

Vidyasagar University

Curriculum for B.A (Honours) in Sanskrit [Choice Based Credit System]

Semester-IV

Course	Course Code	Name of the Subjects	Course Type/ Nature	Teaching Scheme in hour per week			Credit	Marks
				L	T	P		
CC-8		C8T: Indian Epigraphy, Paleography and Chronology	Core Course - 8	5	1	0	6	75
CC-9		C9T: Modern Sanskrit Literature	Core Course - 9	5	1	0	6	75
CC-10		C10T: Sanskrit and World Literature	Core Course - 10	5	1	0	6	75
GE-4		TBD	Generic Elective- 4				6	75
SEC-2		SEC2T: Machine Translation: Tools and Techniques Or Evolution of Indian scripts Or Sanskrit Meter and Music	Skill Enhancement Course-2	1	1	0	2	50
Semester Total							26	350

L=Lecture, T= Tutorial, P=Practical, CC = Core Course, GE= Generic Elective, SEC = Skill Enhancement Course, TBD = to be decided

Generic Elective (GE)(Interdisciplinary) from other Department.

Modalities of selection of Generic Electives (GE): A student shall have to choose **04** Generic Elective (GE1 to GE4) strictly from **02** subjects / disciplines of choice taking exactly **02** courses from each subjects of disciplines. Such a student shall have to study the curriculum of Generic Elective (GE) of a subject or discipline specified for the relevant semester.

List of the Core Course (CC) and Electives

Core Course (CC)

CC-8: Indian Epigraphy, Paleography and Chronology

CC-9: Modern Sanskrit Literature

CC-10: Sanskrit and World Literature

Skill Enhancement Course(SEC)

SEC-2: Machine Translation: Tools and Techniques

Or

SEC-2: Evolution of Indian scripts

Or

SEC-2: Sanskrit Meter and Music

Generic Electives (GE)

GE-4: Basic Principles of Indian Medicine System (Ayurveda)

Or

GE-4: Computer Applications for Sanskrit

Or

GE-4: Nationalism and Indian Literature

Core Course (CC)

CC-8: Indian Epigraphy, Paleography and Chronology

Credits 06

CC8T: Indian Epigraphy, Paleography and Chronology

Course Contents:

Prescribed Course:

Section 'A' Epigraphy

Section 'B' Paleography

Section 'C' Study of selected inscriptions

Section 'D' Chronology

**Section 'A'
Epigraphy**

- Unit: I** Introduction to Epigraphy and Types of Inscriptions
- Unit: II** Importance of Indian Inscriptions in the reconstruction of Ancient Indian History and Culture
- Unit: III** History of Epigraphical Studies in India
- Unit: IV** History of Decipherment of Ancient Indian Scripts (Contribution of Scholars in the field of epigraphy): Fleet, Cunningham, Prinsep, Buhler, Ojha, D.C.Sircar.

**Section 'B'
Paleography**

- Unit: I** Antiquity of the Art of Writing
- Unit: II** Writing Materials, Inscribers and Library
- Unit: III** Introduction to Ancient Indian Scripts.

Section 'C'
Study of selected inscriptions

Unit: I	Aśoka's Giranāra Rock Edict-1
	Aśoka's Sāranātha Pillar Edict
Unit: II	Girnāra Inscription of Rudradāman
Unit: III	Eran Pillar Inscription of Samudragupta
	Mehrauli Iron Pillar Inscription of Candra
Unit: IV	Delhi Topra Edict of Bīsaladeva

Section 'D'
Chronology

Unit: I	General Introduction to Ancient Indian Chronology
Unit: II	System of Dating the Inscriptions (Chronograms)
Unit: III	Main Eras used in Inscriptions - Vikrama Era, Śaka Era and Gupta Era

Recommended Books/Readings:

1. अभिलेख—मंजूषा, रणजीत सिंह सैनी, न्यूभारतीय बुककार्पोरेशन, दिल्ली, 2000.
2. उत्कीर्णलेखपञ्चकम्, ज्ञा बन्धु, वाराणसी, 1968.
3. उत्कीर्णलेखस्तबकम्, जियालाल काम्बोज, ईस्टर्न बुकलिकर्स, दिल्ली.
4. भारतीय अभिलेख, एस.एस. राणा, भारतीय विद्याप्रकाशन, दिल्ली, 1978.
5. भारतीय प्राचीन लिपिमाला, गौरीशंकरहीराचन्द ओझा, अजमेर, 1918.
6. Select Inscriptions (Vol.I) - D.C. Sircar, Calcutta, 1965.
7. नारायण, अवध किशोर एवं ठाकुरप्रसाद वर्मा : प्राचीनभारतीय लिपिशास्त्र और अभिलेखिकी, वाराणसी, 1970.
8. पाण्डे, राजबली : भारतीय पुरालिपि, लोकभारती प्रकाशन, इलाहाबाद, 1978.
9. ब्यूलर, जॉर्ज : भारतीय पुरालिपि शास्त्र, (हिन्दीअनु०) मङ्गलनाथ सिंह, मोतीलाल बनारसीदास, दिल्ली, 1966.
10. मुले, गुणाकर : अक्षरकथा, प्रकाशनविभाग, भारतसरकार, दिल्ली, 2003.
11. राही, ईश्वरचन्द : लेखनकला का इतिहास (खण्ड 1—2), उत्तरप्रदेश हिन्दीसंस्थान,

लखनऊ, 1983.

12. सरकार, डी.सी. : भारतीय पुरालिपिविधा, (हिन्दीअनु०) कृष्णदत्त वाजपेयी, विधानिधि प्रकाशन, दिल्ली, 1996.
13. सहाय, शिवस्वरूप : भारतीय पुरालेखों का अध्ययन, मोतीलाल बनारसीदास, दिल्ली. Dani, Ahmad Hasan : *Indian Paleography*, Oxford, 1963.
14. Pillai, Swami Kannu & K.S. Ramchandran : *Indian Chronology (Solar, Lunar and Planetary)*, Asian Educational Service, 2003.
15. Satyamurty, K. : *Text Book of Indian Epigraphy*, Lower Price Publication, Delhi, 1992.

CC-9: Modern Sanskrit Literature

Credits 06

CC9T: Modern Sanskrit Literature

Course Contents:

Prescribed Course:

Section 'A'	Mahākāvya and Charitakāvya
Section 'B'	GadyaKāvya and Rūpaka
Section 'C'	GītiKāvya and Other genres
Section 'D'	General Survey of Modern Sanskrit Literature

Section 'A'

Mahākāvya and Charitakāvya

Unit: I	SvātantryaSambhavam (RevaprasadaDwivedi) Canto 2, verses 1-45 Bhimāyanam (Prabha Shankar Joshi) Canto X. verses 20-29; Canto - XI. Verses 13-20 & 40-46.
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Section 'B'

Gadya and Rūpaka

Unit: I	Śatparvikā (Abhirāja Rajendra Mishra)
Unit: II	ŚārdūlaŚakatam (Virendra Kumar Bhattacharya)

Section 'C'

Gitikāvya and Other genres

Unit: I	Bhatta Mathurna Nath Shastri (Kundaliyān, BacchuLal Avasthi Jñāana (Kaete, Kva Yataste), SriñivasaRath (Katamā Kavītā) etc
Unit: II	Hariram Acharya (Sankalpa Gitih) ; Pushpa Dikshit (Bruhi kosminYuge..) RadhaVallabhTripathi DhivaraGitih (Naukamihasaramsaram...);
Unit III	Harshdev Madhava Haiku- Snanagrihe, vedanā, mriyuh1, mriyuh 2; khanih; shatāvadhāni R. Ganesh (kavi-viṣādah, varṣāvibhūtiḥ

Section 'D'

General Survey

Unit 1	Pandita Kshama Rao, P.K. Narayana Pillai, S. B. Varnekar, ParmanandShastri, Reva Prasad Dwivedi
Unit 2	Janaki VallabhShastri, Ram Karan Sharma, Jagannath Pathak, S. Sunderrajan, Shankar Dev Avatare
Unit 3	Haridas SiddhantaVagish, Mula Shankar M. Yajnika, Mahalinga Shastri, Leela Rao Dayal, YatindraVimal Chowdhury, Virendra Kumar Bhattacharya

Recommended Books:

1. मिश्र अभिराज राजेन्द्र, कल्पवल्ली (समकालीनसंस्कृतकाव्यसंकलना)—साहित्य अकादमी, 2013
2. प्रभाशंकर जोशी—भीमायनम्, शारदा गौरव ग्रन्थमाला, पुणे
3. त्रिपाठी राधावल्लभ—नवस्पन्दः, मध्य प्रदेश हिन्दीग्रन्थ अकादमी
4. त्रिपाठी राधावल्लभ—आयतिः, राष्ट्रिय संस्कृत संस्थान, दिल्ली.

5. आधुनिकसंस्कृत—साहित्य—संचयन— (सम्पा०) गिरीश चन्द्र पन्त, विधानिधि प्रकाशन, दिल्ली, 2008.
6. तदेव गगनं सैव धरा(काव्यसंग्रह) —श्रीनिवासरथविरचित, राष्ट्रिय संस्कृत संस्थान, दिल्ली.
7. विंशशताब्दी—संस्कृत—काव्यामृतम् — (संक०) अभिराज राजेन्द्रमिश्र (भाग—1)
8. उपाध्याय, रामजी—आधुनिकसंस्कृतनाटक, चौखम्बासुरभारती प्रकाशन, वाराणसी, 1996.
9. त्रिपाठी, राधावल्लभ—संस्कृतसाहित्य ०: बीसवीं शताब्दी, राष्ट्रिय संस्कृतसंस्थान, दिल्ली, 1999.
10. भार्गव, दयानन्द—आधुनिकसंस्कृतसाहित्य, राजस्थानी ग्रन्थागार, जोधपुर, 1987.
11. द्विवेदी, मीरा —आधुनिक संस्कृत महिला नाटककार, परिमल पब्लिकेशन्स, दिल्ली, 2000.
12. रुचि कुलश्रेष्ठ—बीसवीं शताब्दी का संस्कृतलघुकथासाहित्य, राष्ट्रिय संस्कृतसंस्थान, दिल्ली, 2008.
13. शास्त्री, कलानाथ—आधुनिक काल का संस्कृत गद्य—साहित्य, राष्ट्रिय संस्कृतसंस्थान, दिल्ली, 1995.
14. शुक्ल, हीरालाल—आधुनिकसंस्कृतसाहित्य, रचनाप्रकाशन, इलाहाबाद, 1971.
15. Joshi, K.R. & S.M. Ayachuit ² *Post Independence Sanskrit Literature*, Nagpur, 1991.
16. Prajapati, Manibhai K. ² *Post Independence Sanskrit Literature: A Critical Survey*, Patna, 2005.
17. UshaSatyavrat *Sanskrit Dramas of the Twentieth Century*, Mehar Chand Lachmandas, Delhi, 1987.
18. Dwivedi Rahas Bihari – AdhunikMahakāvya Samikshanam
19. Tripathi RadhaVallabh– Sanskrit SahityaBeesaveenShatabdi , 1999, Delhi
20. Musalgaonkar Kesava Rao – Adhunik Sanskrit KāvyaParampara, 2004
21. Naranga, S.P. – KalidasaPunarnava,
22. Upadhyaya, Ramji–Adhunik Sanskrit Natak, Varanasi

CC-10: Sanskrit and World Literature

Credits 06

CC10T: Sanskrit and World Literature

Course Contents:

Prescribed Course:

- Section 'A'** Survey of Sanskrit Literature in the World
- Section 'B'** Upaniṣads and Gītā in World Literature
- Section 'C'** Sanskrit Fables in World Literature
- Section 'D'** Rāmāyaṇa and Mahābhārata in South East Asian Countries
- Section 'E'** Kālidāsa's Literature in World Literature
- Section 'F'** Sanskrit Studies across the World

Section 'A'

Survey of Sanskrit Literature in the World

- Unit: I** Vedic cultural elements in ancient Eastern and Western societies.
- Unit: II** Presence of Sanskrit words in the World languages.
- Unit: III** General survey of the Classical Sanskrit Literature in the Eastern and Western literature.

Section 'B'

Upaniṣads and Gītā in the West

- Unit: I** Dara Shikoh's Persian Translation of Upanisads and their Influence on Sufism, Latin translation and its influence on Western thought
- Unit: II** Translation of the Gītā in European languages and religio-philosophical thought of the west.

Section 'C'
Sanskrit Fables in World Literature

Unit: I Translation of Pañcatantra in Eastern and Western Languages.
Translation of Vetālapañcavimśatikā, Simhāsanadvātriṃśikā and Śukasaptati in Eastern

Unit: II Languages and Art.

Section 'D'
Rāmāyaṇa and Mahābhārata in South Eastern Asia

Unit: I Rāma Kathā in south eastern countries

Unit: II Mahābhārata stories as depicted in folk cultures of SE Asia

Section 'E'
Kālidāsa in the West

Unit: I English and German translation of Kālidāsa 's writings and their influence on western literature and theatre.

Section 'F'
Sanskrit Studies across the World

Unit: I i. Sanskrit Study Centers in Asia
ii. Sanskrit Study Centers in Europe
iii. Sanskrit Study Centers in America

Recommended Books/Readings:

1. The Bhagavad Gita and the West: The Esoteric Significance of the Bhagavad Gita and Its Relation to the Epistles of Paul", by Rudolf Steiner, p. 43.
arisebharat.com/2011/10/22/impact-of-bhagvad-gita-on-west/
2. AWAKENING - Google Books Result.
3. Ben-Ami Scharfstein (1998), A Comparative History of World Philosophy: From the Upanishads to Kant, State University of New York Press, ISBN 978-0791436844, page 376.
4. Bhagavad Gita - World Religions
5. Edgerton, Franklin (1924), *The Pañcatantra Reconstructed* (Vol.1: Text and Critical Apparatus, Vol.2 : Introduction and Translation), New Haven, Connecticut: American Oriental Series. Volumes 2-3.

en.wikipedia.org/wiki/Influence_of_Bhagavad_Gita

6. Banarji, Suresh Chandra- 'Influence of Sanskrit out side India, A Companion to Sanskrit Literature, MLBD, 1971.
7. Excerpt from Wood's 2008 update of *Kalila and Dimna- Fables of Friendship and Betrayal*.
8. Falconer, Ion Keith (1885), *Kalilah and Dimnah or The Fables of Bidpai*, Cambridge University Press, Amsterdam, 1970.
9. Hertel, Johannes(1908-15), *The Pañcatantra : a collection of ancient Hindu tales, in the recension called Pañcākhyānaka*, and dated 1199 A.D., of the Jaina monk, Pūrṇabhadra, critically edited in the original Sanskrit, Harvard Oriental Series Volume 11,12,13, 14.
10. *History of Sanskrit Literature*, A Berriedale Keith, Motilal Banarsidas Publishers Pvt. Limited, India, 1993.
11. *History of the Miration of Pañcatantra*.
12. <http://en.wikipedia.org/wiki/Panchatantra>".
<https://books.google.co.in/books?isbn=8184002483>
13. Ibn al- Muqaffa, Abd'allah, *Calila e Dimna*, Eds. Juan Manuel Cacho Blecua and María Jesus Lacarra, Madrid: Editorial Castalia, 1984.
14. Ibn al- Muqaffa, Abdallah, *Kalilah et Dimnah*, Ed. P. Louis Cheiko. 3 ed. Beirut: Imprimerie Catholique, 1947.
15. Impact of Bhagvad Gita on West | Arise Bharat
16. [Influence of Bhagavad Gita - Wikipedia, the free encyclopedia](#)
17. Jacobs, Joseph (1888), *The earliest English version o the Fables of Bidpai* , London.
18. James A. Hijiya, "The Gita of Robert Oppenheimer" Proceeding of the American Philosophical Society, 144, no. 2 (Retrieved on 27 February 2011).
19. कालिदास ग्रन्थावली, सम्पा. रेवा प्रसाद द्विवेदी, काशी हिन्दू विश्वविद्यालय, वाराणसी, 1986.
20. रमेश भारद्वाज — नवजागरण एवं स्वतन्त्रता आन्दोलन में उपनिषदों की भूमिका, विधानिधि, दिल्ली
21. Kāśīnāth Pāṇḍuraṅga Paraba, ed. (1896), *The Pañcatantra of Viṣṇuśarman, Tukārām Jāvajī*, <http://books.google.com/-id=K71WAAAAYAAJ->, Google Books.
22. Katchbull, Rev. Wyndham (1819), *Kalila and Dimna or The Fables of Bidpai*, Oxford, (Translated from Silvestre de Stacy's laborious 1816 collation of different Arabic manuscripts)
23. Mahulikar, Dr. Gauri, *Effect of Ramayana On Various Cultures And Civilisation*, Ramayana Institute.
24. Mark B. Woodhouse (1978), [Consciousness and Brahman-Atman](#), *The Monist*, Vol. 61, No.1, *Conceptions of the Self: East & West* (January, 1978), pages 109-124.
25. Neria H. Hebbber, *Influence of Upanishads in the West*, Boloji.com. Retrieved on : 2012-03-02.
26. Olivelle, Patrick (2006), *The Five Discourses on Worldly Wisdom*, Clay Sanskrit Library.
27. Pañcatantra, <http://en.wikipedia.org/wiki/Panchatantra>, retrieved on Feb 1, 2008.

28. Pandit Guru Prasad Shastri (1935), *Pañcatantra with the commentary Abhinavarajalaxmi*, Benares: Bhargava Pustakalaya.
29. Patrick Olivelle (2014), *The Early Upanishads*, Oxford University Press, ISBN 978-0195124354, page 12-14.
30. Rajan, Chandra (transl.) (1993), *Viṣṇuśarma: The Pañcatantra*, London : Penguin Books, ISBN-9780140455205-(reprint : 1995) (also from the North Western Family text.
31. Rohman, Todd (2009). "The Classical Period". In Watling, Gabrielle, Quay, Sara.
32. S Radhakrishnan, *The Principal Upanishads* George Allen&Co., 1951, pages 22, Reprinted as ISBN 978-8172231248
33. "The Gita of J. Robert Oppenheimer" by JAMES A. HIJYA, Professor of History, University of Massachusetts Dartmouth (PDF file)
34. *The Pañcatantra*, Viṣṇuśarma, translated from Sanskrit with an Introduction by Chandra Rajan, Penguin Books, India, 1993.
35. Valmiki's Ramayana illustrated with Indian miniatures from the 16th to the 19th Century 2012, Editions Diane de Selliers, ISBN 9782903656168
36. Video of London 2009 ICR Illustrated Lecture on the Westward Migration of Panchatantra from India.
37. Viṣṇuśarma, http://en.wikipedia.org/wiki/Vishnu_Sarma, retrieved on Feb 1, 2008.
38. Wilkinson (1930), *The Lights of Canopus described by J V S Wilkinson*, London: The studio.
39. Winternitz, M. *Some Problems of Indian Literature* –Munshiram Manoharlal, Delhi, 1978. www.comparativereligion.com/Gita.html

Skill Enhancement Course (SEC)

SEC-2: Machine Translation: Tools and Techniques

Credits 06

SEC2T: Machine Translation: Tools and Techniques

Course Contents:

Prescribed Course

Section 'A' Theoretical Concepts of Machine Translation

Section 'B' Survey of Machine Translation

Section 'C' Machine Translation (MT) Approaches

Section 'D' Challenges in Machine Translation

Section 'A'

Theoretical Concepts of Machine Translation

Unit: I

Human vs Computer translation of languages.
Basics of Machine Translation, Tools and
Techniques of Machine Translation, Source vs
Target Language

Section 'B'

Survey of Machine Translation

Unit: I

Survey of Machine Translation Systems, List of
research laboratories for machine translation

Section 'C'

Machine Translation (MT) Approaches

Unit: I

Rule Base MT: Transfer-based, Interlingual and
Dictionary Based, Statistical MT, Example Based
MT,

Hybrid MT

Section 'D'

Challenges in Machine Translation

Unit: I

Ambiguity and Acceptability

Recommended Books/Readings:

1. Dorr, B J, Machine Translation – a view from Lexicon
2. Sergei Nirenburg, H. L. Somers, Readings in Machine Translation, MIT Press (MA)
3. Philipp Koehn, Statistical Machine Translation, Cambridge University Press.
4. Sergei Nirenburg, Jaime Carbonell, Masaru Tomita, Editors: Kenneth Goodman, Machine Translation: A Knowledge-Based Approach, Morgan Kaufmann Publishers Inc. San Francisco, CA, USA, 1994
5. Chandra, Subhash and Jha, GN. Computer Processing of Nominal Inflections in Sanskrit: Methods and Implementations, CSP, UK, 2012.
6. Dan Jurafsky, James H. Martin, 2000, Speech and Natural Language Processing, Prentice Hall.
7. Sanskrit Computational Linguistics symposium 1-2: Springer Verlag LNCS 5402 G Huet, A Kulkarni and P Scharf (eds), Proceedings of the 1st and 2nd International Symposium, 2009.
8. Sanskrit Computational Linguistics symposium 3: Springer Verlag LNCS 5406 A Kulkarni, G Huet (eds), Proceedings of the 3rd International Symposium, Jan 15 - 17, 2009, Hyderabad.
9. Grishman, R., Computational Linguistics: An introduction, Cambridge University Press, 1986.
10. Sergei Nirenburg, Harold L. Somers and Yorick A. Wilks, "Readings in Machine Translation" MIT Press. 2003.
11. Teacher's notes and selected research paper suggested by teachers.
12. Important E-Content suggested by teacher.
13. Amba Kulkarli, Machine translation activities in India: A survey, In proceedings of workshop on survey on Research and Development of Machine Translation in Asian Countries, Thailand, May 13-14, 2002.

Or
SEC-2: Evolution of Indian scripts

Credits 06

Course Contents:

Prescribed Course:

Section 'A'

Section 'B'

Unit-Wise Division

Section 'A'

- Unit: I**
1. Antiquity of writing in India
 2. Sign & symbols - pre-scripts
 3. Early Brāhmī and Kharoshthi Scripts
 4. Indus Valley script - Introduction

Section 'B'

- Unit: I**
1. Types/Kinds of the Brāhmī script by 400 A.D.
 2. Transition to early modern Indian scripts
 3. Causes of variation in the Brāhmī script

Recommended Books/Readings:

1. Buhler, G. : Indian Paleography, 1959
i. : On the origin of the Indian alphabet & numerals
2. Burnell, A.C. : Elements of South Indian Paleography, 1878.
3. Dani, A.H. : Indian Paleography, 1963
4. Diringer, David : The Alphabet (Reprint) 1962
5. Gelb, I. J. : A study of writing, 1963
6. Sircar, D.C. : Indian Epigraphy, 1965
7. Upasak, C.S. : History & Paleography of Mauryan Brāhmī script, 1960
8. Verma, T.P. : Paleography of Brāhmī script in North India, 1971.
9. गौ. ही. ओझा: भारतीय प्राचीन लिपिमाला
10. राजबली पाण्डेय : अशोक के अभिलेख, 1967

Or

SEC-2: Sanskrit Meter and Music

SEC2T: Sanskrit Meter and Music

Credits 06

Course Contents:

- | | |
|--------------------|--|
| Section 'A' | Brief Introduction to Chhandaḥśāstra |
| Section 'B' | Classification and Elements of Sanskrit Meter |
| Section 'C' | Analysis of Selected Vedic Meters and their musical rendering |
| Section 'D' | Analysis of Selected Classical Meters and their musical rendering |

Unit-Wise Division:

Section 'A'

Brief Introduction to Chhandaḥśāstra

Unit: I Brief Introduction to Chhandaḥśāstra

Section 'B'

Classification and Elements of Sanskrit Meter

Syllabic verse (akṣaravṛtta):

Unit: I Syllabo-quantitative verse (varṇavṛtta)

Quantitative verse (mātrāvṛtta)

Syllables: laghu and guru

Unit: II Gaṇa

Feet

Section 'C'

Analysis of Selected Vedic Meter and their Lyrical Methods (गान-पद्धति)

Definition, Example, Analysis and Lyrical Methods
of following Meters:

Unit: I

*gāyatrī, uṣṇika, anuṣṭupa, bṛhatī, paṃkti, triṣṭup
and jagatī*

Section 'D'

Analysis of Selected Classical Meter and their Lyrical Methods (गान-पद्धति)

Definition, Example, Analysis and Lyrical Methods
of following Meters:

Unit: I

*bhujāṅgaprayāta, sragviṇī, toṭaka, harigītikā,
vidyunmālā, anuṣṭupa, āryā, mālinī, śikharinī,
vasantatilakā, mandākrāntā, sragdharā and,
śārdūlvikrīḍita*

Suggested Books/Readings:

1. Brown, Charles Philip (1869). Sanskrit Prosody and Numerical Symbols Explained. London: Trübner & Co.
2. Deo, Ashwini. S (2007). The Metrical Organization of Classical Sanskrit Verse, (PDF). Journal of Linguistics 43 (01): 63–114. doi:10.1017/s0022226706004452.
3. Recordings of recitation: H. V. Nagaraja Rao (ORI, Mysore), Ashwini Deo, Ram Karan Sharma, Arvind Kolhatkar.
4. Online Tools for Sanskrit Meter developed by Computational Linguistics Group, Department of Sanskrit, University of Delhi: <http://sanskrit.du.ac.in>
5. धरानन्द शास्त्री (संपा.), केदारभट्ट विरचित वृत्तरत्नाकर, मोतीलाल बनारसीदास, दिल्ली, 2004

Generic Electives (GE)

GE-4: Basic Principles of Indian Medicine System (Ayurveda) Credits 06

GE4T: Basic Principles of Indian Medicine System (Ayurveda)

Course Contents:

Prescribed Course:

Section 'A'	Introduction to Indian Medicine System: Āyurveda
Section 'B'	Basic Principles of Āyurveda
Section 'C'	Dietetics, Nutrition and Treatments in Āyurveda
Section 'D'	Important Medicinal Plants and their based on Āyurveda

Section 'A'

Introduction to Indian Medicine System: Āyurveda

Unit: I	Definition of Āyurveda, Āyuh (Life), Śarīra (Body), Health, Aim of Āyurveda, Subject Matter of Āyurveda, Salient Features of Āyurveda, Concept of Health according to Āyurveda, Unique features of Āyurveda.
Unit: II	History of Āyurveda, Atharvaveda as an early source for medicinal speculations, Introduction to Major Texts (Suśrut Samhitā and Caraka Samhitā) and Authors (Suśruta and Caraka) and Aṣṭāṅga Hṛdayam, Aṣṭāṅga Saṅgraha of Vāgbhaṭa. Eight Components of Āyurveda (aṣṭāṅgaĀyurveda):
Unit: III	<ol style="list-style-type: none">1. Kāyçikitsā (General Medicine)2. Kaumārabhṛtya (Pediatrics)3. Śalya Tantra (Surgery)4. Śālākya-Tantra (Ent. and Ophthalmology)5. Bhūta Vidyā (Psychiatry Medicine).6. Viṣa Vijñāna (Toxicology).7. Rasāyana (Rejuvenates).8. Vajīkaraṇa (Aphrodisiac).

Section 'B'

Basic Principles of Āyurveda

- Unit: I**
1. **The Trigūṇas:** Sattva, Rajas and Tamas.
 2. **The Pañcamahābhūtas:** Ākāśa (Space), Vāyu (Air), Teja or Agni (Fire), Jala (Water) and Pṛthvī (Earth).
 3. **The Tridoṣas:** Vāta, Pitta and Kapha.
 4. **The Saptadhātus:** Rasa (fluid), Rakta (blood), Māmsa, Meda (fat), Asthi, Majjā and Śukra.
 5. **The Trayodosāgni:** Jatharāgni (gastric fire), Saptadhātvāgni and Pañcabhūtāgni.
 6. **The Trimalas:** Purīṣā (faeces), Mūtra (urine) and Sveda (sweat).

Āyurvedic understanding of lifestyle and concepts of preventive medicine.

Unit: II

Seasonal regimen & social conduct and its effect on health, Concepts of Prakṛti, Agni, and Kosta.

Svasta Vṛtta (Preventive Medicine) :

Understanding Health and Disease in Āyurveda

Unit: III

Diagnosis of illness: eight ways to diagnose illness, called Nāḍī (pulse), Mūtra (urine), Mala (stool), Jihvā (tongue), Śabda (speech), Sparśa (touch), Dṛk (vision), and Ākṛti (appearance).

Section 'C'

Dietetics, Nutrition and Treatments in Āyurveda

Unit: I

Āyurvedic understanding of nutrition and metabolism, Classification of Āhāra according to Āyurveda and Viruddhāhāra (incompatible diet) & role of diet.

Unit: II

Commonly used substances and their therapeutic properties and Pharmacology: Intro to basic principles of Āyurvedic pharmacology, Art and science of Āyurvedic Pharmacy and Understanding Āyurvedic Herbs and common formulations

Unit: III

Pañcakarma and Other Āyurvedic Specialty Treatments: Method and classification of treatments in Āyurveda, Pretreatment, Therapeutic vomiting (Vamana), Purgation Therapy, Enema (Basti), Nasal Administration – Nāsya, Blood Letting (RaktaMokṣa), Introduction and importance of Pañcakarma/Detoxification, Science and art of rejuvenation (Rasāyana and Vājīkaraṇa). Āyurvedic prenatal and postpartum care for healthy mothers and babies, Saṃskāra, care of infants and children.

Section 'D'

Important Medicinal Plants in Āyurveda

19 Medicinal Plants in Suśruta Saṁhitā: Tulsi, Haridrā, Sarpagandhā, Ghṛta Kumārī, Guggulu, Brāhmī, Āmalā, Aśwagandhā, Arjun Tree, Turmeric, Ceylon Hydrolea, Neema Plant, Lady Ferns, Blackberries, Pot Marigold, Camomile, Peppermint, Fenugreek and Aloe Vera.

Unit: I

4-Credit

Recommended Books/Readings:

1. Acharya, Srinivas, Panchakarma Illustrated, Chaukhamba SanskritPratishtana, Delhi, 2006.
2. V.B. Athavale, Basic Principles of Āyurveda, ChaukhambaSanskrit Pratishtan New Delhi, 2005.
3. Āyurveda Kā Saṅkṣipta Itihāsa, Hindi Sahitya Sammelan, Allahabad.
4. Bhagavan Dash, Vaidya, and Acarya Manfred M. Junius, A Handbook of Āyurveda, Concept Publishing Co., New Delhi, 1987.
5. Bhishagratna, KavirajKunj Lal, ed., translator. (2002). Sushruta Samhita Volumes I and II. Varanasi, India: Chowkhamba Sanskrit Series.
6. Charak Samhita E-text: <http://www.charakasamhita.com/>
7. <http://www.speakingtree.in/blog/medicinal-plants-from-ancient-india>
8. http://www.tkdI.res.in/tkdI/langdefault/ayurveda/Ayu_Principles.asp?GL=#q1
9. K. R. Srikantha Murthy, Illustrated Susruta Samhita, ChaukhambaOrientalia, 2012
10. M.S. Valiathan, An Introduction to Āyurveda Paperback, Universities Press (India) Private Limited, 2013
11. M.S. Valiathan, The Legacy of Suśruta, Universities Press, 2007
12. PriyaVrat Sharma, Essentials of Āyurveda: Sodasangahṛdayam, MotilalBanarsidass Publishers, 1999
13. Ravi DattaTripathi, Vāgbhata's Aṣṭāṅg-saṅgraha, ChowkhambaSanskrit Pratishtanam, Delhi., 2011.
14. ShanthaGodagama, The Handbook of Āyurveda, North Atlantic Books, 2004
15. Sharma, Priyavrit V., ed., translator. (1981-1994). Charaka Samhita, Vols. 1 - 4,Chaukhamba Sanskrit Series, Varanasi, India: Varanasi, India: Chowkhamba SanskritSeries.
16. Sharma, Ram Karan and Bhagawan Dash, Vaidya, eds., translators (1992 – 2000). CharakaSamhita Vols. 1 – 6. Varanasi, India.Chaukhamba Sanskrit Series.
17. Srikrishnamurthy, K.R. Srikantha, translator. (1991-1992). Vagbhata, AstangaHridayamVols. 1 and 2. Varanasi, India: Krishnadas Academy.
18. Srikrishnamurthy, K.R. Srikantha, translator. (2001). Sharangadhara Samhita: A treatise onĀyurveda. Varanasi, India: ChaukhambaOrientalia.
19. SusrutaSusruta (Author), Kunja Lal Bhishagratna, An English Translation of the Sushruta Samhita, Based on Original Sanskrit Text. Edited and Published by KavirajKunja Lal Bhishagratna. with a Full ... Notes, Comperative Views, Index, Glossarv. Nabu Press. 2012

Or

GE-4: Computer Applications for Sanskrit

Credits 06

GE4T: Computer Applications for Sanskrit

Course Contents:

Section A	Interactive Sanskrit Teaching Learning Tools
Section B	Standard for Indian Languages (Unicode)
Section C	Text Processing and Preservation Tools
Section D	Optical Character Reader

Section A

Interactive Sanskrit Teaching Learning Tools

Unit: I	Interactive Sanskrit Learning Tools, Introduction, Why Interactive Tools for Sanskrit? E-learning, Basics of Multimedia, Web based tools development HTML, Web page etc., Tools and Techniques
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Section B

Standard for Indian Languages (Unicode)

Unit: I	Unicode Typing in Devanagari Scripts, Typing Tools and Software
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Section C

Text Processing and Preservation Tools

Unit: I	Text Processing, Preservation, Techniques, Text Processing and Preservation, Tools and Techniques, Survey
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Section D

Optical Character Reader

Unit: I

Optical Character Reader
(OCR), Applications of OCR
for Sanskrit and Indian
Languages, Tool and
Techniques, Survey

Suggested Readings:

1. Bharti A., R. Sangal, V. Chaitanya, "NL, Complexity Theory and Logic" in Foundations of Software Technology and Theoretical Computer Science, Springer, 1990.
2. Tools developed by Computational Linguistics Group, Department of Sanskrit, University of Delhi, Delhi-110007 available at: <http://sanskrit.du.ac.in>
3. Basic concept and issues of multimedia:
<http://www.newagepublishers.com/samplechapter/001697.pdf>
4. Content creation and E-learning in Indian languages: a model:
http://eprints.relis.org/7189/1/vijayakumarjk_01.pdf
5. HTML Tutorial - W3Schools: www.w3schools.com/html
6. The Unicode Consortium: <http://unicode.org/>.

Or

GE-4: Nationalism and Indian Literature

Credits 06

GE4T: Nationalism and Indian Literature

Course Contents:

Prescribed Course:

Section 'A'	Concepts and Basic Features of Indian Nationalism
Section 'B'	Nationalism and Concept of 'Rāṣṭra' in Sanskrit Literature
Section 'C'	Rise of Indian Nationalism and Modern Indian Literature

Section 'A'

Concepts and Basic Features of Indian Nationalism

Unit: I
Definition of Indian Nation, Nature and Elements :
Meaning of Nation, Definitions in the light of Modern Political Science; Western Concept of Nation, Origin and Development of Nationalism in West; Constituent Elements of Nation; Different view regarding Nation and State; Indian Concept of Nation, Meaning, Etymology and Fundamental Elements in the light of Sanskrit Literature.

Unit: II

Definition of Nationality, **Nature and** Natonal Symbols
Meaning of Nationality, Definitions and Constituent Elements of Nationality; Essential Factors of Nationality:
1. National Intigration, 2. Patriotism, 3. Freedom, 4. Religious Tolerance 5. National Pride, 6. National Conciousness, 7. Citizenship.

National Symbols of India : 1. National Anthem- '*Jana Gana Mana*' 2.. National Song

'*Vande Mātaram*' 3..National Flag of India, 4. National Emblem '*Ashok Chakra*'.

Section 'B'
Nationalism and Concept of 'Rāṣṭra' in Sanskrit Literature

- Unit: I** Origin, Development and Concept of 'Rāṣṭra' in Sanskrit Literature Concept and Nature of Vedic 'Rāṣṭra' (*Atharvaveda*, 11.9.17; 12.1,1-12; *SuklaYajurveda*, 22.22); Five Elements of Vedic 'Rāṣṭra' (*Atharvaveda*, 12.1,1); Coronation Ceremony of Vedic King and its relation with Nation State 'Rāṣṭra' (*Śatapathabrāhmaṇa*, 51.1.8-13; 9.4.1.1-5); 'Rāṣṭra' in the Context of 'Saptāṅga' Theory of State (Kautilya's *Arthaśāstra*, 6.1, *Mahābhārata*, *Śāntiparva*, 56.5, *Śukranūti*, 1.61-62)
- Unit: II** Name, Geography and Features of 'Bhāratavarṣa' in Sanskrit Literature Different Views Regarding Name of 'Bhāratavarṣa' in Vedic and Paurāṇika Literature; Geography and Salient Features of 'Bhāratavarṣa' in *Viṣṇu Purāṇa* (2.3) Diversity and Geographical Unity of 'Bharatavarṣa' (*Valmīki Rāmāyaṇa*, *Kiṣkindhākāṇḍa*, chapters-46,47,48 ; *Raghuvamśa* of Kalidasa (fourth canto)

Section 'C'

Rise of Indian Nationalism and Modern Indian Literature

- Unit: I** Rise of **Indian Nationalism and Freedom Struggle Movement** : Major Factors which led to the Rise of Nationalist Sentiments in Modern Period with special reference to: 1. Western thought and education 2. Rediscovery of India's past 3. Socio-religious reform movements 4. Impact of contemporary National movements worldwide .Socio-Religious Nationalist thoughts of: 1. Swami Dayanand Saraswati, 2. Swami Vivekanand, 3. Bankim Chandra Chatopadhyay, 4. Mahatma Gandhi, 5. Dr. B. R. Ambedkar and 6. Vir Savarker. Freedom struggle movement and relevance of Gandhian thought in modern period with special reference to 'Grāma Svarāja', 'Satyāgraha', 'Ahimsā' and 'Svadeśi' movement.
- Unit: II** **Nationalism in Sanskrit Literature and Modern Indian Poetry :**

Nationalist Trends of Modern Sanskrit

Literature with special reference to

1. '*Satyāgrahagītā*' of Panditā Kṣamārāva;
2. '*Bhāratavijayanāṭakam*' of Mathura Prashad Dikshita;
3. '*Gāndhīcaritam*' of Charudeva Shastri;

4. '*Srisvāmivivekānandacaritam*' of Tryambaka Sharma Bhandarkar. (Ref. Book : Tiwari, Shashi, *Rashtriyata evam Bharatiya Sahitya*, pp.113-139)

Nationalistic thought in Modern **Hindi Poetry**: 1. Bhartendu Harishchandra, 2. Ramdhari Singh 'Dinkar', 3. Jayashankar Prasad., 4. Maithili Sharan Gupta, 5. Makhanlal Chaturvedi, 6. Subhadra Kumari Chauhan. (Ref. Book : Tiwari, Shashi, *Rashtriyata evam Bharatiya Sahitya*, pp.140-219)

Nationalistic thought in Modern Urdu Poetry: 1. Muhammad Iqbal (Taran-e- Hindi),

2. Firakh Gorakh Puri (Aya Madar-e- Hind), 3. Sagar Nizami (Taran-e- Vatana),

4. Afsar Merathi (Vatan Ka Rag), 5. Ali Sardar Jafari (Yah Hindostan), 6. Ezaz Siddiqui

(Nagm-e- Vatana).

(Ref. Book : Akhtar, Jaan Nisar, *Hindostan Hamara*, part-1. pp.49-86)

Recommended Books/Readings:

1. Kāne PV : History of Dharma Śāstra, Bhandarkar Oriental Research Institute, Pune
2. Pandey Rajbali: Hindu, Samskara, Motilal Banarasi Das, Delhi
3. काणे पांडुरंग वामन – धर्मशास्त्र का इतिहास, अनुवादक अर्जुन चौर्ण काश्यप, उत्तर प्रदेश हिंदी संस्थान
4. पाण्डेय राजबलि – हिन्दू संस्कार – चौखम्बा विद्याभवन, वाराणसी 1978
5. जोशी लक्ष्मण शास्त्री – धर्मकोष, व्यवहारकाण्ड, विवादपदानि (प्रथम भाग) प्राज्ञ पाठशाला, वाई, सतारा, महाराष्ट्र
6. Upadhyay, V. : a. : Select Inscriptions (Part - I)
: Prācīna Bhāratīya Abhilekha (Hindi)
7. Thapar, Romila : Asoka tathā Maurya Sāmrajya Kā Patana (Hindi)
8. Arthashastra of Kautilya—(ed.) Kangale, R.P. Delhi, Motilal Banarasidas 1965
9. Atharvaveda samhita (2 Vols)— (Trans.) R.T.H. Griffith, Banaras, 1896-97,

- 1968.
10. Mahabharata (7 Vols)— (Eng. Tr.) H.P. Shastri, London, 1952-59.
 11. Ramayana of Valmiki (3 Vols) — (Eng. Tr.) H.P. Shastri, London, 1952-59.
 12. Satapatha brahmana (3 Vols)— (Eng. trans. ed.) Jeet Ram Bhatt, E. B.L. Delhi, 2009.
 13. Visnu purana— (Eng. Tr.) H.H. Wilson, Punthi Pustak, reprint, Calcutta, 1961.
 14. कौटिलीय अर्थशास्त्र —हिन्दी अनुवाद —उदयवीर शास्त्री, मेहरचन्द लछमनदास, दिल्ली, 1968.
 15. महाभारत (1—6 भाग) — हिन्दी अनुवाद सहित, (अनु०) रामनारायण दत्त शास्त्री पाण्डेय, गीताप्रेस, गोरखपुर.
 16. यजुर्वेद— हिन्दी अनुवाद सहित, सातवलेकर, श्रीपाद दामोदर, पारडी
 17. विष्णुपुराण— हिन्दी अनुवाद सहित, (अनु०) मुनिलाल गुप्त, गीताप्रेस, गोरखपुर.
 18. शतपथब्राह्मण (1—5 भाग) (माध्यन्दिनीय शाखा) — सायणाचार्य एवं हरिस्वामी टीकासहित, दिल्ली, 1987.
 19. शुक्रनीति — हिन्दी अनुवाद, ब्रह्मशंकर मिश्र, चौखम्बा संस्कृत सीरीज, वाराणसी, 968.
 20. सत्याग्रहगीता— पण्डिता क्षमाराव, पेरिस, 1932.
 21. श्रीमद्वाल्मीकिरामायण — हिन्दी अनुवाद सहित, (सम्पा०) जानकी नाथ शर्मा, (1—2 भाग) गीताप्रेस, गोरखपुर.
 22. अख्तर, जान निसार (सम्पा०) —हिन्दोस्ताँ हमार (भाग—1), हिन्दुस्तानी बुक ट्रस्ट, मुंबई, 2006,
 23. कपूर, अनूप चन्द— राजनीतिविज्ञान के सिद्धान्त, प्रीमियर पब्लिशिंग हाउस, दिल्ली, 1967.
 24. गोस्वामी, योगेन्द्र (सम्पा०) — राष्ट्रीय एकता और भारतीय साहित्य, काशी अधिवेशन स्मृति ग्रन्थ, 2001.
 25. टंडन, कुमुद— महात्मागांधीपरक संस्कृत काव्य, ईस्टर्न बुक लिंकर्स, दिल्ली, 1991.
 26. तिवारी, मोहन चन्द —अष्टाचक्रा अयोध्या: इतिहास और परम्परा, उत्तरायण प्रकाशन, दिल्ली, 2006
 27. तिवारी, शशि— राष्ट्रीयता एवं भारतीय साहित्य, विधानिधि प्रकाशन, दिल्ली, 2007.
 28. तिवारी, शशि— संस्कृत साहित्य में राष्ट्रवाद और भारतीय राजशास्त्र, विधानिधि प्रकाशन दिल्ली, 2013.
 29. दीक्षित, हरिनारायण — संस्कृत साहित्य में राष्ट्रिय भावना ईस्टर्न बुक लिंकर्स, दिल्ली, 2006.