

**Department of Sanskrit Studies  
University of Hyderabad**

**Syllabus for Ph.D Course Work**

**Title:**

**2.1 SK801: Research Methodology : [Credits: 4]**

**Course outline:**

1. Characteristics of Research and Methodology
  - Meaning of Research, Objectives of Research;
  - Controlled, Rigorous, Systematic, Verifiable, Critical and Empirical kinds of research;
  - Types of research - Descriptive vs Analytical, Pure vs Applied
  - Research Methods vs Methodology;
2. Concept of Pure and Applied Research
  - Concept and definition of Pure/Fundamental/Basic research
  - Concept and definition of Applied/Experimental research
3. Research Methods and Techniques
  - Exploratory, Constructive, Empirical; Qualitative and Quantitative
4. Inductive-Deductive Methods
  - Inductive reasoning, Deductive reasoning, Inductive vs Deductive reasoning
  - Falsificationism of Karl Popper
5. Research Process
  - Formation of Research Problem; Literature Review; Hypothesis; Collecting Data; Analysis of Data; Interpreting Results; Conclusion
6. Writing a Research Proposal
  - Methods and Techniques
7. Recent Trends in Higher Education
  - UGC guidelines, Research journals, Journal Publications, Style guides in publishing papers
8. Insights from Indian Research Methodology
  - Anubandha Catustaya; Tantrayuktis; Sangatis; Nyāyas

**Reading Material:**

1. Research Methodology - Methods and Techniques by C.R. Kothari, New Age International (P) Ltd, New Delhi
2. Research Methodology by R. Pannerselvam, PHI Learning, New Delhi
3. Anusandhana paddhati of Prof. Bhagirath Prasad Tripathi, Sarasvati sushama, vol.2, V.S. Sampurnanda Sanskrit University

**Title:**

**2.2 SK802: पदार्थविज्ञानम् ( Padatha Vijñnam): [Credits: 4]**

**Course Outline:**

- Introduction: structure of the ancient Indian knowledge systems: veda, vedanga, upaveda, darsana, purana, itihasa
- The Proof Theory: प्रमा vs भ्रम, प्रमातृ-प्रमेय-प्रमाण-व्यवहार leading to त्रिपुटी

ज्ञान. The notion of a प्रमाण, various प्रमाणs, how to establish the validity of a प्रमाण

• The दर्शनs: the six आस्तिक दर्शनs (न्याय-वैशेषिक, सांख्य-योग, पूर्व मीमांसा-उत्तरमीमांसा or वेदान्त ). Elements of बौद्ध, जैन and चार्वाक दर्शनs .

• The प्रमेयs and their treatment in various दर्शनs: the पञ्चमहाभूतs, दिक्, काल, इन्द्रियs मनस्, बुद्धि, आत्मा.

• Discussions, implications to selected disciplines such as language technology and आयुर्वेद ।

### Reading Material:

1. Outlines of Indian Philosophies by M. Hiriana - Motilal Banarasidas, New Delhi
2. Tarkasangraha: Annambhatta- Swami Virupakshananda (Tr.), Sri Ramakrishna Math, Chennai

### Title:

**2.3 SK811: Indian Grammatical Theories: Credits: 4**

**Course Outline:** The focus of this course will be to introduce the the 'कारक' and 'समास' related सूत्रs from अष्टाध्यायी

### Introduction:

At the end of the course, students should have a good grasp of the 'कारक' system and should be in a position to apply the कारक system to different Indian languages. Similarly the students should have good grasp of समास, and should be able to tag any Sanskrit text for समास as well as कारकs independently.

### Reading Material:

1. The Astadhyayi Of Panini, 6 Vols, Rama Nath Sharma, Munshiram Manoharlal Publishers Pvt Ltd, New Delhi,2002
2. Patañjali's Vyākaraṇa-mahābhāṣya (Volume 9), Ed. Shivram Dattatray Joshi and J. A. F. Roodbergen, Centre of Advanced Study in Sanskrit, University of Poona, 1986
3. The Astadhyayi of Panini, (vol. 1 to 13), Joshi and J. A. F. Roodbergen, Sahitya Academy,
4. Mahabhasyam with Hindi commentary, Yudhisthir Mimamsaka, Ramlal Kapoor Trust, Sonipat, Haryana
5. Astadhyayi sutrapatha, Pt. Brahmadata Jijñāsu, Ramlal Kapoor Trust, Sonipat, Haryana, 2003

### Title:

**2.4 SK812: Topics in Natural Language Processing : [Cred-its: 4]**

### Introduction:

At the end of this course the students should be able to assess our traditional linguistic resources vis-a-vis the modern linguistic resources, also compare the relevance of fundamental principles and concepts in Indian traditional theories to the modern languages.

1. Introduction to NLP
2. Finite State Automata
3. Word Generators and Analysers

4. Local Word Grouper and Chunkers
5. Paninian Parser
6. Lexical Resources: with special refernce to their content, structure and purpose.  
Resources built in Indian Tradition: nirukta, nighantu, kosas such as Amarakosa, vacaspatyam, etc.  
Modern resources: WordNet, FrameNet, VerbNet
7. Generation

**Reading Material:**

1. NLP: A Paninian Perspective by Akshar Bharati, Vineet Chaitanya, Sangal, Prentice Hall of India, 1995
2. Speech and Language Processing By Daniel Jurafsky and James H Martin
3. Relevant research papers in the field of Machine Translation, Natural Language Processing, Computational Linguistics, Sanskrit Computational Liguistics, etc.

**Title:**

**2.5 SK813: Indian and Western logical systems: [Credit:4]**

**Course Outline:**

Technical Language of नव्यन्याय and Introduction to Symbolic Logi

**Reading Material:**

1. Symbolic Logic by Copi
2. विषयतावाद by V.N. Jha, CASS Publication, Pune
3. नव्य न्याय क पारिभाषिक शब्द, बलिराम शुक्ल
4. माथुरी पञ्चलक्षणी, बदरीनाथ शुक्ल, रामलाल कपूर ट्रस्ट, सोनिपत

**Title:**

**2.6 SK814: Special readings in नव्यन्याय : [Credit: 4]**

**Reading Material:**

**Recommended Books**

व्युत्पत्तिवादः, शक्तिवादः, शब्दशक्तिप्रकाशः etc.

**Title:**

**2.7 SK815: Indian Theories of meaning : [Credit: 4]**

**Course Outline:**

शक्ति, अभिधा, लक्षणा, व्यञ्जना, शक्तिग्रह, प्रवृत्तिनिमित्त, शक्यतावच्छेदक, वाक्य, वाक्यार्थ, अन्वित-अभिधानवाद, अभिहित अन्वयवाद,

**Reading Material:**

1. Indian Theories of Meaning by Kunjuni Raja
2. अर्थविज्ञान by Kapiladeva Dvivedi
3. Bhartrhari's Vakyapadiyam by K.A. Subramani Iyar, Motilal Banarasidas

4. शब्दबोधमीमांसा, NSR Tatacharya, IFP, Pondichery
5. Artha Meaning, Jonardan Ganeri, oxford University Press.

**Title:**

**2.8 SK816: Introduction to Linguistics: [Credit: 4 ]**

**Introduction:**

The goal of this course is to introduce the students to modern linguistics so that they are comfortable in reading and understanding the latest research literature in the field of computational linguistics.

**Course Outline:**

- Phonology
- Phonemics
- Morphology
- Syntax
- Semantics and Pragmatics
- Context Free Grammar
- Tree Adjoining Grammar

**Reading Material:**

- Linguistics: An Introduction – Andrew Radford
- Various online tutorials on specific topics

**Title:**

**2.9 SK821 Caraka Samhita : [Credit: 4]**

**Course Outline:**

- चिकित्सा स्थान : 30 adhyayas

**Reading Material:**

- Translation by Prof.P.V.Sharma, Chaukhamba Orientalia, Varanasi, 2001
- Translation by Prof.Srikantha murthy, Chaukhamba Orientalia, varanasi 2001
- Translation by Prof.Srikantha murthy, Chaukhamba Orientalia, Varanasi, 2007

**Title:**

**2.10 SK822 Suśruta saṃhita : [Credit: 4]**

**Course Outline:**

- शरीरस्थानम् : 10 adhyayas

**Reading Material:**

- Translation by Prof.P.V.Sharma, Chaukhamba Viswabharati, Varanasi, 2008
- Translation by Prof.Srikantha Murthy, Chaukhamba Orientalia, Varanasi, 1991

**Title:**

**2.11 SK823 Aṣṭāṅga hṛdayam : [Credit: 4]**

**Course outline**

- sūtra sthāna : 30 adhyayas

**Reading Books:**

- Harishastri Paradkar (Ed.), Krishnadas Academy, Varanasi, 2002
- Translation by Prof.Srikantha Murthy,, Chaukhamba Krishnadas Academy, Varanasi, 1984

**Title:**

**2.12 SK824 Mādhava nidānam : [Credit: 4]**

**Course Outline:**

- nidāna sthāna

**Reading Material:**

- madhava nidana with madhukoṣa commentary, G.J. Mullenbeld (Tr.), MLBD, New Delhi
- K.R.L. Gupta(Tr.), MLBD, New Delhi, 1987

**Title:**

**SK825 Laghu Siddhanta Kaumudi: [Credit: 4]**

**Course outline:**

- संज्ञा, सन्धि, कारक, कृत्, and तद्धित प्रकरणs

**Reading Books:**

- Laghu Kaumudi by J.R. Ballantyne, MLBD, New Delhi, 2001

**Title:**

**2.14 SK826 Ayurveda Hitopadesa/vaidyakiya sahityam: [Credit: 4]**

**Course outline:**

- Selected portions

**Reading Material:**

- Dr. B.Ramarao and Dr. PV.Totadri Nathan, Sree Sai Ram Ayurvedic College, Chennai, 2004

**Title:**

**2.15 SK827 Rasavaisesika : [Credit: 4]**

**Course outline:**

- First 4 chapters

**Reading Material:**

- Rasavaisesika by Dr. Raghavan Tirumalpad(Tr.), Ayurvaidyasala, Kottakal, Kerala, 2010

**Title:**

**2.16 SK830: Seminar [Credit: 4 ]**

**Introduction:**

This is a course where a student takes up readings in specialised subjects related to his/her