India*, Memoirs of the Numismatic Society of India, Vol. I. Bombay.
- Singh, S. S. (1984). *Early Coins of North India: An Iconographic Study*. New Delhi.
- Smith, V.A. (1972). *Coins of Ancient India*, Vol. I of *Catalogue of the Coins in the Indian Museum, Calcutta*. Oxford.
- Whitehead, R. B. (1977). *Catalogue of Coins in the Punjab Museum*, Vol. III, rpt. Lahore.
- Whitehead, R. B. (1914). *Catalogue of Coins in the Punjab Museum*, Lahore, Vol. I. Oxford.
- Whitehead, R.B. (1977). *Catalogue of Coins in the Lahore Museum*. Lahore.
- Wright, N. H. (1974). *The Coinage and Metrology of the Sultans of Delhi*. Delhi.

### **Arch/412: Preliminary Sanskrit**

**Type: Major**

**Credit Hours: 3**

**Pre-requisites: None**

### **Course Contents**

1. The Devnagri script
2. Nouns—masculine, feminine and neuter
3. Seven different cases of nouns
4. Verb-roots divided into ten classes or conjugations
5. The improper diphthong or guna
6. Important Sanskrit inscriptions found in Pakistan

### **Recommended Readings**

- Whitney W. D. (1879). *A Sanskrit Grammar*. Leipzig and London.
- Macdonell. A. A. (1916). *A Vedic Grammar*. Oxford.
- Allen, W.S. (1953). *Phonetics in Ancient India*. London.

- Belvalkar, S. K. (1915). *Systems of Sanskrit Grammar*. Poona.
- Geiger, W. Tr, B, K. Gosh. (1943). *Pali Literature and Language*. Calcutta.

## **Arch/ 413: Muslim Architecture of Pakistan and India**

**Type: Major**

**Credit Hours: 3**

**Pre-requisites: None**

### **Introduction**

This course is designed to probe the different architectural and artistic traditions of Muslim architecture in India and Pakistan. Muslims have produced magnificent art of building in the long span of time covering 8<sup>th</sup> century to 18<sup>th</sup> century. It marks an era of rich architectural splendors. On completion of this course, the student would be able to identify sources and development of Muslim Architecture evolved under different ruling dynasties.

### **Course Contents**

#### **1. Sources of Indian Architecture**

#### **2. Arab Period**

- Banbhore Mosque
- Mansurah Mosque

#### **3. Ghaznavid Period**

- Odigram
- Gira Mosque
- Tomb of Sai-ud-Daula Mahmood

#### **4. Ghurid Period**

- Tomb of Khalid bin Walid
- Tomb of Shah Yousaf Gardez
- Tomb of Shahab-ud-Din Ghouri

#### **5. Sultanate Period**

- Quwwatul Islam Mosque
- Qutb Minar
- Tomb of Iltutmish
- Adam Wahan



- Tomb of Baha-ud-din Zakriya
- Tomb of Sadan Shahed
- Tomb of Baba Farid Ganj Shaker
- Tomb of Ala-ud-din Khilji
- Alai Darwaza
- Tomb of Ghiyasud-din Tughlaq
- Shah Rukn-e-Alam

#### **6. Suri Period**

- Rohtas Fort
- Tomb of Sher Shah Suri

#### **7. Mughal Period**

- Tomb of Hamayun
- Lahore Fort
- Fateh Pur Sikri
- Maryam Zamani Mosque
- Hiran Minar
- Jahangir's Tomb
- Noor Jahan's Tomb
- Lal Masjid Delhi
- Taj Mahal
- Wazir Khan Mosque
- Shalamar Garden
- Badshahi Mosque

#### **Recommended Readings**

- Abdur Rahman. (1981). *Islamic Architecture of Pakistan: An Introduction*. Peshawar.
- Ali, T. (1988). *Anonymous Tombs in the Gomal Valley and the Beginning of Tomb Architecture in Pakistan*. Peshawar.
- Arnold, T. et al. (2001). *Islamic Art and Architecture*. Goodword Books.
- Brown, P. (1942). *Indian Architecture (The Islamic Period)*. Bombay.
- Bunce, Fredrick W. (2004). *Islamic Tombs in India: Iconography and Genesis of their Design*. New Delhi: D.K.Printworld.

- Chughtai, M. A. (1972). *The Badshahi Masjid: History and Architecture*. Lahore.
- Chughtai, M. A. (1975). *The Wazir Khan Mosque Lahore: History and Architecture*. Lahore.
- Dani, A. H. (1982). *Thatta-Islamic Architecture*. Islamabad.
- Ettinghausen, R. & Grabar, O. (1987). *The Art and Architecture of Islam 650-1250*, New Haven: Yale University Press.
- Field, R. (1998). *Geometric Patterns from Islamic Art & Architecture*. Taurin Publications.
- Guide Books on *Thatta, Lahore Fort, Shalimar Garden, Banbhore*, Department of Archaeology and Museums, Government of Pakistan.
- Hillenbrand, R. (1994). *Islamic Architecture: Form, Function and Meaning*. New York: Columbia University Press,
- Kak, R.C. (1991) *Ancient Monuments of Kashmir*. Mirpur: Verinag Publishers
- Khan, A. N. (1983). *Multan: History and Architecture*. Islamabad.

### **ARCH/ 414: Jaina Heritage of Pakistan**

**Type: Elective**

**Credit Hours: 3**

**Pre-requisites: None**

#### **Objectives**

Jaina heritage is a less studied and much ignored subject in our country. The objective of this course is to acquaint the scholars of archaeology to understand and appreciate this genre of art and architecture that constitute our country's rich heritage. This course will contribute to the understanding of Jaina history, philosophy, schism, traditions in general and Jaina art and architecture in Pakistan in particular with an overview and comparison of important Jaina temples of India.

#### **Course Contents**

- **History and Philosophy of Jainism**
  - What is Jainism?
  - Jaina History (From Mahavir to present)
  - Jaina History in Pakistan
  - Major Jaina Sects
  - Jain Traditions: Sources, Antiquity, Features

- Tirthankaras and other deities
- Jain Mythology, Cosmology (introductory)
- Jain Literature
- Rituals and Practices
- Jaina Pilgrimage Sites and Temple Cities
- **Jaina Art and Architecture in Pakistan**
- **Architecture**
  - Jaina Architecture in India (Introductory)
  - Jaina Architecture of Punjab
  - Jaina Architecture of Sindh
- **Art**
  - Sculptural Art
  - Paintings

### **Recommended Readings**

- Ahmad, M. (2015, March). Newly Discovered Jaina Carana Padukas in Chel-Abdal Chakwal. *CoJS Newsletter*, pp. 40-43.
- Bhaskar, B. J. (1972). *Jainism in Buddhist Literature*. Nagpur: Alok Prakashan.
- Bhattacharya, B. C. (1971). *The Jaina Iconography*. Delhi: Motilal Banarsidass.
- Bhattacharyya, H. (1925). *Divinity in Jainism*. Madras: The Devendra Printing & Publishing Co. Ltd.
- Bhattacharyya, P. (1992). Buddhist and Jain Influence on Manu and His Interpretation of Veda. *Proceedings of the Indian History Congress*. 53, pp. 106-109. Indian History Congress.
- Brown, P. (1959). *Indian Architecture (Buddhist and Hindu Periods)*. Bombay: D. B. Taraporvala Sons & Co. Private LTD.
- Buhlar, J. G. (1903). *The Indian Sect of Jainas*. Vienna. Retrieved from <http://www.herenow4u.net/index.php?id=83000>

- Chatterjee, A. K. (1984). *A Comprehensive History of Jainism (1000 A.D. to 1600 A.D.)* (Vol. II). Calcutta: Firma KLM Private Limited.
- Dayal, P. P. (1902). *Jain Itihaas*. Ambala: Matba Sat'bhoshan.
- Dwivedi, A. (2010-2011). Uniqueness of the Magadhan School of Art in the Jaina-Iconography. *Proceedings of the Indian History Congress*. 71, pp. 1088-1094. Indian History Congress.
- Farquhar, J. N., & Griswold, H. (1915). *The Religious Quest of India*. Dublin: Oxford University Press.
- Flugel, P., & Ahmad, M. (2018). An Exploratory Survey of The Jaina Heritage in Pakistan. *Jaina Studies*, pp. 26-32.
- Gait, E., C.S.I, C.I.E, & I.C.S. (1913). *Census Of India, Vol (I), Part II-Tables*. Calcutta, India: Superintendent Government Printing.
- *Gazetter of the Multan District 1923-24*. (1926). Lahore, Punjab, Pakistan: Sang e Meel Publications.
- Gupte, R. S. (1972). *Iconography Of The Hindus Buddhists and Jains*. Bombay: D.B. Taraporevala Sons & CO. Private LTD.
- Huntington, S. L., & Huntington, J. C. (2006). *The Art of Ancient India*. London: WeatherHill Boston.
- Jain, C. R. (1974). *Fundamentals of Jainism*. U.P.: Veer Nirvan Bharti.
- Jain, S. L. (2006). *ABC of Jainism*. Agra: Maitree Samooh.
- Jaini, J. (1916). *Outlines of Jainism*. Cambridge University Press.
- Khan, K. A. (1933). *Census of India, 1931 Vol XVIII. Punjab Part II, Tables*. Lahore, Punjab, India: Civil and Military Gazetts Press.
- L. Middleton, I., & S.M. Jacob, I. (1923). *Census Of India, 1921. Vol (XV). Punjab and Delhi Part I Report*. Lahore, India: Civil and Military Gazetts Press.
- *Multan District (1923-24)*. (1926). *Punjab District Gazetteers, Vol. VII, Part-A*. Lahore, Punjab, Pakistan.
- Nahar, P. C. (1917). *An Epitome of Jainism*. Calcutta: H. Duby Ghulab Kumar Library.
- Prasad, B. S. (1995). *A Comparative Study of Jainism and Buddhism*. Delhi: Sri Satguru Publications.
- Prasad, P. (1993). The Jain Community in the Delhi Sultanate. *Proceedings of The Indian History Congress*. 54, pp. 223-230. Indian History Congress.

- Punjab District Gazetteers, Vol XXXIII (B). (1907). *Multan District, Statistical Tables, With Maps 1904*. Punjab, Pakistan: The Punjab Government.
- Qaiser, I. (2017). *Ujarray Daraan Dy Darshan*. Lahore: Pakistan Punjabi Adabi Board.
- Rai, L. L. (1925). *Historical Facts About Jainism*. Bombay: The Jain Association of India.
- Rao, S. R. (1997). *Indian Temple Traditions*. Bangalore: UBS Publishers Distributers LTD.
- Rowland, B. (1953). *The Art and Architecture of India: Buddhist, Hindu, Jain*. Pinguin Books.
- Roy, A. K. (1984). *A History of Jains*. New Delhi: Gitanjali Publishing House.
- Shah, S. (n.d.). *The Traditional Chronology of Jainas*.
- Shah, U. P. (1970). A Parshvanatha Sculpture in Cleveland. *The Bulletin Of The Cleveland Museum of Art*, 57(9), 303-311.
- Shah, U. P. (1998). *Studies In Jaina Art*. Varanasi: Parsvanatha Vidyapitha.
- Vijay, M. K. (1957). *Jainism in Nutshell*. Ahmadabad: Babulal Bhagwanji Mehta.
- Warren, H. (1916). *The Library of Jaina Literature "Jainism"* (Vol. VI). Allahabad: The Central Jaina Publishing House Arrah.
- Wiley, K. L. (2006). *The A to Z of Jainism*. New Delhi: Vision Books PVT. Ltd.

## **Arch/415: Archaeological Conservation**

**Type: Elective**

**Credit Hours: 3**

**Pre-requisites: None**

### **Objectives**

- After completing this course, the student would get familiarized with the basic techniques, principles of conservation, ancient materials, and conservation problems faced by the moveable and immoveable archaeological heritage

### **Course Contents**

#### **1. Introduction**

- Definition and terminology
- Conservation ethics

- The process of conservation
- Pre-excavation considerations
- Field laboratory
- First-aid treatment to archaeological objects
- Environmental control of excavated artefacts
- Different types of materials used for the conservation and restoration of archaeological artefacts
- Conservation in practice: a collaborative exercise.

## **2. Simple Chemistry: Definition of Basic Terms**

- Acid, Base, Alkali, pH
- Humidity: relative humidity, micro-organisms
- Temperature
- Light and its units
- Conductivity
- Atmospheric pollution.

## **3. Agents of Deterioration and Preservation**

- Introduction
- Organisms/Micro-organisms
- Animals and plants
- Archaeological environments
- Agents of decay
- Water, Oxygen, acidity and alkalinity, redox potential, salts
- Temperature
- Conditions in archaeological environments for preservation.

## **4. General Techniques of Conservation**

- Siliceous and related materials
- Metals
- Organic materials
- Preservation of archival materials: paper conservation

### **Recommended Readings**

- Agrawal, O.P. (1999). *Care and Preservation of Museum Objects, National Research.*

- (19977). *Laboratory for Conservation of Cultural Property*. Lucknow.
- Cronyn, J. M. (1989). *Elements of Archaeological Conservation*. London.
- Dowman, E. A. (1970). *Conservation in Field Archaeology*. London.
- Hamilton, Donny L. (1999). *Methods of Conserving Archaeological material from underwater sites*. Conservation Research Laboratory Center for Maritime Archaeology and Conservation.
- Hodges, H., ed. (1987). *In Situ Archaeological Conservation*. Santa Maria.
- Sandra, D. (2003). *Conservation and Restoration of Glass*. Butterworth-Heinemann.
- Smith, C. W. (2003). *Archaeological Conservation Using Polymers: Practical Applications for Organic Artifact Stabilization*. Texas.
- Teutonico, Jane Marie. (1988). *A Laboratory Manual for Architectural Conservation*. Rome: ICCROM.
- Thomson, G. (1978). *The Museum Environment: Conservation in the Arts, Archaeology and Architecture Series*. London.
- UNESCO. (1972). *Master Plan for the Preservation of Mohenjo Daro*.
- *Handbook of Museum Conservation*.
- (1968). *The Conservation of Cultural Property, with Special Reference to Tropical Conditions*. Paris.

## Semester-VIII

Course Code	Name of Subject	Credit Hours
ARCH/226	FOUNDATION-VIII: Museology	3
ARCH/421	MAJOR-XII: Sikh and Colonial Heritage of Punjab	3
ARCH/422	ELECTIVE-III (within MAJOR): Study of Archives	3
ARCH/423	ELECTIVE-IV (within MAJOR): Heritage Management	3
ARCH/424	Major-XIII: Thesis	6
	<b>Total Credit Hours</b>	<b>18</b>

### ARCH/226: Museology

**Type: Foundation**

**Credit Hours: 3**

**Pre-requisites: None**

#### Introduction

This course primarily focuses on the study of museums, their collection, display, curatorial function and its role in education. This subject helps students in their professional career particularly when they get jobs in museums.

Objectives

- To know about the concept, origin, development, technical aspects, management and scope of the Museum.
- To educate the students about museum, labeling, exhibitions and handling the cultural material either displayed in galleries or housed in reserves.

### Course Contents

#### 1. Museum and Its Function

- Definition and its scope
- Functions: collection, recording, preservation, exhibition and education
- Different types of museums
- History of Museology in Pakistan
- Problems and prospects of museums in Pakistan

#### 2. Museum Administration

- General organisation



- Staff and their functions: Director, Curator, technical, public-relation, educational, clerical, security, and contingent

### **3. Documentation**

- Record keeping: Registers/Computer punch cards
- Temporary accession
- Permanent accession
- Record of storage
- Gallery record

### **4. Care and Storage of Museum Objects**

- Objects on display
- Objects in stores (Storage conditions, Accessibility)
- Record of movement of museum exhibits & reserve
- Care against theft, dampness, dust, temperature, and light
- Care and repair of museum objects

### **5. Museum Architecture**

- Requirement of museum building
- Plan for a museum
- Storage facilities
- Display galleries
- Service facilities: Library, photography, offices, workshops, etc.
- Public facilities: Cafeteria, gift-shop, lavatories

### **6. Museum Exhibition**

- Permanent exhibition
- Planning and setting up an exhibition
- Showcase designing
- Labels
- Lighting
- Background of exhibits
- Mounting objects
- Temporary exhibition
- Traveling exhibition

### **7. Museum Education Research Programme**

- Educational programme of a museum: Lectures, seminars, film-shows and cultural-shows
- Research and publications

- Research facilities in a museum
- Museum library

## **Recommended Readings**

- Buck, R. A. and Jean Allman (eds.) (2010) Museum Registration and Methods, 5th edn., Gilmore: The AAM Press
- Burn, N. J. (1995). Field Manual for Museums. Washington D. C.
- Dani, A. H. (1970). A Survey of Museums and Archaeology in Pakistan. Peshawar.
- Dar, S. R. (1977). Archaeology and Museums in Pakistan. Lahore.
- Dar, S. R. (1980). Museology and Museum Problems in Pakistan. Lahore.
- Dar, S. R. (1979). Repositories of our Cultural Heritage: A Handbook of Museums in Pakistan. Lahore.
- Dudley, Sandra and Kylie Message (eds.) (2013). Museum Worlds.
- UNESCO, The Organization of Museums; Museums Association of Pakistan; Canadian Museums Association; Studies in Conservation; International Council of Museums; Journal of the American Group for Conservation; Technology and Conservation.
- Shakoor, M. A. (1953). Museum Studies and Archaeology. Peshawar.
- Simmons, John E. (2006). Things Great and Small, Collection Management Policies. AAM.
- Singh, A. P. (2006). Conservation and Museum Techniques. New Delhi.
- Thomson, G. (1978). The Museum Environment: Conservation in the Arts, Archaeology and Architecture Series. London.
- UNESCO, Handbook of Museum Conservation.

## **ARCH/421: Sikh and Colonial Heritage of Punjab**

**Type: Major**

**Credit Hours: 3**

**Pre-requisites: None**

### **Course Contents**

#### **1. Sikh Architecture**

- **Introduction**
- Sikh Period: an overview
- Characteristic features of Sikh architecture
- Different styles of the Sikh architecture

## 2. Sikh Monuments in Punjab

- Gurduwara
- Samadhi
- Havelis
- Shrines

## 3. British Architecture

- Introduction
- Colonial Period: an overview
- Characteristic features of the colonial architecture
- Different styles of the British colonial architecture
- Classification of Colonial Architecture

## 4. Colonial Monuments in Punjab

- Churches
- Markets
- Banglows
- Clock-towers
- Hospitals
- Educational institutions
- Judicial buildings
- Government buildings
- Museums and
- Roads and bridges
- Railway stations
- Post-office

### **Recommended Reading**

- Brown, Percy. (1942). *Indian Architecture: Islamic Period*. Bombay.
- Chaudhry, Nazir. Ahmad. (2000). *A Short History of Lahore: And Some of Its Monuments*. Lahore: Sang-e-Meel Publications.
- Cunningham, J.D. (1955). *History of the Sikhs*, Delhi.
- Khan, M. W. (2000). *Sikh Shrines In Pakistan* . Delhi : Kalpaz Publisher .
- Kipling, J. L., & Thornton, T. H. (2002). *Lahore As It Was: Travelogue, 1860*. Lahore: National College of Arts.

- Lari, Yasmeen., & Lari, S. Mihail. (1996). *The Dual City of Karachi: During the Raj*. Karachi: Heritage Foundation and Oxford University Press.
- Latif, S.M. (1992). *Lahore: Its History, Architectural Remains and Antiquities*. Lahore: Sang-e-Meel Publications.
- Metcalf, Thomas. R. (1989). *An Imperial Vision: Indian Architecture and Britain's Raj*. London: Faber and Faber.
- Mumtaz, Kamil. Khan. (1985). *Architecture in Pakistan*. Singapore: Concept Media.
- Steinbach, C. (2005). *The Punjab*. Lahore: Sang e Meel Publications.
- Vandal, P. V. (2006). *The Raj Lahore and Bhai Ram Singh*. Lahore: Research and Publication Centre National College of Arts.

### **ARCH/ 422: Study of Archives**

**Type: Elective**

**Credit Hours: 3**

**Pre-requisites: None**

### **Aims & Objectives**

Archives are a compulsory component of research in history. Most of Basic Documents/Primary Sources are shelved in different places called Archives. New dimensions of historical events are probed with the help of Archival material which testifies that reality as No Document, No History. Therefore, this is necessary for researchers to know about places/Archives and the material lying in these Archives.

### **Course Content**

#### **1. Defining Archives**

- Primary Sources
- Importance/Why a country needs Archives?
- Record-Maintaining...Cataloguing
- Kinds of Records
- Methods of Preservation
- Administration and Archives

#### **2. Archives in Pakistan**

- **Punjab Archives, Civil Secretariat Lahore**
- Mughal Period----

- Mutiny Papers
  - Maharaja Ranjit Singh Papers
  - Record of British Period...(Provincial)
  - Partition Records
- 3. Archeological Archives**
- Lahore Museum
  - Lahore Fort
  - Taxila Museum etc.
- 4. National Documentation Centre, Cabinet Division, Islamabad**
- Cabinet Division
  - Secret Intelligence Police Reports (Punjab, etc.)
  - Record of British Library London in Microfilms
  - Record regarding Freedom Movement
  - Record on Princely States and Provinces
  - Personal Papers (Major Short Papers, Glancy Papers, Linlithgow Papers)
- 5. Private Archives**
- Faqir Library, The Mall, Lahore
- 6. Newspapers Archives**
- Basic records at offices of newspapers (press releases, statements, etc.)

### **Recommended Readings**

- Laura Millar. (2010). *Archives: Principles and Practice*. New York: Neal Schuman Publishers.
- Cheryl Avery & Mona Holmlund (eds). (2010). *Better Off Forgetting? Essays on Archives, Public Policy and Collective Memory*. Toronto: Toronto University Press.
- Michael Ray Hill (2009). *Archival Strategies and Techniques*. London.
- *Graduate Archival Research Hawaiian Studies* 602, fall 2011.
- Professor Gesa E Kirsch PhD (Editor), *Beyond the Archives: Research as a Lived Process*.

## **ARCH/ 423: Heritage Management**

**Type: Elective**

**Credit Hours: 3**

**Pre-requisites: None**

### **Course Contents**

#### **1. Introduction**

- Conservation, Preservation and Restoration
- Ethics of conservation
- Principles of Conservation

#### **2. International Charters of Conservation for the conservation and restoration of Archaeological sites and monuments**

- The Venice Charter 1964.
- The Florence Charter 1981.
- The Washington Charter 1987.
- Charter for the protection and Management of the Archaeological Heritage 1996.
- The Burra Charter (The Australian National Committee of ICOMOS ,1999)

#### **3. Documentation of Archaeological Sites/Monuments.**

- Photographic Documentation.
- Plane Table Survey.
- Triangulation.
- Theodolite.
- Total Station.

#### **4. Materials**

- Study of different materials like Baked Brick, Unbaked Brick, Lime, Stone, Mud and Wood.
- Chemical Analysis of different mortars used by the builders in the construction of old buildings.

#### **5. Factor Contributing to the Deterioration of Monuments / Sites**

a. Man Made Damages:

- Exhaust of vehicles, Fire, Encroachment, Faulty services like water supply and sewer lines, Traffic vibration. Industrial pollution and defective conservation work.

b. Natural Damages:

- Sun light, Thunderstorm, Winds, Windblown sand, Floods, Snow, Salinity, Rising of water table, Rains, Plants, animals and Earthquakes.

#### 1. Steps for the Conservation

- i. Study of Symptoms.
- ii. Identification of Problems.
- iii. Treatment.

#### **Recommended Readings**

- Agrawal, O.P. (1999). *Care and Preservation of Museum Objects, National Research.*
- (19977). *Laboratory for Conservation of Cultural Property.* Lucknow.
- Cronyn, J. M. (1989). *Elements of Archaeological Conservation.* London.
- Dowman, E. A. (1970). *Conservation in Field Archaeology.* London.
- Hamilton, Donny L. (1999). *Methods of Conserving Archaeological material from underwater sites.* Conservation Research Laboratory Center for Maritime Archaeology and Conservation.
- Hodges, H., ed. (1987). *In Situ Archaeological Conservation.* Santa Maria.
- Sandra, D. (2003). *Conservation and Restoration of Glass.* Butterworth-Heinemann.
- Smith, C. W. (2003). *Archaeological Conservation Using Polymers: Practical Applications for Organic Artifact Stabilization.* Texas.
- Teutonico, Jane Marie. (1988). *A Laboratory Manual for Architectural Conservation.* Rome: ICCROM.
- Thomson, G. (1978). *The Museum Environment: Conservation in the Arts, Archaeology and Architecture Series.* London.
- UNESCO. (1972). *Master Plan for the Preservation of Mohenjo Daro.*
- *Handbook of Museum Conservation.*
- (1968). *The Conservation of Cultural Property, with Special Reference to Tropical Conditions.* Paris.

### **ARCH/424: Thesis**

**Type: Major**

**Credit Hours: 6**

**Pre-requisites: None**