

MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WB
Syllabus of B. Sc. In Yoga
(Effective for 2020-2021 Admission Session)
Choice Based Credit System
140 Credit (3-Year UG) MAKAUT Framework
w.e.f 2020-21

2ND SEMESTER

Subject Type	Course Name	Course Code	Credit Distribution			Credit Points	Mode of Delivery			Proposed Moocs
			Theory	Practical	Tutorial		Offline	Online	Blended	
CC 3	Texts on Yoga	BSY 201	5	0	1	6	✓			As per MAKAUT Notification
CC 4	Yog-Abhyasa II	BSY(T) 202	4	0	0	6	✓			
		BSY 292	0	2	0					
GE 2	Students will have to select from the GE Basket					6			✓	
AECC 2	Environmental Science	BSY 265	2	0	0	2	✓			
Semester Credits						20				

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COURSE: TEXTS ON YOGA

CODE: BSY 201

COURSE OBJECTIVE:

The course is designed to provide an in-depth knowledge & understanding about the various modification of mind and the means of inhibiting them. To inculcate the essence of Samadhi pada, Sadhana Pada, Vibhuti pada and Kaivalya pada. Students will be able to develop an understanding about pre-requisites & principles of Hatha yoga, relationship between Patanjali and Raja yoga. Students will also be able to discern the concept of yoga in other yogic texts.

SI	Course Outcome	Mapped modules
1	Understand various modification of mind and the means of inhibiting them.	M1
2	Have an understanding about the essence of Samadhi and Sadhana Pada.	M1
3	Understand the essence of Vibhuti and Kaivalya pada.	M2, M3
4	Have an understanding about pre-requisites, principles about Hatha yoga.	M4
5	Understand the relationship between Shatkriyas And Pranayamas.	M5
6	Have an understanding about the Pratyahara, Nadanusandhana.	M6

Module Number	Content	Total Hours	%age of questions	Blooms Level (if applicable)	Remarks (If any)
Module 1	Samadhi Pada & Sadhana Pada.	10	20	1,2,3	
Module 2	Vibhuti Pada.	10	15	1,2,3	
Module 3	Kaivalya Pada.	10	15	1,2,3	
Module 4	Hatha Yoga Philosophy and Practices: Asanas, Bandhas Mudras.	10	15	1,2,3	
Module 5	Hatha Yogic Practices: Shatkriyas and Pranayamas.	10	20	1,2,3	
Module 6	Hatha Yogic Practices: Pratyahara & Nadanusandhana.	10	15	1,2,3	
		60	100		

TEXTS ON YOGA (PATANJALI'S YOGA SUTRAS & HATHA YOGA PRADIPIKA)

Sub Code: BSY 201

Credits: 5T+1L

MODULE 1:

A) Samadhi Pada.

- Concept of Samadhi according to Patanjali.
- Types and nature of Samadhi in Yoga Sutra: Samprajnata, Asamprajnata, Sabeerja and Nirbeeja Samadhi.
- Difference between Samapattis and Samadhi.
- Concept of Ishvara in Samadhi Pada.
- Different ways of cultivating the mind.

B) Sadhana Pada.

- Kriya-yoga, Theory of Kleshas.
- Nature of Drsta and Drsyas and means to eliminate the kleshas.
- Patanjali's view of pain & sufferings, fourfold strategy for overcoming sufferings.
- Ashtanga Yoga: Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana, and Samadhi.

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MODULE 2:

Vibhuti Pada.

- Introduction to dharana, dhyana, samadhi and samyama.
- Samyama on – parinama traya, knowledge of bhuta, rta and paricitta jnana.
- Samyama on – maitri, surya, Candra, nabhichakra, pratibha, hridaya, udana, samana and their benefits.
- Attainments of Divya srotra, Akasha Gamana, Bhutajaya, Anima Adi siddhis, Indriyajaya and Kayajaya.

MODULE 3:

Kaivalya Pada.

- Introduction to Siddhi, Jatyantara Parinama, Nirmana chitta, Karma, Vasana, Smriti and samskara.
- Support of Vasana, Guna and its' existence. Vastu.: Jnata, Ajnata of Vastu, Quality of ever known Purusha.
- Non-self-illumination of Buddhi and its' function. Dharmamegha Samadhi and infinite knowledge.
- Guna, Karma, Pratiprasava and Kaivalya.

MODULE 4:

A) Hatha Yoga: Its Philosophy and Practices.

- Hatha Yoga , its meaning, definition, aims and objectives, in Hatha Yoga.
- The origin of Hatha Yoga, Important Hatha Yogic Texts.
- Dos and Don'ts to be followed by the Hatha Yoga Practitioner, concept of Mata, concept of Mitahara, Pathya (conducive) and Apathya (non-conducive).
- Brief introduction to Great Hatha Yogis of Natha School and their contributions to Yoga with relationship between Hatha Yoga and Raja Yoga.

B) Hatha Yogic Practices: Asanas and Bandhas – Mudras.

- Yogasana: its definition, Salient features.
- Asanas in Hatha Yoga Pradipika and Gherandha Samhita: their techniques, benefits, precautions and importance in modern days.
- Bandhas and role of Bandhatrayas in Yoga Sadhana.
- Fundamental Mudras in HYP and G.S. - their techniques and benefits.

MODULE 5:

Hatha Yogic Practices: Shatkriyas & Pranayamas.

- Shat-kriyas in Hatha Yoga Pradipika, their techniques and precautions, role of Shodhan-kriyas in Yoga Sadhana and their importance in Modern day-to-day life.
- Pranayama – Yogic deep breathing, Concept of Puraka, Kumbhaka and Rechaka The concept of Prana, Kinds of Prana and Upa-pranas. Pranayama and its importance in Hatha Yoga Sadhana.
- Pranayama practices in Hatha yoga pradipika (HYP) and Gherandha Samhita (G.S.), their techniques, benefits and precautions.

MODULE 6:

Hatha Yogic Practices: Pratyahara, Nadasandhana.

- Concept of Pratyahara Gherandha Samhita- their techniques and benefits.

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- Types of Dharanas and their benefits in Gheranda Samhita.
- Types of Dhyanas and their benefits in Gheranda Samhita.
- Concept of Nada and Nadanusandhana in Hatha Yoga Pradipika.

REFERENCE BOOKS:

1. Swami Vivekananda: Rajayoga (Advaita Ashram, Calcutta, 2000).
2. Woods, J.H.: The Yoga System of Patanjali (M.L.B.D., Delhi, 1988)
3. Iyengar B.K.S.: Light on Yoga Sutras (New York, Schocken Books, 1994).
4. Rukmini T.S.: Yoga Vartika of Vijnanbhikshu (Tr.) Vol I,II,III & IV (Munshiram Manoharlal Pvt. Ltd. New Delhi)
5. Swami Omanandatirtha: Patanjala Yoga Pradeepa (Geeta Press, Gorakhpur, 1994)
6. Swami Anant Bharati: Patanjali Yoga Shasta- a study (Hindi) (Swami Keshwananda Yoga Sangthan, Delhi)
7. Swami Digambaraji and: Hatha Pradeepika of Svatmarama, Pt: Raghunatha Shastri (Kaivalyadhama, S.M.Y.M.Samiti, Lonavala, 1998)
8. Swami Muktibodhananda: Hatha Yoga Pradeepika, The light on Hatha Yoga (Bihar School of Yoga, Munger, 1985)
9. Burley, Mikel: Hatha Yoga, Its Context Theory and Practice (M.L.B.D. Delhi, 2000)
10. Burnier, Radha: Hathayoga Pradipika of Svatmarama (The Adyar Library publications, Chennai. 2000)
11. Swami Maheshanandaji and Others: Shiva Samhita (Kaivalyadhama, S.M.Y.M. Samiti, Lonavala, 1999)
12. Woodroffe, Sir John 6. Bharati, Veda: The Serpent power. (Ganesh & Company, Madras, 2000)
13. Bharati, Veda: Philosophy of Hatha Yoga (English) (Himalayan International Institute of Yoga Science and Philosophy, 1998, 2nd Rev. ed. Pennsylvania).
14. Mr Dwivedi: Nath Sampradaya of Hatha Yoga, Publications, Hindustani Academy, Allahabad, Utter Pradesh, 1950)
15. B. K. S. Iyengar: Light on Yoga.
16. Pattabi Jois: Yoga Mala.

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COURSE: YOG-ABHYASA – II

CODE: BSY 202

Credits- 4T+2P

COURSE OBJECTIVE:

The course is designed to provide an in-depth understanding and application of the Suryanamaskar techniques, the listed asanas & the kriyas along with thorough knowledge about the benefits, limitation and subtle points of each practice.

SI	Course Outcome	Mapped modules
1	Have an understanding about Suryanamaskar & its demonstration techniques.	M1
2	Have an understanding about yogasanas.	M2, M3, M4, M5
3	Have an understanding about kriyas.	M6
4	Explain and demonstrate the below mentioned yogasanas skillfully.	M2, M3, M4, M5
5	Explain and demonstrate the below mentioned kriyas skillfully.	M6
6	Explain the benefits, limitation and subtle points of each practice.	M1, M2, M3, M4, M5, M6

THEORY- BSY(T) 202

Module Number	Content	Total Hours	%age of questions	Blooms Level (if applicable)	Remarks (If any)
Module 1	Suryanamaskar	05	20	2,3,4	
Module 2	Listed Yogasanas	10	15	2,3,4	
Module 3	Listed Yogasanas	10	15	2,3,4	
Module 4	Listed Yogasanas	10	15	2,3,4	
Module 5	Listed Yogasanas	10	15	2,3,4	
Module 6	Kriyas	15	20	2,3,4	
		60	100		

PRACTICAL- BSY 292

CO	Blooms Level	Modules	%age of questions
CO1	2,3	M1	20
CO2	2,3	M2, M3, M4, M5	15
CO3	2,3	M6	15
CO4	2,3	M2, M3, M4, M5	15
CO5	2,3	M6	15
CO6	2,3,6	M1, M2, M3, M4, M5, M6	20
			100

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YOG-ABHYASA

CODE: BSY 202

Contact Hours / Week: 4T+2P

MODULE 01

Suryanamaskar

- Introduction to Suryanamaskar (The Sun Salutation)
- Technique of Suryanamaskar Practice.

MODULE 02

Asanas

- Tadasana
- Trikonasana
- Parivrtta Trikonasana
- Parshvakonasana
- Ardha Chandrasana
- Bhujangasana
- Shalabhasana
- Janu Shirasana
- Gomukhasana
- Vajrasana
- Veerasana
- Padmasana
- Siddhasana
- Sarvangasana

MODULE 03

Asanas

- Urdhva Dhanurasana
- Matsyasana
- Adhomukhaswanasana
- Paschimottasana
- Marichasana A, B, C
- Upavistha Konasana
- Ubhaya Hasta Padangustasana
- Parivrtta Janu Shirasana
- Ardha Matsyendrasana
- Halasana
- Karnapeedasana

MODULE 04

Asanas

- Parivrtta Parshvakonasana
- Prasaritha padottanasana
- Veerabhadrasana Series
- Ardha Baddha Padmotanasana
- Urdhva Mukha Swanasana
- Anjaneyasana
- Ustrasana

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- Eka Pada Raja Kapotasana
- Purva Uttanasana
- Sethubandhasana
- Ekapada Koudinya Series
- Baddha Konasana

MODULE 05

Asanas

- Vrksasana
- Utthita Hastha Padangustasana
- Natarajasana
- Garudasana
- Urdhva Prasaritha Ekapadasana
- Dhanurasana
- Kakasana
- Chaturanga Dandasana
- Sirsasana

MODULE 06

Kriyas

- Trataka
- Dhauti: Vastra Dhauti, Danda Dhauti.
- Neti: Jala Neti and Sutra Neti.
- Nauli: Madhyam Nauli, Vama Nauli, Dakshina Nauli and Nauli Kriya
- Kapalabhati: Vatkrama Kapalabhati, Shitkrama, and Vyutakarma Kapalabhati.
- Shankhprakhshalana: Laghu and Purna Shankhprakhshalana.

REFERENCE BOOKS:

1. Swami Satyananda Saraswati: Asana, Pranayama, Mudra, Bandha (Yoga Publications Trust, Munger, Bihar, India).
2. Swami Muktibodhananda Saraswati: Hatha Yoga Pradeepika, Yoga Publications Trust (Munger, Bihar, India).
3. Light on Yoga: B K S Iyengar.

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AECC 2- Environmental Science

Semester Credits- 2T

Course Objective: The course is designed to provide a working knowledge of environment, ecology and physical sciences for problem solving. The learner will be able to remember, understand and apply the taught concepts and methods involving social and environmental processes for betterment of environmental health and safety.

COURSE OUTCOMES (CO):

Sl	Course Outcome	Mapped modules
1	Be able to remember the basic concepts related to environment & ecology	M1,M2
2	Be able to remember & understand the scientific problem related to air, water, noise & land pollution	M1, M2
3	Be able to understand environmental laws , regulations , guidelines and n applying those for maintaining quality of environmental health and safety .	M1, M2,M3

Module Number	Content	Total Hours	%age of questions	Covered CO	Blooms Level
Module 1	Environmental Concepts	7	30%	1,2	L1
Module 2	Resources & Pollution	6	30%	2,3	L1, L2
Module 3	Environment Management	7	40%	1,2,3	L2,L3

SYLLABUS

Module 1: Environmental Concepts – Definition & basic concept of Environment & Ecology, man, society & environment, their interrelationship, Elements of ecology elements of ecology - species, population, community, definition of ecosystem- Structure & function of ecosystem (Bio geo chemical cycles, food chain, energy flow, ecological pyramid), Biodiversity & its threats and remedies. [7]

Module 2: Resources & Pollution – Renewable & non-renewable resources, Bio-degradable and non-biodegradable pollutants, Sources & Effects of Pollution, Methods of Control (Air, Water, Land, & Noise)

Module 3: Environment Management - Concept & scope of environment Management, National environmental policy & Environmental Legislations in India, Environment Management System – ISO 14000, Environmental Audit, Eco mark, green Industry, Cases on Environment Impact Assessment.

REFERENCES

Suggested Readings

1. N.K. Oberoi: Environmental Management, Excel Books
2. G.N. Pandey: Environmental Management, Vikas
3. K.M. Agrawal & P.K. Sikdar: Text Book of Environment, MacMillan
4. L.W. Canter: Environmental Impact Assessment, McGraw Hill
5. M.P. Poonia & S.C. Sharma, Environmental Studies, Khanna Publishing House (AICTE Recommended Textbook – 2018)
6. Masters, G. M., “Introduction to Environmental Engineering and Science”, Prentice-Hall of India Pvt. Ltd.,1991.
7. De, A. K., “Environmental Chemistry”, New Age International
8. Fundamentals of Ecology -Odum, E.P.
9. Instant notes on Ecology -Mackenzie, A., Ball, A.S. and Virdee, S.R. (1999) Viva Books
10. G. Dasmahapatra – Basic Environmental Engineering & Elementary Biology, Vikas Publication
11. Environmental Science, Cunningham, TMH
12. Environmental Pollution Control Engineering,C.S.Rao,New Age International
13. Environmental Science, Wright & Nebel, PHI
- 14.Environmental Pollution Analysis, S.M.Khopkar, New Age International