



**KAVAYITRI BAHINABAI CHAUDHARI  
NORTH MAHARASHTRA UNIVERSITY, JALGAON**

(NAAC Re-Accredited 'A' Grade University)

**Faculty of Commerce and Management**

**Structure B. Com. Programme**

**T. Y. B. Com**

**(W.e.f. 2020-21)**



Sr. No	Objectives	Paper No.	Third Year B.Com Semester (V) (W.e.f. June-2020-21)
I	LANGUAGE COMPETENCE International Link Language:		-----
	Local Language		-----
II	CORE COMPETENCE * Improving Economic Understanding & Capacity of Analysis * Preparing for facing the real Business World by Developing Necessary Skills in the Subject	501	Indian Economic Scenario
		502	Principles of auditing
		503	Business Management
		504	Income Tax
		505	Elective (Any One)*
			a) Human Resource Management
b) Introduction to Business Research			
III	APPLIED COMPONENT Developing Skills for Applying Knowledge to Business Situations	506) & 507) Elective (Any One Group)**	
		a) Advanced Accountancy I & II	
		b) Advanced Cost & Management Accounting I & II	
		c) Advanced Banking I & II	
		d) Business Administration I & II	

Sr. No	Objectives	Paper No.	Third Year B.Com Semester (VI) (W.e.f. June-2020-21)
I	LANGUAGE COMPETENCE International Link Language:		-----
	Local Language		-----
II	CORE COMPETENCE * Improving Economic Understanding & Capacity of Analysis * Preparing for facing the real Business World by Developing Necessary Skills in the Subject	601	Indian Economic Scenario
		602	Principles of Auditing
		603	Business Management
		604	Goods and Service Tax (G S T )
		605	Elective (Any One)*
			a) Human Resource Management
b) Introduction to Business Research (Project)			
III	APPLIED COMPONENT Developing Skills for Applying Knowledge to Business Situations	606) & 607) Elective (Any One Group)**	
		a) Advanced Accountancy I & II	
		b) Advanced Cost & Management Accounting I & II	
		c) Advanced Banking I & II	
		d) Business Administration I & II	

ATTESTED

30

PRINCIPAL

Mahatma Jyotiba Phule Mahavidyalaya, Jalgaon

Faculty of Commerce and Management

Department of B.Com.

Jalgaon



**Kavayitri Bahinabai Chaudhari  
North Maharashtra University Jalgaon**  
(NAAC Reaccredited 'A' Grade University)

**FACULTY OF COMMERCE & MANAGEMENT**  
Structure B. Com. Programme  
**(S.Y.B.COM.)**  
w.e.f.-2019-20



Sr. No	Course Opted	Paper No.	Second Year B.Com Semester (III) (w.e.f.. -2019-20)
	Core Elective	301	Business Skills
	CC - I	302	Macro Economics
	CC - II	303	Business & Tax Laws
	CC - IV	304	Corporate Accounting
	CC - V	305	Computing Management
		306	Elective (Any One)* a) Business Entrepreneurship b) Consumer Protection & Business Ethics c) Financial Services & Stock Markets
	SEC - I	307	Elective (Any One)* a) Modern Banking & Financial System. b) Corporate Regulatory Frame Work c) Retail Management d) Business Statistics & Operation Research e) Production Management

Sr. No	Course Opted	Paper No.	Second Year B.Com Semester (IV) (w.e.f.. -2019-20)
	Core Elective	401	Business Skills
	CC- I	402	Macro Economics
	CC - II	403	Business & Tax Laws
	CC - III	404	Corporate Accounting
	CC-IV	405	Cost Accounting
	CC-V	406	Elective (Any One)* a) Business Entrepreneurship b) Consumer Protection & Business Ethics c) Financial Services & Stock Markets
	SEC - II	407	Elective (Any One)* a) Modern Banking & Financial System. b) Corporate Regulatory Frame Work c) Retail Management d) Business Statistics & Operation Research e) Production Management

**General Knowledge-Non credit course**

**ATTESTED**

*[Signature]*





North Maharashtra University, Jalgaon  
(NAAC Reaccredited 'A' Grade University)

FACULTY OF COMMERCE & MANAGEMENT  
Structure B. Com. Programme  
(F. Y. B COM.)

w.e.f.-2018-19



Sr. No	Course Opted	Paper No.	First Year B.Com Semester (I) (w.e.f. -2018-19)
I	Core Elective	101	English for Business
	AEC-I	102	a) Eng/ b) Mar / c) Hindi / d) Urdu / e) Sanskrit
II	CC - I	103	Micro Economics
	CC - II	104	Financial Accounting & Costing
	CC- III	105	Computing Skills.
	CC - IV	106	Elective (Any One) * a) Modern Office Management b) Essentials of e - Commerce c) Co-operative Law & Micro Finance.
III	CC-V	107	Elective (Any One) * a) Principles & Practices of Banking b) Corporate Laws & Secretarial Practice c) Marketing & Advertising d) Business Statistics e) Principles & Practices of Insurance f) Business Environment g) Geography of Disaster Management

Sr. No	Course Opted	Paper No.	First Year B.Com Semester (II) (w.e.f. -2018-19)
I	Core Elective	201	English for Business
	AEC - II	202	a) Eng / b) Mar / c) Hindi / d) Urdu / e) Sanskrit
II	CC - I	203	Micro Economics
	CC - II	204	Financial Accounting & Costing
	CC- III	205	Quantitative Techniques
	CC - IV	206	Elective (Any One) * a) Modern Office Management b) Essentials of e-Commerce c) Co-operative Law & Micro Finance.
III	CC - V	207	Elective (Any One) * a) Principles & Practices of Banking b) Corporate Laws & Secretarial Practice c) Marketing & Advertising d) Business Statistics e) Principles & Practices of Insurance f) Business Environment g) Geography of Disaster Management

Environmental Studies - credit course - two (2) credit

ATTESTED

12



**KAVIYATRI BAHINABAI CHAUDHARI NORTH  
MAHARASHTRA UNIVERSITY, JALGAON**

**FACULTY OF HUMANITIES**

**Choice Based Credit System**

**THIRD YEAR BACHELOR OF ARTS (TYBA): ENGLISH**

**SEMISTER V and VI**

**(W.E.F. 2020-2021)**

**ATTESTED**

*31*



KAVAYITRI BAHINABAI CHAUDHARI  
NORTH MAHARASHTRA UNIVERSITY, JALGAON.

**FACULTY OF HUMANITIES**  
**Structure of T. Y. B. A. (ENGLISH)**  
**Under CBCS Pattern (2020 - 2021)**

Semester	Discipline Specific Core Course DSC	Ability Enhancement Compulsory Courses AEC	Skill Enhancement Course SEC	Discipline Specific Elective Courses DSE	Generic Elective GE
V Credits: 28 (10 Papers)	MIL 3 (03) DSC 1 E (03) DSC 2 E (03) DSC 3 E (03)	English Communication (02)	SEC 3 (02)	DSE 3 A (03) DSE 4 A (03)	GE 1 A (03) (from Language Group) GE 2 A (03) (from Social Sci. Group)
VI Credits: 28 (10 Papers)	MIL 4 (03) DSC 1 F (03) DSC 2 F (03) DSC 3 F (03)	English Communication (02)	SEC 4 (02)	DSE 3 B (03) DSE 4 B (03)	GE 1 B (03) (from Language Group) GE 2 B (03) (from Social Sci. Group)

**Title of Courses:**  
**SEM V & VI**

**Discipline Specific Core Course DSC:**

**MIL: MIL 3 & 4 (Compulsory Course) (Marathi/Hindi/Sanskrit/Urdu/Pali/Aradhamagadhi)**

**DSC 1 (E & F) ENG: Indian Writing in English**

**DSC 2 (E & F): General Paper**

**DSC 3 (E & F): General Paper**

**AEC: Developing Communication Skills**

**SEC 3&4: Skill Enhancement Course**

**DSE 3 ENG A & B: Twentieth Century English Literature**

**DSE 4 ENG A & B: The Study of English Language**

**Generic Elective:**

**GE 1(A) and (B): Film and Literature (This course is compulsory for BA English Program)**

**Choose any one group from social sciences generic elective available in the institute\*:**

**Economics GE 2 (A): Indian Economic Scenario -I**

**GE 2 (B): Indian Economic Scenario-II**

**Geography GE 2 (A): Disaster management**

**GE 2 (B): Sustainability and Development**

**Political Science GE 2 (A): Indian Civil Services**

**GE 2 (B): Management and Good Governance**

**ATTESTED**

**3A**

**Principals**  
Mahatma Gandhi Shikshan Mandal's  
Arts, Science & Commerce College,  
Chopda Tal-Chopda Dist-Jalgaon(M.S.)



Note:

- **Ability Enhancement Course (AEC) - English Communication:** This is a compulsory study paper. It is mandatory for every student entering the third year to study this course.
- **Modern Indian Languages (MIL):** This is a compulsory study paper. It is mandatory for every student entering the third year to choose a study paper in MIL. In any one of the language subjects taught in the college out of *Marathi, Hindi, Sanskrit, Pali, Ardhamagadhi, Urdu*.
- **DSE 3 and DSE 4:** In case of selection of English as special subject, it is mandatory to select one of the three study papers in DSC English subject (literary or applied).
- **DSC** The other two study papers in DSC can be selected from any other two different subjects. It is mandatory to select skill-based study papers of any subject available in the college in SEC.
- It is mandatory to select a total of two interdisciplinary courses in each of the two subjects as mentioned below available in the college in GE. For this, from the group of 'Language' subjects (group of GE language subjects - English, Marathi, Hindi, Sanskrit, Urdu, Pali, Ardhamagadhi) from the interdisciplinary study paper of one subject and from the group of 'Social Science' subjects (group of GE social sciences subjects - political science, history, sociology, Geography, Economics, Conservation, Psychology, Philosophy, Social Work etc.) The students have to choose two such interdisciplinary study papers one from languages group and other from social sciences.\*





**Kavayitri Bahinabai Chaudhari  
North Maharashtra University, Jalgaon**

**ECONOMICS  
(HUMANITIES)**

**With effect from June 2020**

**Revised syllabus for T.Y.B.A. (V and VI Sem.)**

**Semester Pattern**

**CHOICE BASED CREDIT SYSTEM (CBCS)  
Under Graduate Programme (U.G. Course)  
(60:40 PATTERN)  
W.e.f. June-2020**



**ATTESTED**

**Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon**

*[Signature]*  
Kavayitri Bahinabai Chaudhari North Maharashtra University,  
Arts, Science & Commerce College,  
Chopda Tal-Chopda Dist-Jalgaon(M.S.)

**FACULTY OF HUMANITIES- STRUCTURE OF T.Y.B.A. UNDER C.B.C.S. PATTERN**  
**w.e.f. June 2020**  
**SUBJECT : ECONOMICS**

Semester/ Credit	Discipline specific Core Course (DSC)	Ability Enhancement Compulsory Course (AEC)	Skill Enhancement Course (SEC)	Discipline specific Elective Courses (DSE)	Generic Elective (GE)
VI Sem Credit : 28 (10 Papers)	MIL 4 (03) DSC 1 (F) (03) Eco 361 General Paper (Indian Economy Since 1980- IV) DSC 2 F- (03) General Paper DSC 3 F (03) General Paper	English Communica tion (02)	SEC 4 (02) Eco-364 Indian Financial market	DSE 3 (B) (03) (S3) Eco-362 (A) Economics of Public Finance II OR DSE 3 (B) (03) (S3) Eco-362 (B) Industrial Economics -II OR DSE 3 (B) (03)(S3)Eco-362 (C) Statistics for Economics II  DEC 4 (B)(03) (S4) Eco-363 (A) Theory of International Trade & Practices -II OR DEC 4 (B) (03) (S4) Eco-363 (B) Economic Development & Growth -II	GE 1 (A) (03)  GE 2 (B) (03) Eco- 365 Indian Economic Environment II

- AEC- English Communication is Compulsory Paper. It is mandatory to each students admitted in third year.
- MIL is also a compulsory paper. A student has to obtain one paper from Marathi, Hindi, Sanskrit, Urdu, Ardhamagdhi etc.
- DSE-3 and 4 are the papers at specialization level. DSE-3 paper should be one from A, B or C and DSE-4 paper should be one from A and B. These are S-3 & S4 papers.
- DSC 1, 2 and 3 are general papers. Among them, DSC-1 is general Economics paper and DSC-2 and DSC-3 are the two general paper already selected at SYBA level.
- SEC – is a skill based paper. One paper should be selected among the papers taught in the Institute.
- GE is a Generic Elective paper. Two papers should be selected among the papers taught in the Institute.



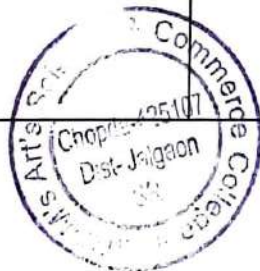
**ATTESTED**

*[Signature]*  
 Mahatma Gandhi Sakshari Mandali  
 Art's, Science & Commerce College,  
 Chopda-425107, Dist-Jalgaon



**FACULTY OF HUMANITIES- STRUCTURE OF T.Y.B.A. UNDER C.B.C.S. PATTERN**  
**w.e.f. June 2020**  
**SUBJECT : ECONOMICS**

Semester/ Credit	Discipline specific Core Course (DSC)	Ability Enhanceme nt Compulsory Course (AEC)	Skill Enhancement (SEC)	Discipline specific Elective Course (DSE)	Generic Elective (GE)
V Sem Credit : 28 (10 Papers)	MIL 3 (03) DSC 1 (E) (03) Eco 351 General Paper (Indian Economy Since 1980- III) DSC 2 E- (03) General Paper DSC 3 E (03) General Paper	English Communica tion (02)	SEC 3 Eco- 354 (02) Modern Banking	DSE 3 (A) (03) (S3) Eco-352 (A) Economics of Public Finance I OR DSE 3 (A) (03) (S3) Eco-352 (B) Industrial Economics -I OR DSE 3 (A) (03) (S3) Eco-352 (C) Statistics for Economics I  DSE 4 (A) (03) (S4) Eco-353 (A) Theory of International Trade & Practices -I OR DSE 4 (A)(03) (S4) Eco-353 (B) Economic Development & Growth -I	GE 1 (A) (03)  GE 2 (A) (03) Eco- 355 Indian Economic Environment I





# Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon



**Choice Based Credit System (CBCS)**

**Syllabus for T.Y.B. A. (Geography)**

**(Under the Faculty of Science and Technology)**

**(Since 2020-2021)**

**ATTESTED**

## Details of CBCS Structure for T.Y.B.A Geography ( With Effect from June 2020)

Subject Code	Semester	Title of Subject	CBCS Structure Code	Credit Point	Total Clock Hours
Gg.351 (G-3)	V	Environmental Geography	DSC 1E	03	45
Gg . 361 (G-3)	VI	Population Geography	DSC 1F	03	45
Gg. 352 (S-3)	V	Economic Geography	DSE 3A	03	45
Gg. 362 (S-3)	VI	Political Geography	DSE 3B	03	45
Gg. 353 (S-4)	V	Practical in Human Geography and Geo-statistics	DSE 4A	03	90
Gg. 363 (S-4)	VI	Practical in Physical Geography	DSE 4B	03	90
Gg. 354 ( SEC of Geography)	V	Field Technique and Introduction to Project Report	SEC 3	02	30
Gg. 364 ( SEC of Geography)	VI	Geographical Information System	SEC 4	02	30
Gg. 355 ( GE of Geography)	V	Disaster Risk Reduction	GE 1A	03	45
Gg.365 ( GE of Geography)	VI	Sustainability And Development	GE 1B	03	45

Weightages of Marks	
University Assessment	60
College Assessment	40
Total Marks	100





॥ अंतरी पेटवू ज्ञानज्योत ॥



कवयित्री बहिणाबाई चौधरी  
उत्तर महाराष्ट्र विश्वविद्यालय, जलगाँव

मानविकी विद्याशाखा

**Choice Based Credit System**

रूचि आधारित साख पध्दति पाठ्यक्रम

बी. ए. तृतीय वर्ष कला - हिंदी

पंचम एवं षष्ठ सत्र  
(V & VI Semester)

(w. e. f. June 2020)



ATTESTED

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PRINCIPAL  
Mahatma Gandhi Shiksha Mandali's  
Art's, Science & Commerce College  
Chopda Tal-Chopda Dist-Jalgaon

**कवयित्री बहिणाबाई चौधरी उत्तर महाराष्ट्र विश्वविद्यालय, जलगाँव**  
**बी. ए. तृतीय वर्ष कला हिंदी पाठ्यक्रम (CBCS)**  
**रूचि आधारित साख पद्धति**  
**पंचम सत्र (V Semester)**

Course Code	Course Type	Title of the Course	Credits	Contact Hours / per semester
MIL III Hindi	Discipline Specific Core Course (DSC)	संपादन लेखन और साहित्य (मुद्रित माध्यम)	03	45
DSC- E (A) Hindi	Discipline Specific Core Course (DSC)	विशेष विधा : यात्रा साहित्य	03	45
	OR			
DSC- E (B) Hindi	Discipline Specific Core Course (DSC)	प्रयोजनमूलक हिंदी	03	45
SEC-III Hindi	Skill Enhancement Course (SEC)	हिंदी व्याकरण तथा अभिव्यक्ति कौशल	02	30
DSE-III (A) Hindi	Discipline Specific Elective Courses (DSE)	हिंदी साहित्य का इतिहास (आदिकाल, भक्तिकाल और रीतिकाल)	03	45
DSE-IV (A) Hindi	Discipline Specific Elective Courses (DSE)	हिंदी भाषा का विकास	03	45
GE-I (A) HINDI	Generic Elective (G.E)	हिंदी की राष्ट्रीय काव्यधारा	03	45

**कवयित्री बहिणाबाई चौधरी उत्तर महाराष्ट्र विश्वविद्यालय, जलगाँव**  
**बी. ए. तृतीय वर्ष कला हिंदी पाठ्यक्रम (CBCS)**  
**रूचि आधारित साख पद्धति**  
**षष्ठ सत्र (VI Semester)**

Course Code	Course Type	Title of the Course	Credits	Contact Hours / per semester
MIL IV HINDI	Discipline Specific Core Course (DSC)	हिंदी सिनेमा और साहित्य : (इलेक्ट्रॉनिक माध्यम)	03	45
DSC- F (A) Hindi	Discipline Specific Core Course (DSC)	विशेष विधा : भारतीय संत काव्य	03	45
	OR	वैकल्पिक पाठ्यक्रम		
DSC- F (B) Hindi	Discipline Specific Core Course (DSC)	प्रयोजनमूलक हिंदी	03	45
SEC-IV Hindi	Skill Enhancement Course (SEC)	हिंदी भाषा का मानकीकरण और अशुद्धि शोधन	02	30
DSE-III (B) Hindi	Discipline Specific Elective Courses (DSE)	हिंदी साहित्य का इतिहास (आधुनिक काल)	03	45
DSE-IV (B) Hindi	Discipline Specific Elective Courses (DSE)	भाषा विज्ञान	03	45
GE-I (B) HINDI	Generic Elective (G.E)	खानदेश का लोक साहित्य	03	45



॥ अंतरी पेटवू ज्ञानज्योत ॥



कवयित्री बहिणाबाई चौधरी उत्तर महाराष्ट्र विद्यापीठ, जळगाव

मानवविज्ञान विद्याशाखा  
Choice Based Credit System  
तृतीय वर्ष कला - मराठी  
सत्र पाचवे व सहावे  
(शैक्षणिक वर्ष 2020 - 2021 पासून लागू)

**DSC मराठी : वाङ्मयीन मराठी**  
विशिष्ट वाङ्मयप्रकारांचा अभ्यास  
सत्र पाचवे

DSC मराठी E : एकांकिका लेखनाचा अभ्यास  
सत्र सहावे

DSC मराठी F : ललित गद्य लेखनाचा अभ्यास  
किंवा

पर्यायी अभ्यासपत्रिका

**DSC मराठी : उपयोजित मराठी**  
व्यवसायाभिमुख लेखनासाठी मराठी  
सत्र पाचवे

DSC मराठी E : व्यवसायाभिमुख लेखनासाठी मराठी  
सत्र सहावे

DSC मराठी F : व्यवसायाभिमुख लेखनासाठी मराठी

**DSE 3 मराठी : मध्ययुगीन मराठी वाङ्मयाचा इतिहास**  
सत्र पाचवे

DSE 3 मराठी A: मध्ययुगीन मराठी वाङ्मयाचा इतिहास  
सत्र सहावे

DSE 3 मराठी B : मध्ययुगीन मराठी वाङ्मयाचा इतिहास

ATTESTED



PRINCIPAL

Mahatma Gandhi Shikshan Mandal  
Arts, Science & Commerce College,  
Chopda Tal. Chopda Dist. Jalgaon (M.S.)



**DSE 4 मराठी : मराठीचा भाषिक अभ्यास**

सत्र पाचवे

**DSE 4 मराठी A : मराठीचा भाषिक अभ्यास**

सत्र सहावे

**DSE 4 मराठी B : मराठीचा भाषिक अभ्यास**

**GE मराठी : मराठी लोकरंगभूमी**

सत्र पाचवे

**GE मराठी A : मराठी लोकरंगभूमी**

सत्र सहावे

**GE मराठी B : मराठी लोकरंगभूमी**

**MIL मराठी : माध्यमांसाठी लेखन व संवाद**

सत्र पाचवे

**MIL मराठी 3 : दृक्-श्राव्य माध्यमांसाठी लेखन व संवाद**

सत्र सहावे

**MIL मराठी 4 : आधुनिक समाजमाध्यमांसाठी लेखन व संवाद**

**SEC मराठी : लेखनकौशल्ये**

सत्र पाचवे

**SEC मराठी 3 : लेखनकौशल्य - निबंधलेखन**

सत्र सहावे

**SEC मराठी 4 : लेखनकौशल्य - ग्रंथपरीक्षण लेखन**

ATTESTED

3A

Principal  
Maharaja Chhatrapati Shivaji Maharaj  
Maharaja Chhatrapati Shivaji Maharaj  
Chhatrapati Shivaji Maharaj

**Kavayitri Bahinabai Chaudhari**  
**North Maharashtra University, Jalgaon**

**Structure of T. Y. B. A. (Faculty of Humanities)**  
**Under CBCS Pattern (2020 - 2021)**

Semester	<u>Discipline Specific Core Course</u> DSC	<u>Ability Enhancement Compulsory Courses</u> AEC	<u>Skill Enhancement Course</u> SEC	<u>Discipline Specific Elective Courses</u> DSE	<u>Generic Elective</u> GE
V Credits: 28 (10 Papers)	MIL 3 (03) DSC 1 E (03) – Marathi G - 3 DSC 2 E (03) DSC 3 E (03)	English Communication (02)	SEC 3 (02) – Marathi	DSE 3 A (03) – Marathi S - 3 DSE 4 A (03) – Marathi S - 4	GE 1 A (03) – Marathi GE 2 A (03)
VI Credits: 28 (10 Papers)	MIL 4 (03) DSC 1 F (03) – Marathi G - 3 DSC 2 F (03) DSC 3 F (03)	English Communication (02)	SEC 4 (02) – Marathi	DSE 3 B (03) – Marathi S - 3 DSE 4 B (03) – Marathi S - 4	GE 1 B (03) – Marathi GE 2 B (03)

- **AEC - English Communication** ही अनिवार्य अभ्यासपत्रिका आहे. तृतीय वर्षास प्रवेशित प्रत्येक विद्यार्थ्यांने ही अभ्यासपत्रिका अभ्यासणे अनिवार्य आहे.
- **MIL** ही अनिवार्य अभ्यासपत्रिका आहे. तृतीय वर्षास प्रवेशित प्रत्येक विद्यार्थ्यांने मराठी, हिंदी, संस्कृत, पाली, अर्धमागधी, उर्दू यांपैकी महाविद्यालयात शिकवल्या जाणाऱ्या कोणत्याही एका भाषा विषयाच्या **MIL** मधील अभ्यासपत्रिकेची निवड करणे अनिवार्य आहे.
- **DSE 3, 4** मध्ये मराठी विषयाच्या अभ्यासपत्रिकांची निवड केल्यास **DSC** मधील तीन अभ्यासपत्रिकांपैकी एक अभ्यासपत्रिका मराठी विषयाची निवडणे (वाङ्मयीन वा उपयोजित) अनिवार्य आहे.
- **DSC** मधील अन्य दोन अभ्यासपत्रिका अन्य कोणत्याही दोन भिन्न विषयांच्या निवडता येतील.
- **SEC** मध्ये महाविद्यालयात उपलब्ध असलेल्या कोणत्याही विषयाच्या कौशल्याधारित अभ्यासपत्रिकांची निवड करणे अनिवार्य आहे.
- **GE** मध्ये महाविद्यालयात विशेष स्तरावर उपलब्ध कोणत्याही दोन विषयांच्या प्रत्येकी एक अशा एकूण दोन आंतरविद्याशाखीय अभ्यासपत्रिकांची निवडणे अनिवार्य आहे. (उदा. GE मराठी आणि GE राज्यशास्त्र)



**ATTESTED**

34  
Principal

Mahatma Gandhi Shikshan Mandali  
Art's, Science & Commerce College  
Chopda Tal-Chopda Dist-Jalgaon(M.S.)

॥ अंतरी पेटवू ज्ञानज्योत ॥

"A" Grade NAAC Re- Accredited

(3<sup>rd</sup> Cycle)



**Kavayitri Bahinabai Chaudhari  
North Maharashtra University, Jalgaon**

Revised Syllabus

For

**Political Science**

**(T.Y.B.A.)**

CBCS – Semester Pattern

(Choice Based Credit System)

Semester V & VI

Academic Year 2020-2021

Under the Faculty of Humanities.

K.B.C. North Maharashtra University , Jalgaon



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K.B.C.N.M.University, Jalgaon (M.S)

Structure of T.Y.B.A ( Faculty of Humanities)

Under C.B.C.S. Pattern (2020 – 2021)

Sr. No	Semester	Discipline Specific Core Course DSC	Ability Enhancement Compulsory Courses AEC	Skill Enhancement Course SEC	Discipline Specific Elective Courses DSE	Generic Elective GE
1.	V Credits : 28 10 Papers [5 <sup>th</sup> Sem]	MIL 3 (03) DSC 1 E (03) (Pol.Sci G3) DSC 2 E (03) DSC 3 E (03)	English Communication (02)	SEC3 (02) Political Sci	DSE 3 A (03) Pol. Sci S-3 DSE 4 A (03) Pol. Sci S-4	GE 1 A (03) -Pol Sci GE 2 A (03)
2.	VI Credits : 28 10 Papers [6 <sup>th</sup> Sem]	MIL 4 (03) DSC 1 F (03) (Pol.Sci G3) DSC 2 F (03) DSC 3 F (03)	English Communication (02)	SEC4 (02) Political Sci	DSE 3 B (03) Pol. Sci S-3 DSE 4 B (03) Pol. Sci S-4	GE 1 B (03) -Pol Sci GE 2 B (03)

- AEC – English Communication ही अनिवार्य अभ्यास पत्रिका आहे. तृतीय वर्षास प्रवेशित प्रत्येक विध्यार्थाने ही अभ्यासपत्रिका अभ्यासणे अनिवार्य आहे.
- MIL ही अनिवार्य अभ्यास पत्रिका आहे. तृतीय वर्षास प्रवेशित प्रत्येक विध्यार्थाने मराठी, हिंदी, संस्कृत, पाली, अर्धमागधी, उर्दू या पैकी महाविद्यालयात शिकवल्या जाणाऱ्या कोणत्याही एका भाषा विषयाच्या MIL मधील अभ्यास पत्रिकेची निवड करणे अनिवार्य आहे.
- DSE 3, 4 मध्ये राज्यशास्त्र विषयाची अभ्यासपत्रिकाची निवड केल्यास DSC मधील तीन अभ्यासपत्रिका पैकी एक अभ्यासपत्रिका राज्यशास्त्र विषयाची निवडणे अनिवार्य आहे.
- DSC मधील अन्य दोन अभ्यासपत्रिका अन्य कोणत्याही दोन विषयांच्या निवडता येतील.
- SEC मध्ये महाविद्यालयात उपलब्ध असलेल्या कोणत्याही विषयाच्या कौशल्याधारित अभ्यासपत्रिकांची निवड करणे अनिवार्य आहे.
- GE मध्ये महाविद्यालयात विशेष स्तरावर उपलब्ध कोणत्याही दोन विषयांच्या प्रत्येकी एक अशा एकूण दोन आंतरविद्याशाखीय अभ्यास पत्रिकांची निवड करणे अनिवार्य आहे. (उदा. GE राज्यशास्त्र आणि GE मराठी).



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Mahatma Gandhi Sanshodhan Mandal  
Art's, Science & Commerce College

Chopda-425107, Dist-Jalgaon(M.S.)

॥ अंतरी पेटवू ज्ञानज्योत ॥  
" A" Grade NAAC Re- Accredited  
(3<sup>rd</sup> Cycle)



**K.B.C. North Maharashtra University, Jalgaon (M.S)**  
**Faculty of Humanities Syllabus under Choice-Based Credit System**

**Third Year Arts : Political Science**

**Semester : Fifth and Six (5 & 6)**

**[Since June 2020-2021 Academic Year]**

- DSC Political Science, Discipline Specific Core Course  
Semester : 5  
DSC 1 E Indian Political Thinker Part - I  
Semester : 6  
DSC 1 F Indian Political Thinker Part - II
- DSE Pol. Sci, Discipline Specific Elective Course  
Semester : 5  
DSE 3A Western Political Thinker Part – I  
Semester : 6  
DSE 3B Western Political Thinker Part – II  
Semester : 5  
DSE 4A Political Sociology Part – I  
Semester : 6  
DSE 4B Political Sociology Part – II
- G.E. Pol. Sci. Generic Elective (Interdisciplinary)  
Semester : 5  
G.E.1 A Indian Civil Services  
Semester : 6  
G.E.1 B Civil Services and Good Governance
- SEC Pol. Sci Skill Enhancement Course  
Semester : 5  
SEC 3 Journalism and Mass Communication  
Semester : 6  
SEC 4 Political Journalism

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**PRINCIPAL**

Mahatma Gandhi Krishi Mandak's  
Arts, Science & Commerce College  
Chopda, Dist. Jalgaon (M.S.)



**KAVAYITRI BAHINABAI CHAUDHARI**

**NORTH MAHARASHTRA UNIVERSITY, JALGAON.**

**Structure of F. Y. B. A. (Faculty of Humanities) Under CBCS Pattern**  
**(2018-19)**

Semester	<u>Discipline Specific Core Course</u> DSC	<u>Ability Enhancement Compulsory Courses</u> AEC	<u>Skill Enhancement Course</u> SEC	<u>Discipline Specific Elective Courses</u> DSE	<u>Generic Elective</u> GE
<b>I</b> Credits: 18	1. Compulsory English (03) 2. DSC 1 A (03) 3. DSC 2 A (03) 4. DSC 3 A (03) 5. DSC 4 A (03) 6. DSC 5 A (03)	-----	-----	-----	-----
<b>II</b> Credits: 18	1. Compulsory English (03) 2. DSC 1 B (03) 3. DSC 2 B (03) 4. DSC 3 B (03) 5. DSC 4 B (03) 6. DSC 5 B (03)	-----	-----	-----	-----

Papers for F. Y. B. A. (per Semester) Academic Year 2018 - 2019		Credits = Sem. I (18) + Sem. II (18) = 36
Compulsory English		03
DSC 1 DSC 2 DSC 3 DSC 4 DSC 5	Any FIVE Core Papers from Faculty of Humanities (Arts)	05 papers of 03 Credits = 15

Notes –

1. DSC (Discipline Specific Core) Courses are open for Faculty of Humanities (Arts) only.
2. Compulsory English + 05 Core Papers = Total 06 Papers for F. Y. B. A. (Each paper of 03 Credits)
3. Examination Pattern for all papers is 60 + 40 = 100 (60 marks for Theory Examination and 40 marks for Internal Evaluation)

Date: 23/07/2018



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*(Signature)*

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Mahatma Ghandi Shiksha Mandal's  
Arts, Science & Commerce College,  
Chopda Tal. C. Dist. Jalgaon (M.S.)





**KAVAYITRI BAHINABAI CHAUDHARI  
NORTH MAHARASHTRA UNIVERSITY, JALGAON.**

**Structure of S.Y.B.A - Faculty of Humanities**

**Under the CBCS Pattern (2019-2020)**

**CBCS Pattern (w.e.f. June 2019)**

Semester	Discipline specific core course DSC	Ability Enhancement Compulsory Courses AEC	Skill Enhancement Course SEC	Discipline specific Elective Courses DSE	Generic Elective GE
III Credits : 20 (8 Papers)	Compulsory English (03) MIL 1 (03) DSC 1 C (02) DSC 2 C (02) DSC 3 C (02)	-----	SEC 1 (02)	DSE 1 A (03) DSE 2 A (03)	-----
IV Credits : 22 (9 Papers)	Compulsory English (03) MIL 2 (03) DSC 1 D (02) DSC 2 D (02) DSC 3 D (02) DSC 4 D (02) *	-----	SEC 2 (02)	DSE 1 B (03) DSE 2 B (03)	-----

\* In Sem. IV DSC - 4 D - Will be Minor Study Project of DSE - 1 - A and 2 B (Paper of special subjects)

\* General Knowledge : Non Credit Paper For Semester IV

\* विद्यार्थ्यांस ज्या विषयात M.A करावयाचे असेल त्यात बी.ए प्रथम, द्वितीय व तृतीय वर्ष मिळून किमान 24 Credits प्राप्त करणे अनिवार्य आहे.

(Translation)

\* Those students who are willing to pursue M.A. (PG) should earn 24 Credits during BA first, second & third year



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Mandla College, Jalgaon Mandla  
Mandla College, Jalgaon Mandla  
Mandla College, Jalgaon Mandla



**KAVAYITRI BAHINABAI CHAUDHARI**  
**NORTH MAHARASHTRA UNIVERSITY, JALGAON.**  
**Structure of T. Y. B. A. (Faculty of Humanities)**  
**Under CBCS Pattern (2020 - 2021)**

Semester	<u>Discipline Specific Core Course</u> DSC	<u>Ability Enhancement Compulsory Courses</u> AEC	<u>Skill Enhancement Course</u> SEC	<u>Discipline Specific Elective Courses</u> DSE	<u>Generic Elective</u> GE
V Credits: 28 (10 Papers)	MIL 3 (03) DSC 1 E (03) DSC 2 E (03) DSC 3 E (03)	English Communication (02)	SEC 3 (02)	DSE 3 A (03) DSE 4 A (03)	GE 1 A (03) (from Language Group) GE 2 A (03) (from Social Sci. Group)
VI Credits: 28 (10 Papers)	MIL 4 (03) DSC 1 F (03) DSC 2 F (03) DSC 3 F (03)	English Communication (02)	SEC 4 (02)	DSE 3 B (03) DSE 4 B (03)	GE 1 B (03) (from Language Group) GE 2 B (03) (from Social Sci. Group)

- AEC - English Communication ही अनिवार्य अभ्यासपत्रिका आहे. तृतीय वर्षास प्रवेशित प्रत्येक विद्यार्थ्यांनी ही अभ्यासपत्रिका अभ्यासणे अनिवार्य आहे.
- MIL ही अनिवार्य अभ्यासपत्रिका आहे. तृतीय वर्षास प्रवेशित प्रत्येक विद्यार्थ्यांनी मराठी, हिंदी, संस्कृत, पाली, अर्धमागधी, उर्दू यांपैकी महाविद्यालयात शिकवल्या जाणाऱ्या कोणत्याही एका भाषा विषयाच्या MIL मधील अभ्यासपत्रिकेची निवड करणे अनिवार्य आहे.
- DSE 3, 4 मध्ये मराठी विषयाच्या अभ्यासपत्रिकांची निवड केल्यास DSC मधील तीन अभ्यासपत्रिकांपैकी एक अभ्यासपत्रिका मराठी विषयाची निवडणे (वाङ्मयीन वा उपयोजित) अनिवार्य आहे.
- DSC मधील अन्य दोन अभ्यासपत्रिका अन्य कोणत्याही दोन भिन्न विषयांच्या निवडता येतील. SEC मध्ये महाविद्यालयात उपलब्ध असलेल्या कोणत्याही विषयाच्या कौशल्याधारित अभ्यासपत्रिकांची निवड करणे अनिवार्य आहे.
- GE मध्ये महाविद्यालयात उपलब्ध खाली नमूद केल्याप्रमाणे दोन विषयांच्या प्रत्येकी एक अशा एकूण दोन आंतरविद्याशाखीय अभ्यासपत्रिकांची निवड करणे अनिवार्य आहे. त्यासाठी 'भाषा' विषयांच्या गटातून (GE भाषा विषयांचा गट - इंग्रजी, मराठी, हिंदी, संस्कृत, उर्दू, पाली, अर्धमागधी) एका विषयाच्या आंतरविद्याशाखीय अभ्यासपत्रिकेची आणि 'सामाजिक शास्त्र' विषयांच्या गटातून (GE सामाजिक शास्त्र विषयांचा गट - राज्यशास्त्र, इतिहास, समाजशास्त्र, भूगोल, अर्थशास्त्र, संरक्षणशास्त्र, मानसशास्त्र, तत्त्वज्ञान, समाजकार्य आदी) एका विषयाच्या आंतरविद्याशाखीय अभ्यासपत्रिकेची अशी दोन अभ्यासपत्रिकांची निवड विद्यार्थ्यांनी कराव्याची आहे.



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Mahatma Gandhi Shikshan Mandali's  
Arts Science & Commerce College  
Chopda Tal-Chopda Dist-Jalgaon (Vij.)



## (Translation)



- AEC - English Communication is a compulsory course. It is mandatory for every student entering the third year to study this textbook.
- MIL is a compulsory study paper. It is mandatory for every student entering the third year to choose a study paper in MIL in any one of the language subjects taught in the college from Marathi, Hindi, Sanskrit, Pali, Ardhamagadhi, Urdu.
- In case of selection of study papers in Marathi subject in DSE 3, 4, it is mandatory to select one of the three study papers in DSC for Marathi subject (literary or applied).
- The other two study papers in DSC can be selected from any other two different subjects. It is mandatory to select skill based study papers of any subject available in the college in SEC.
- It is mandatory to select a total of two interdisciplinary curriculum for each of the two subjects as mentioned below available in the college in GE. For this, from the group of 'Language' subjects (group of GE language subjects - English, Marathi, Hindi, Sanskrit, Urdu, Pali, Ardhamagadhi) from the interdisciplinary study paper of one subject and from the group of 'Social Science' subjects (group of GE social sciences subjects - political science, history, sociology, Geography, Economics, Conservation, Psychology, Philosophy, Social Work etc.) The students have to choose two such inter-disciplinary study papers of the same subject.

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Mahatma Gandhi Shikshan Mandal's  
Art's, Science & Commerce College,  
Chopda Tal-Chopda Dist-Jalgaon(M.S.)





Kavayitri Bahinabai Chaudhari  
North Maharashtra University,  
Jalgaon



Proposed Structure of Syllabus for B.Sc.  
T. Y. B. Sc. (ZOOLOGY)  
Choice Based Credit System (CBCS)

2020-21

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Mahatma Gandhi Shikshan Mandal's  
Art's, Science & Commerce College,  
Chupda Tal-Chupda Dist-Jalgaon(M.S.)



## Structure of curriculum of TYBSc (Zoology)

## Semester V

Discipline	Course Type	Course Code	Course title	Credits	Hours/ week (Clock Hours)	Total Teaching hours	Marks (Total 100)	
							CA	UA
Discipline Specific Course (DSC)	Core I	Zoo-501	Reproductive Endocrinology	3	3	45	40	60
	Core I	Zoo-502	Cell and Molecular Biology (CMB)	3	3	45	40	60
	Core III	Zoo-503	Mammalian Histology	3	3	45	40	60
	Core IV	Zoo-504	Animal Biotechnology	3	3	45	40	60
DSC Skill Enhancement Course [SEC]	Skill Based	Zoo-505	Public health and hygiene	3	3	45	40	60
DSC Elective Course	Elective Course (Any one)	Zoo-506 (A)	Pest Management	3	3	45	40	60
		Zoo-506 (B)	Aquarium Fish Keeping					
DSC	Core (Practical)	Zoo-507	Practical related to Zoo-501 & Zoo502 (CB)	2	4 (Per batch)	60	40	60
		Zoo-508	Practical related to Zoo 502 (MB) & Zoo 503	2	4 (Per batch)	60	40	60
		Zoo-509	Practical related to Zoo504	2	4 (Per batch)	60	40	60
Non Credit Audit Course	Elective audit course (Any one)	AC-501A	NSS	No credit	2	30	100	---
		AC-501 B	NCC					
		AC-501 C	Sports					

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Mahma Gandhi Shikshan Mandal's  
Art, Science & Commerce College,  
Chopda Tal-Chopda Dist-Jalgaon(M.S.)

**Structure of curriculum of TYBSc (Zoology)**

**Semester VI**

Discipline	Course Type	Course Code	Course title	Credits	Hours/week (Clock Hours)	Total Teaching hours	Marks (Total 100)	
							CA	UA
Discipline Specific Course(D SC)	Core I	Zoo-601	Study of Leech & Calotes	3	3	45	40	60
	Core I	Zoo-602	Chick Embryology	3	3	45	40	60
	Core III	Zoo-603	Applied Zoology	3	3	45	40	60
	Core IV	Zoo-604	Microtechnique	3	3	45	40	60
DSC Skill Enhancement Course [SEC]	Skill Based	Zoo-605	Research Methodology	3	3	45	40	60
DSC Elective Course	Elective Course (Any one)	Zoo-606(A)	Bioinformatics	3	3	45	40	60
		Zoo-606 (B)	Sericulture					
DSC	Core (Practical)	Zoo-607	Practical related to Zoo-601	2	4 (Per batch)	60	40	60
		Zoo-608	Practical related to Zoo 602 & Zoo 603	2	4 (Per batch)	60	40	60
		Zoo-609	Practical related to Zoo 604	2	4 (Per batch)	60	40	60
Non Credit Audit Course	Elective audit course (Any one)	AC-601 A	Soft skill	No credit	2	30	10	0
		AC-601 B	Yoga					
		AC-601 C	Practicing Cleanliness					

**CA: Class assessment {Internal examination}; UA: University assessment**

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**PRINCIPAL**

Mahatma Gandhi Shikshan Mandal's  
Art's, Science & Commerce College,  
Chopda Tal-Chopda Dist: Jalgaon (M.S.)



**Kavayitri Bahinabai Chaudhari  
North Maharashtra University, Jalgaon**

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**Syllabus**

**T.Y.B.Sc.**

**Subject: Chemistry**

**Choice Based Credit System**

**With Effect from June -2020**

**As Per U.G.C. Guidelines**

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**Prepared By**

**Board of Studies**

**Chemistry,**

**Kavayitri Bahinabai Chaudhari**

**North Maharashtra University, Jalgaon**



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**PRINCIPAL**

Mahatma Ganda Shukhan Mandal's  
Arts, Science & Commerce College,  
Kopda Tal:Chopda Dist:Jalgaon(M.S.)



# Syllabus

**Class- T.Y.B.Sc. Subject- Chemistry**

**Choice Based Credit System (CBCS) (60-40) Pattern**

**with effect from June-2020**

**Structure of Curriculum of T.Y.B.Sc. (Chemistry)**

**Semester – V**

Course Type	Course code	Course Title	Credits	Hours per week	Teaching Hours
Core I	CH – 501	Principles of Physical Chemistry-I	3	3	45
Core II	CH – 502	Inorganic Chemistry	3	3	45
Core III	CH – 503	Organic Reaction Mechanism	3	3	45
Core IV	CH – 504	Industrial Chemistry	3	3	45
Skill Enhancement (SEC)	CH – 505	Analytical Instrumentation	3	3	45
Elective (Any One)	CH – 506 (A)	Biochemistry	3	3	45
	CH – 506 (B)	Green Chemistry	3	3	45
Core course (Practical)	CH – 507	Physical Chemistry Practical	2	4 (Per Batch)	60
	CH – 508	Inorganic Chemistry Practical	2	4 (Per Batch)	60
	CH – 509	Organic Chemistry Practical	2	4 (Per Batch)	60
Non-Credit Audit Course (Any One)	AC-510	NSS	No Credit	2- Batches	60
	AC-511	NCC		2- Batches	60
	AC-512	Sports		2- Batches	60

**Note:**

1. Each lecture is of one hour (60 Minutes) duration.
2. Each theory paper has three lectures per week.
3. Each practical course has four lectures per week.
4. An industrial study tour is compulsory for the T.Y.B.Sc. Students. The students should submit their tour reports at the time of practical examination of VI<sup>th</sup> Semester.

**ATTESTED**

Attn: Secretary  
 Chapter for...

5. Use of Chart/Text book/Hand book of practical is allowed during examination.
6. Scientific calculator (non-programmable) is allowed during theory and practical examination.
7. All units should be in SI unit.

### Semester VI

Course Type	Course code	Course Title	Credits	Hours per week	Teaching Hours
Core I	CH – 601	Principles of Physical Chemistry-II	3	3	45
Core II	CH – 602	Chemistry of Inorganic Solids	3	3	45
Core III	CH – 603	Spectroscopic Methods of Structure Determination	3	3	45
Core IV	CH – 604	Chemistry of Industrially Important Products	3	3	45
Skill Enhancement	CH – 605	Analytical Techniques	3	3	45
Elective (Any One)	CH – 606 (A)	Polymer Chemistry	3	3	45
	CH – 606 (B)	Research Methodology for Chemistry	3	3	45
Core course (Practical)	CH – 607	Physical Chemistry Practical	2	4 (Per Batch)	60
	CH – 608	Inorganic Chemistry Practical	2	4 (Per Batch)	60
	CH – 609	Organic Chemistry Practical	2	4 (Per Batch)	60
Non-Credit Audit Course (Any One)	AC-610	Soft Skill	No Credit	2- Batches	60
	AC-611	Yoga		2- Batches	60
	AC-612	Practicing Cleanliness		2- Batches	60

**ATTESTED**

*(Signature)*

PRINCIPAL

Mahatma Gandhi Shiksha Mandali  
Arts, Science & Commerce College,  
Chopda Tal-Chopda Dist-Jalgaon (M.S.)

**Note:**

1. Each lecture is of one hour (60 Minutes) duration.
2. Each theory paper has three lectures per week.
3. Each practical course has four lectures per week.





॥ अंतरी पेटवू ज्ञानज्योत ॥  
कवयित्री बहिणाबाई चौधरी उत्तर महाराष्ट्र विद्यापीठ, जळगाव  
Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon

अभ्यास मंडळ विभाग

## FACULTY OF SCIENCE AND TECHNOLOGY

Structure B.Sc Programme CBCS pattern)

### F.Y.B.Sc

w.e.f - 2018-19

Semester	Core Courses		Ability enhancement compulsory course	Skill enhancement course	Discipline specific elective
One I (Total credits = 26)	DSC -1 A (CREDIT 6)	PAPER 1 (CREDIT 2)	English/Marathi/Hindi/MIL Communication (CREDIT 2) or Environmental Science (CREDIT 2)		
		PAPER 2 (CREDIT 2)			
		PRACTICAL (CREDIT 2)			
	DSC -2 A (CREDIT 6)	PAPER 1 (CREDIT 2)			
		PAPER 2 (CREDIT 2)			
		PRACTICAL (CREDIT 2)			
	DSC -3 A (CREDIT 6)	PAPER 1 (CREDIT 2)			
		PAPER 2 (CREDIT 2)			
		PRACTICAL (CREDIT 2)			
	DSC -4 A (CREDIT 6)	PAPER 1 (CREDIT 2)			
		PAPER 2 (CREDIT 2)			
		PRACTICAL (CREDIT 2)			



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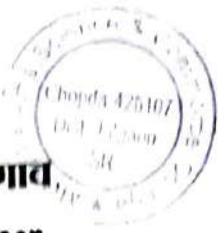
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PERIODICAL

Principal  
Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon



॥ अंतरी पेटवू ज्ञानज्योत ॥  
कवयित्री बहिणाबाई चौधरी उत्तर महाराष्ट्र विद्यापीठ, जळगाव,  
Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon



अभ्यास मंडळ विभाग

## FACULTY OF SCIENCE AND TECHNOLOGY

Structure B.Sc Programme CBCS pattern)

### F.Y.B.Sc

w.e.f - 2018-19

Semester	Core Courses	Ability enhancement compulsory course	Skill enhancement course	Discipline specific elective
<b>Two II</b> ( Total credits = 26 )	DSC -1 B (CREDIT 6)	PAPER 1 ( CREDIT 2 )	Environmental Science ( CREDIT 2 ) or English/Marathi/Hindi/MIL Communication ( CREDIT 2 )	
		PAPER 2 ( CREDIT 2 )		
		PRACTICAL ( CREDIT 2 )		
	DSC -2 B (CREDIT 6)	PAPER 1 ( CREDIT 2 )		
		PAPER 2 ( CREDIT 2 )		
		PRACTICAL ( CREDIT 2 )		
	DSC -3 B (CREDIT 6)	PAPER 1 ( CREDIT 2 )		
		PAPER 2 ( CREDIT 2 )		
		PRACTICAL ( CREDIT 2 )		
	DSC -4 B (CREDIT 6)	PAPER 1 ( CREDIT 2 )		
		PAPER 2 ( CREDIT 2 )		
		PRACTICAL ( CREDIT 2 )		

\*Students will choose 4 core courses (DSC – 1 to DSC - 4) each of credits Six.

\*a) Ability enhancement compulsory courses English / Marathi / Hindi / MIL can be chosen at Semester I or Semester II.

\*b) AECC Environmental Science in another Semester in another Semester i.e at Semester II or Semester I.

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PRINCIPAL

Prof. Dr. G. S. Mendale  
Faculty of Science & Technology College,  
Chopda Tal. - Chopda Dist. - Jalgaon (M.S.)



॥ अंतरी पेटवु ज्ञानज्योत ॥  
**कवयित्री बहिणाबाई चौधरी उत्तर महाराष्ट्र विद्यापीठ, जळगाव**  
**Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon**

अभ्यास मंडळ विभाग

**FACULTY OF SCIENCE AND TECHNOLOGY**  
(Structure B.Sc Programme CBCS pattern)

(Revised)

**S.Y.B.Sc**

w.e.f - 2019-20

Semester	Core Courses		Ability enhancement compulsory course	Skill enhancement course	Discipline specific elective
<b>III ( Three )</b> ( Total credits = 22_ )	DSC -1 C ( CREDIT 6 )	PAPER 1 ( CREDIT 2 )	Advance Communication Skill III (English/Marathi) ( CREDIT 2 ) ..... General knowledge Paper (Non Credit)	SEC - I ( CREDIT 2 )	
		PAPER 2 ( CREDIT 2 )			
		PRACTICAL ( CREDIT 2 )			
	DSC -2 C ( CREDIT 6 )	PAPER 1 ( CREDIT 2 )			
		PAPER 2 ( CREDIT 2 )			
		PRACTICAL ( CREDIT 2 )			
	DSC -3 C ( CREDIT 6 )	PAPER 1 ( CREDIT 2 )			
		PAPER 2 ( CREDIT 2 )			
		PRACTICAL ( CREDIT 2 )			
Semester	Core Courses		Ability enhancement compulsory course	Skill enhancement course	Discipline specific elective
<b>IV Four</b> ( Total credits = 22_ )	DSC -1 D ( CREDIT 6 )	PAPER 1 ( CREDIT 2 )	Advance Communication Skill IV (English/Marathi) ( CREDIT 2 ) ..... General knowledge Paper (Non Credit)	SEC - II ( CREDIT 2 )	
		PAPER 2 ( CREDIT 2 )			
		PRACTICAL ( CREDIT 2 )			
	DSC -2 D ( CREDIT 6 )	PAPER 1 ( CREDIT 2 )			
		PAPER 2 ( CREDIT 2 )			
		PRACTICAL ( CREDIT 2 )			
	DSC -3 D ( CREDIT 6 )	PAPER 1 ( CREDIT 2 )			
		PAPER 2 ( CREDIT 2 )			
		PRACTICAL ( CREDIT 2 )			

\*Students will choose 3 core courses out of 4 offered at first year.

\*Students have to choose one skill enhancement course (SEC) related to any core subject they selected.

\*The skill enhancement course selected for semester-III and semester-IV should be related to same core subject.

\*Students can do specialization in any subject at third year irrespective of the selected skill enhancement course at S.Y level.

\*For fresh candidates assessment of non-credit course (General knowledge) will be at the end of fourth semester.

\*One hour per week should be given to (Test & Tutorial) Internal evaluation for each paper.

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PRINCIPAL

Mahma G. B. Shastri Mandol's  
Arts, Science & Commerce College,  
Topda Tal. Chopda Dist. Jalgaon (M.S.)





## T. Y. B. Sc. Subject Name (CBCS Structure) Semester V and VI

### Preamble

### Introduction

### Scheme for B.Sc. Program (Faculty of Science and Technology)

	First Year				Second Year				Third Year				Total Credit value		
	Semester I		Semester II		Semester III		Semester IV		Semester V		Semester VI				
	Credits each	Courses	Credits each	Courses	Credits each	Courses	Credits each	Courses	Credits each	Courses	Credits each	Courses			
1	<b>Care courses</b>														
	4	4	4	4	4	3	4	3					4 X 14 = 56		
	2	4	2	4	2	3	2	3					2 X 14 = 28		
2	2	1	2	1	2	1	2	1					2 X 4 = 08		
3					2	1	2	1					2 X 2 = 04		
4	<b>Discipline Specific Core (DSC)</b>														
									3	4	3	4	3 X 8 = 24		
									2	3	2	3	2 X 6 = 12		
5									3	1	3	1	3 X 2 = 06		
6									3	1	3	1	3 X 2 = 06		
7									None Credit	Any one	None Credit	Any one	-		
	<b>Total Credit value (Credit x No. of Courses)</b>		26		26		22		22		24		24		144

### Learning Objectives

**ATTESTED**

Deputy Registrar (Academics)  
 T.Y. B.Sc. Program  
 Chyeta 425107, Dist. Jalgaon (Gujarat)

## Structure of curriculum of T. Y. B. Sc. (Subject Name)

### Semester V

Discipline	Course Type	Course Code	Course title	Credits	Hours/week (Clock hours)	Total Teaching hours	Marks (Total 100)	
							CA	UA
DSC	Core I	XY-501		3	3	45	40	60
	Core II	XY-502		3	3	45	40	60
	Core III	XY-503		3	3	45	40	60
	Core IV	XY-504		3	3	45	40	60
DSC Skill Enhancement Course (SEC)	Skill Based	XY-505		3	3	45	40	60
DSC Elective course	Elective Course (Any one)	XY-506 (A)		3	3	45	40	60
		XY-506 (B)						
DSC	Core (Practical)	XY-507		2	4 (per batch)	60	40	60
		XY-508		2	4 (per batch)	60	40	60
		XY-509		2	4 (per batch)	60	40	60
Non Credit Audit Course	Elective audit course (Any one)	AC-501 : A	NSS	No credit	2	30	100	--
		AC-501 : B	NCC					
		AC-501 : C	Sports					

### Semester VI

Discipline	Course Type	Course Code	Course title	Credits	Hours/week (Clock hours)	Total Teaching hours	Marks (Total 100)	
							CA	UA
DSC	Core I	XY-601		3	3	45	40	60
	Core II	XY-602		3	3	45	40	60
	Core III	XY-603		3	3	45	40	60
	Core IV	XY-604		3	3	45	40	60
DSC Skill Enhancement Course (SEC)	Skill Based	XY-605		3	3	45	40	60
DSC Elective Course	Elective Course (Any one)	XY-606 (A)		3	3	45	40	60
		XY-606 (B)						
DSC	Core (Practical)	XY-607		2	4 (per batch)	60	40	60
		XY-608		2	4 (per batch)	60	40	60
		XY-609		2	4 (per batch)	60	40	60

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3



Principal  
 MGSM's Arts, Science & Commerce College  
 Chopta, Dist. Jalgaon, SR



**Kavayitri Bahinabai Chaudhari North  
Maharashtra University, Jalgaon**



**Structure of Syllabus  
Program B. Sc.**

**T. Y. B. Sc. (Biotechnology)**

**Choice Based Credit System (CBCS)**

**(2020-21)**

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3-A

DR. J. P. M. L.  
Maharaja Chhatrapati Shahu Maharaj  
Arts, Commerce & Management College  
Ghepari Tal. District Jalgaon (S)



## Structure of Curriculum of T.Y.B.Sc. (Biotechnology) Semester VI

Discipline	Course Type	Course Code	Course Title	Credits	Hours/Week (Clock Hours)	Total Teaching hours	Marks	
							CA	UA
DSC	Core I	BT-601	Recombinant DNA Technology	3	3	45	40	60
	Core II	BT-602	Plant Biotechnology	3	3	45	40	60
	Core III	BT-603	Immunology	3	3	45	40	60
	Core IV	BT-604	Bioprocess Technology	3	3	45	40	60
SEC	Skill Based	BT-605	Pharmaceutical Biotechnology	3	3	45	40	60
DSE	Elective course (Anyone)	BT-606 A	Environmental Biotechnology-II	3	3	45	40	60
		BT-606 B	Biostatistics					
DSC	Core (Practical)	BT-607	Practical Course: Plant Biotechnology	2	4 / batch	60	40	60
		BT-608	Practical Course: Genetics and Bioinformatics	2	4 / batch	60	40	60
		BT-609	Practical Course: Pharmaceutical Biotechnology	2	4 / batch	60	40	60
AU	Elective Audit Course	AC-601A	Soft Skill	No credit	2	30	100	-
		AC-601B	Yoga					
		AC-601C	Practicing Cleanliness					

**DSC:** Discipline Specific Core Courses/Core Practical

**SEC:** Skill Enhancement Course

**DSE:** Discipline Specific Elective Course

**AU :** Audit course

**CA :** College assessment (Internal examination)

**UA :** University assessment (External examination)



**ATTESTED**

T.Y.B.Sc. [Biotechnology] syllabus (CBCS), 2020-21, KBC North Maharashtra University, Jalgaon  
Page 7 of 46

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**PRINCIPAL**

Mahatma College, Anandhan Mandal's  
Arts, Science & Commerce College,  
MCGM's, Chhapda, Jalgaon (M.S.)

## Structure of Curriculum of T.Y.B.Sc. (Biotechnology) Semester V

Discipline	Course Type	Course Code	Course Title	Credits	Hours/Week (Clock Hours)	Total Teaching hours	Marks	
							CA	UA
DSC	Core I	BT-501	Genetics and Molecular Biology	3	3	45	40	60
	Core II	BT-502	Agriculture Biotechnology	3	3	45	40	60
	Core III	BT-503	Animal Tissue Culture	3	3	45	40	60
	Core IV	BT-504	Bioengineering	3	3	45	40	60
SEC	Skill Based	BT-505	Food Biotechnology	3	3	45	40	60
DSE	Elective Course (Anyone)	BT-506A	Environmental Biotechnology-I	3	3	45	40	60
		BT-506 B	Bioinformatics					
DSC	Core (Practical)	BT-507	Practical Course: Industrial Biotechnology	2	4 / batch	60	40	60
		BT-508	Practical Course: Animal Biotechnology and Immunology	2	4 / batch	60	40	60
		BT-509	Practical Course: Applied and Environmental Biotechnology	2	4 / batch	60	40	60
AU	Elective Audit Course	AC-501A	NSS	No credit	2	30	100	-
		AC-501B	NCC					
		AC-501C	Sports					

**DSC:** Discipline Specific Core Courses/Core Practical

**SEC:** Skill Enhancement Course

**DSE:** Discipline Specific Elective Course

**AU :** Audit course

**CA :** College assessment (Internal examination)

**UA :** University assessment (External examination)

**NCC:** National Cadet Corps

**NSS:** National Service Scheme



**ATTESTED**

**KAVAYITRI BAHINABAI CHAUDHARI NORTH  
MAHARASHTRA UNIVERSITY, JALGAON**

**Faculty of Science and Technology**



(NAAC Re-Accredited)

**SYLLABUS FOR CORE AND SKILL ENHANCEMENT**

**COUESES IN BOTANY**

**As Per U. G. C. Guidelines**

**Based on**

**Choice Based Credit System (CBCS)**

**T. Y. B. Sc. BOTANY SEMESTER - WISE SYLLABUS**

**(Theory and Practicals)**

**To Be Implemented From**

**Academic Year 2020 - 2021**



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**SEMESTER - V**

Discipline	Core Course Type	Course Code	Course Title	Credits	Total Hrs./ Week	Total Teaching Hrs.	Total Mark (100)	
							CA	UA
Discipline Specific Course (DSC)	Paper - I	BOT.501	Lower Cryptogams	3	3	45	40	60
	Paper - II	BOT.502	Morphology and Systematics of Angiosperms	3	3	45	40	60
	Paper -III	BOT.503	Cell Biology and Genetics	3	3	45	40	60
	Paper -IV	BOT.504	Plant Physiology and Biochemistry	3	3	45	40	60
DSC Skill Enhancement Course	Paper - V	BOT.505	Biofertilizer	3	3	45	40	60
DSC Elective Course (Any one)	Paper -VI	BOT.506 A	Analytical Techniques in Plant Sciences	3	3	45	40	60
		BOT.506 B	Horticulture	3	3	45	40	60
DSC Core Practicals	Practical I	BOT.507	Practicals Based on BOT.501 and BOT.505	4	4/Batch	60	40	60
	Practical II	BOT.508	Practicals Based on BOT.502 and BOT.506A or Bot.506B	4	4/Batch	60	40	60
	Practical III	BOT.509	Practicals Based on BOT.503 and BOT.504	4	4/Batch	60	40	60
Non-Credit Audit Course (Any One)	Paper-VII	AC-510	NSS	No Credit	2	30	100	--
		AC-511	NCC					
		AC-512	Sports					



**ATTESTED**

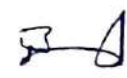
34

## SEMESTER - VI

Discipline	Core Course Type	Course Code	Course Title	Credits	Total Hrs./ Week	Total Teaching Hrs.	Total Marks (100)	
							CA	UA
Discipline Specific Course (DSC)	Paper-I	BOT.601	Higher Cryptogams	3	3	45	40	60
	Paper-II	BOT.602	Gymnosperms and Paleobotany	3	3	45	40	60
	Paper-III	BOT.603	Molecular Biology	3	3	45	40	60
	Paper-IV	BOT.604	Economic Botany	3	3	45	40	60
DSC Skill Enhancement Course	Paper- V	BOT.605	Floriculture	3	3	45	40	60
DSC Elective Course (Any one)	Paper-VI	BOT.606 A	Herbal Technology	3	3	45	40	60
		BOT.606 B	Plant Breeding	3	3	45	40	60
DSC Core Practicals	Practical I	BOT.607	Practicals Based on BOT.601 and BOT.605	4	4 /Batch	60	40	60
	Practical II	BOT.608	Practicals Based on BOT.602 and BOT.606A/Bot.566B	4	4/Batch	60	40	60
	Practical III	BOT.609	Practicals Based on BOT.603 and BOT.604	4	4/Batch	60	40	60
Non-Credit Audit Course (Any One)	Paper-VII	AC-610	Soft Skill	No Credit	2	30	100	--
		AC-611	Yoga					
		AC-612	Practicing Cleanliness					

*ATTESTED*



  
 PRINCIPAL  
 Chhatra Gram, Chhatra Mandal's  
 College of Science, Commerce  
 & Computer Studies, Jalgaon (M.S.)

**Kavayitri Bahinabai Chaudhari  
North Maharashtra University, Jalgaon**



**'A' Grade  
NAAC Re-Accredited  
(3<sup>rd</sup> Cycle)**

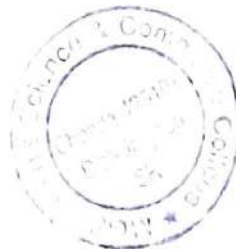
**Choice Based Credit System (CBCS)**

**Syllabus For**

**T.Y.B.Sc.**

**Computer Science**

**(With effect from June 2020)**



**ATTESTED**

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**Kavayitri Bahinabai Chaudhari  
North Maharashtra University, Jalgaon  
T.Y.B.Sc. (Computer Science)  
(w.e.f. June-2020)**

**Structure**

**Semester – VI**

Discipline	Course Type	Course Code	Course Title	Credits	Hours/Week (Clock Hours)	Total Teaching hours	Marks (Total 100)	
							CA	UA
DSC	Core I	CS - 601	Operating System	3	3	45	40	60
	Core II	CS - 602	R -DBMS	3	3	45	40	60
	Core III	CS - 603	Computer Network	3	3	45	40	60
	Core IV	CS - 604	Theoretical Computer Science	3	3	45	40	60
DSC Skill Enhancement Course (SEC)	Skill Based	CS - 605	Python Programming - II	3	3	45	40	60
DSC Elective Course	Elective Course (Any One)	CS - 606 (A)	Elective -A Web Programming using ASP.NET	3	3	45	40	60 60
		CS - 606 (B)	Elective -B JAVA Programming-II					
DSC	Core (Practical)	CS - Lab - 607	Lab on Python Programming II	2	4 (per batch)	60	40	60
		CS - Lab 608	Lab on RDBMS	2	4 (per batch)	60	40	60
		CS - Lab 609	Elective -A Lab on ASP.NET	2	4 (per batch)	60	40	60
			Elective -B Lab on JAVA Programming II					
Non Credit Audit Course	Elective Audit Course (Any One)	AC - 601 (A)	Soft Skill	No Credit	2	30	100	----
		AC - 601 (B)	Yoga					
		AC - 601 (C)	Practicing Cleanliness					

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34  
**PRINCIPAL**

**Kavayitri Bahinabai Chaudhari  
North Maharashtra University, Jalgaon  
T.Y.B.Sc. (Computer Science)  
(w.e.f. June-2020)**



**Structure**

**Semester – V**

Discipline	Course Type	Course Code	Course Title	Credits	Hours/Week (Clock Hours)	Total Teaching hours	Marks (Total 100)	
							CA	UA
DSC	Core I	CS - 501	System Programming	3	3	45	40	60
	Core II	CS - 502	Database Management System	3	3	45	40	60
	Core III	CS - 503	Software Engineering	3	3	45	40	60
	Core IV	CS - 504	Computer Aided Graphics	3	3	45	40	60
DSC Skill Enhancement Course (SEC)	Skill Based	CS - 505	Python Programming - I	3	3	45	40	60
DSC Elective Course	Elective Course (Any One)	CS - 506 (A)	Elective -A Internet Programming using PHP	3	3	45	40	60
		CS - 506 (B)	Elective -B JAVA Programming-I					
DSC	Core (Practical)	CS - Lab - 507	Lab on Python Programming - I	2	4 (per batch)	60	40	60
		CS - Lab 508	Lab on Computer Aided Graphics	2	4 (per batch)	60	40	60
		CS - Lab 509	Elective -A Lab on Internet Programming using PHP	2	4 (per batch)	60	40	60
			Elective -B Lab on JAVA Programming -I					
Non Credit Audit Course	Elective Audit Course (Any One)	AC - 501 (A)	NSS	No Credit	2	30	100	---
		AC - 501 (B)	NCC					
		AC - 501 (C)	Sport					

INTERESTED

2/1

PRINCIPAL  
Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon



**Faculty of Science and Technology**

**Kavayitri Bahinabai Chaudhari  
North Maharashtra University, Jalgaon**



1990  
'A' Grade  
NAAC Re-Accredited  
(3<sup>rd</sup> Cycle)

**Syllabus  
For**

**T. Y. B.Sc. (Electronics)**

***(As per Choice Based Credit System)***

***(With effect from June - 2020)***

**ATTESTED**

**31**

**PRINCIPAL**

**Mahatma Gandhi Shikshan Mandal's  
Arts, Science & Commerce College,  
Chopda Tal. Chopda Dist-Jalgaon(M.S.)**



# KBC North Maharashtra University, Jalgaon

Class: T. Y. B. Sc.

Subject: Electronics

Choice Base Credit System (With effect from June 2020)

The Board of Studies in Electronics in its meeting has unanimously accepted the revised syllabus (as per CBCS pattern) prepared by different committees, discussed, and finalized for T.Y.B.Sc. The titles of the papers for T.Y.B.Sc. (Electronics) are as given below:

## Structure of curriculum of T. Y. B. Sc. (Electronics)

### Semester V

Discipline	Course Type	Course Code	Course title	Credits	Hours/week (Clock hours)	Total Teaching hours	Marks (Total 100)	
							CA	UA
DSC	Core I	ELE-501	Semiconductor Electronics	3	3	45	40	60
	Core II	ELE -502	Advanced Digital System Design using VHDL	3	3	45	40	60
	Core III	ELE-503	Advanced Microprocessors	3	3	45	40	60
	Core IV	ELE-504	Electronic Instrumentation	3	3	45	40	60
DSC Skill Enhancement Course (SEC)	Skill Based	ELE-505	Medical Electronics	3	3	45	40	60
DSC Elective course	Elective Course (Any one)	ELE-506 (A)	Embedded C	3	3	45	40	60
		ELE-506 (B)	Basics Fiber Optic Communication					
DSC	Core (Practical)	ELE-507	Practical Lab I	2	4 (per batch)	60	40	60
		ELE-508	Practical Lab II	2	4 (per batch)	60	40	60
		ELE-509	Project Part I	2	4 (per batch)	60	40	60
Non Credit Audit Course	Elective audit course (Any one)	AC-501 : A	NSS	No credit	2	30	100	-
		AC-501 : B	NCC					
		AC-501 : C	Sports					



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 34  
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 Art, Science & Commerce College,  
 Chopda Tal-Chopda Dist-Jalgaon(M.S.)

## Semester VI

Discipline	Course Type	Course Code	Course title	Credits	Hours/week (Clock hours)	Total Teaching hours	Marks (Total 100)	
							CA	UA
DSC	Core I	ELE-601	Power Electronics	3	3	45	40	60
	Core II	ELE-602	Consumer Electronics	3	3	45	40	60
	Core III	ELE-603	Microprocessor Interfacing Techniques	3	3	45	40	60
	Core IV	ELE-604	Computer Network	3	3	45	40	60
DSC Skill Enhancement Course (SEC)	Skill Based	ELE-605	Embedded Systems	3	3	45	40	60
DSC Elective Course	Elective Course (Any one)	ELE-606 (A)	Electrodynamics	3	3	45	40	60
		ELE-606 (B)	Antenna & Wave Propagation					
DSC	Core (Practical)	ELE-607	Practical Lab I	2	4 (per batch)	60	40	60
		ELE-608	Practical Lab II	2	4 (per batch)	60	40	60
		ELE-609	Project Part II	2	4 (per batch)	60	40	60
Non Credit Audit Course	Elective audit course (Any one)	AC-601 : A	Soft skill	No credit	2	30	100	--
		AC-601 : B	Yoga					
		AC-601 : C	Practicing Cleanliness					

CA: Class assessment (Internal examination); UA: University assessment

**Note: The Study tour: Industrial visit/Research lab visit is compulsory for the students of T.Y.B.Sc. (Electronics)**



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**KAVAYITRI BAHINABAI CHAUDHARI NORTH  
MAHARASHTRA UNIVERSITY, JALGAON**



**SYLLABUS FOR  
T.Y. B. Sc. (MATHEMATICS)**

**UNDER CHOICE BASED CREDIT SYSTEM (CBCS)**

**Effective from June 2020-2021**



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Mahatma Gandhi Shikshan Mandal's  
Arts, Science & Commerce College,  
Chopda Tal-Chopda Dist-Jalgaon(M.S.)



**KAVAYITRI BAHINABAI CHAUDHARI  
NORTH MAHARASHTRA UNIVERSITY, JALGAON**

**Syllabus for T. Y. B. Sc. (Mathematics)  
Under Choice Based Credit System (CBCS)  
Effective from June 2020**

**Course Structure:** Six semester course with continuous evaluation of external and internal examinations in 60:40 pattern.

Discipline	Course Type	Course code	credits	Hours per week	Total Teaching Hours
<b>Semester-V</b>					
DSC	Core I	MTH - 501	3	3	45
	Core II	MTH - 502	3	3	45
	Core III	MTH - 503	3	3	45
	Core IV	MTH - 504	3	3	45
DSC Skill Enhancement course (SEC)	Skill based	MTH - 505	3	3	45
DSC Elective course	Elective course (Any one)	MTH - 506(A)	3	3	45
		MTH - 506(B)	3	3	45
DSC	DSC Practical	MTH - 507	2	4 (Per batch)	60
		MTH - 508	2	4 (Per batch)	60
		MTH - 509	2	4 (Per batch)	60
Non-Credit Course	Elective Audit Course (Any one)	AC-601(A)	Non-credit	2	30
		AC-601(B)	Non-credit	2	30
		AC-601(C)	Non-credit	2	30
<b>Semester-VI</b>					
DSC	Core I	MTH - 601	3	3	45
	Core II	MTH - 602	3	3	45
	Core III	MTH - 603	3	3	45
	Core IV	MTH - 604	3	3	45
DSC Skill Enhancement course (SEC)	Skill based	MTH - 605	3	3	45
DSC Elective course	Elective course(Any one)	MTH - 606(A)	3	3	45
		MTH - 606(B)	3	3	45
DSC	DSC Practical	MTH - 607	2	4 (Per batch)	60
		MTH - 608	2	4 (Per batch)	60
		MTH - 609	2	4 (Per batch)	60



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*31*

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Chopda Tal-425107 Dist-Jalgaon(M.S.)

**Kavayitri Bahinabai Chaudhari**  
**North Maharashtra University, Jalgaon**



**Structure of Syllabus**

**Program B.Sc.**

**T. Y. B. Sc. (Microbiology)**

**Choice Based Credit System (CBCS)**

**2020-21**

**ATTESTED**

**FACULTY**  
Microbiology, Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon (M.S.)

## Structure of Curriculum of T. Y. B. Sc. (Microbiology) Semester V

Discipline	Course Type	Course Code	Course Title	Credits	Hours/Week (Clock Hours)	Total Teaching hours	Marks	
							CA	UA
DSC	Core I	MB-501	Microbial Genetics	3	3	45	40	60
	Core II	MB-502	Bioprocess Technology	3	3	45	40	60
	Core III	MB-503	Metabolism	3	3	45	40	60
	Core IV	MB-504	Basic Immunology	3	3	45	40	60
SEC	Skill Based	MB-505	Medical Microbiology I	3	3	45	40	60
DSE	Elective Course (Anyone)	MB-506A	Food Microbiology	3	3	45	40	60
		MB-506B	Pharmaceutical Quality Control and Quality Assurance					
DSC	Core (Practical)	MB-507	Methods in Medical Microbiology-I	2	4 (per batch)	60	40	60
		MB-508	Methods in Industrial Microbiology-I	2	4 (per batch)	60	40	60
		MB-509	Methods in Applied Microbiology-I	2	4 (per batch)	60	40	60
AU	Elective Audit Course (Anyone)	AC-501A	NCC	No credit	2	30	100	--
		AC-501B	NSS					
		AC-501C	Sports					

**DSC:** Discipline Specific Core Courses/Core Practical

**SEC:** Skill Enhancement Course

**DSE:** Discipline Specific Elective Course

**AU :** Audit course

**CA :** College assessment (Internal examination)

**UA :** University assessment (External examination)

**NCC:** National Cadet Corps

T.Y.B.Sc. [Microbiology] syllabus (CBCS), 2020-21, KBC North Maharashtra University, Jalgaon

Page 6 of 52



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3A

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Chopda Taluqa, Dist-Jalgaon (M.S.)



## Structure of Curriculum of T.Y.B.Sc. (Microbiology) Semester VI

Discipline	Course Type	Course Code	Course Title	Credits	Hours/Week (Clock Hours)	Total Teaching hours	Marks	
							CA	UA
DSC	Core I	MB-601	Molecular Biology	3	3	45	40	60
	Core II	MB-602	Fermentations	3	3	45	40	60
	Core III	MB-603	Enzymology	3	3	45	40	60
	Core IV	MB-604	Advanced Immunology	3	3	45	40	60
SEC	Skill Based	MB-605	Medical Microbiology-II	3	3	45	40	60
DSE	Elective Course (Anyone)	MB-606A	Agricultural Microbiology	3	3	45	40	60
		MB-606B	Regulatory Practices & IPR					
DSC	Core (Practical)	MB-607	Methods in Medical Microbiology-II	2	4 (per batch)	60	40	60
		MB-608	Methods in Industrial Microbiology-II	2	4 (per batch)	60	40	60
		MB-609	Methods in Applied Microbiology-II	2	4 (per batch)	60	40	60
AU	Elective Audit Course (Anyone)	AC-601A	Soft Skill	No credit	2	30	100	-
		AC-601B	Yoga					
		AC-601C	Practising cleanliness					

**DSC:** Discipline Specific Core Courses/Core Practical

**SEC:** Skill Enhancement Course

**DSE:** Discipline Specific Elective Course

**AU :** Audit course

**CA :** College assessment (Internal examination)

**UA :** University assessment (External examination)



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Art's, Science & Commerce College  
Chopda Tal-Chopda Dist. Jalgaon



**FACULTY OF SCIENCE & TECHNOLOGY  
KAVAYITRI BAHINABAI CHAUDHARI NORTH  
MAHARASHTRA UNIVERSITY, JALGAON**



**'A' Grade  
NAAC Re-Accredited  
(3rd Cycle)**

**SYLLABUS  
FOR  
T. Y. B. Sc. (PHYSICS)**

**(AS PER CHOICE BASED CREDIT SYSTEM PATTERN OF UGC)**


**(With effect from June - 2020)**

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Mahatma Jyotiba Phule North Maharashtra  
University, Kavayitri Bahinabai Chaudhari  
College,  
Chopda, Dist. Jalgaon, Maharashtra





**BOS (PHYSICS)-Faculty of Science & Technology**  
**Kavayitri Bahinabai Chaudhari**  
**North Maharashtra University, Jalgaon**  
 Class: T. Y. B. Sc. Subject: Physics  
 Choice Base Credit System (With effect from June 2020)

The Board of Studies in Physics has unanimously accepted the revised syllabus (as per CBCS pattern) prepared by different committees, discussed and finalized in the **Online Workshop on Curriculum Development in Physics at T. Y. B. Sc.** held on 15<sup>th</sup> and 16<sup>th</sup> May 2020.

The titles of the papers for T.Y.B.Sc. (Physics) are as given below:

Sem	Course type	Course code	Course title	Credits	Total hrs /week	Total teaching periods	Total marks		
							CA	UA	
V	Discipline specific Course (DSC)	PHY 501	Mathematical Physics	3	3	45	40	60	
		PHY502	Solid State Physics	3	3	45	40	60	
		PHY 503	Atomic and molecular physics	3	3	45	30	60	
		PHY 504(A) Or PHY 504(B)	Electronics-II Or Instrumentation -II	3	3	45	40	60	
	Skill Enhancement course (SEC)	PHY 505	Solar Energy and applications	3	3	45	40	60	
	DSE Elective course (Any one)	PHY 506(A) PHY 506(B)	Technical Electronics- I or Refrigeration and Air conditioning- I or Vacuum Technology-I or Microprocessor-I or Programming in C++ I	3	3	45	40	60	
		PHY 506(C) PHY 506(D) PHY 506 (E)							
		DSC CORE Practicals	PHY 507	Physics Practical I	2	4 (per batch)	60	40	60
			PHY 508	Physics Practical II	2	4 (per batch)	60	40	60
			PHY 509	Physics Practical III or Project	2	4 (per batch)	60	40	60
	Non credit audit course (Any one)	AC 501(A)	NCC	No credit	2	30	100		
		AC 501(B)	NSS						
		AC 501 (C)	Sports						
			<b>Total credit</b>	<b>24</b>					

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Sem	Course type	Course code	Course title	Credits	Total hrs /week	Total teaching periods	Total marks	
							CA	UA
VI	Discipline specific Course (DSC)	PHY 601	Quantum mechanics	3	3	45	40	60
		PHY602	Material Science	3	3	45	40	60
		PHY 603	Nuclear Physics	3	3	45	30	60
		PHY 604	Modern Physics	3	3	45	40	60
	Skill Enhancement course (SEC)	PHY 605	Basic Instrumentation Skills	3	3	45	40	60
	DSE Elective course (Any one)	PHY 606 (A) PHY 606 (B) PHY 606 (C) PHY 606 (D) PHY 606 (E)	Technical Electronics- I or Refrigeration and Air conditioning- II or Vacuum Technology-II or Microprocessor-I or Programming in C++ II	3	3	45	40	60
	DSC CORE Practicals	PHY 607	Physics Practical I	2	4 (per batch)	60	40	60
		PHY 608	Physics Practical II	2	4 (per batch)	60	40	60
		PHY 609	Physics Practical III or Project	2	4 (per batch)	60	40	60
	Non credit audit course (Any one)	AC 601(A)	Soft skill	No credit	2	30	10	0
		AC 601(B)	Yoga					
		AC 601(C)	Practicing Cleanliness					
				<b>Total credit</b>	<b>24</b>			

Note: The industrial/study tour is compulsory for students of T. Y. B. Sc. (Physics).



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38

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