

Yashwantrao Chavan Maharashtra Open University, Nashik  
(Established by Government of Maharashtra)



## **SCHOOL OF HEALTH SCIENCES**

**B.Sc Industrial Drug Sciences (P 38)**

**PROSPECTUS (2011-12)**

## **About the School of Health Sciences:**

The School of health Science was started in May 2003 to address the gaps in primary health care training both public and private sector in the state of Maharashtra. It may be pertinent to note that the Maharashtra Health Sciences University in Nashik has a different role of supporting conventional graduate and postgraduate education in medical and nursing sciences.

The School of Health Sciences on the contrary will address to the needs of primary care workers and through Open and Distance learning mechanism. The School has thus a unique role of not only filling gaps in mainstream medical education but of creating new opportunities in paramedic sector and alternative healing systems.

Thus said, it also has a potential player in continuous medical education of graduate and postgraduate doctors and nurses.

Beyond the health care providers listed above, the School serves the needs of health care consumers, disadvantaged communities and at risk groups. Finally, the school has an agenda with rural health care, of correcting the paucity of health care providers in rural areas.

## **Vision**

*Health for All* through Primary Health Care through Open & Distance Learning systems.

## **Mission**

Health development through ODL

- Provide academic support for primary health care workers, paramedic assistants in all sectors-public, private, corporate and voluntary, rural and urban, NGO networks.
- Need based health education programmes for at –risk groups and communities.

Programmes offered through School of Health Sciences

### ❖ **Certificate Programmes**

- (Patient Assistant)Rugnasahayak (Marathi Medium)
- Arogyamitra (Marathi Medium)
- Dai Prashikshan (Marathi Medium)
- Gruh- Rugnasahayak (Marathi Medium)

### ❖ **Diploma Programmes**

- Diploma in Medical Lab Technology
- Yogashikshak (Marathi/English Medium)
- Diploma in Ophthalmic Technical Assistant
- Diploma in Medical records
- Diploma in CT and MRI Technology

### ❖ **Graduate Programmes**

- B. Sc (MLT)
- B. Sc (Optometry)
- B. Sc (Industrial Drug Science)

### ❖ **Postgraduate Programmes**

- PG Diploma in Hospital and Healthcare Management
- Master of Public Health

### **B.Sc Industrial Drug Sciences (P 38)**

B.Sc Industrial Drug Sciences (BSC IDS) is an 100 credit undergraduate programme. This program aims create skilled and trained manpower to the growing Pharma sector. Pharma Sector is growing in demand in the country, many corporate working in this sector facing shortage of skilled manpower to work on floors of Pharmaceutical manufacturing plant; to fill this gap in demand of Skilled man force School of Health Sciences, Yashwantrao Chavan Maharashtra Open University, Nashik has started this programme.

#### **Objectives:**

1. To develop skills and competencies in Pharma Sector in today's rapidly changing Manufacturing scenario.
2. Student will be enrolled as per Learn and Earn Scheme.
3. Carry out experiments in labs and can have hands on training of what they have learnt in labs.
4. Use computers for statistical analysis and report generation
5. Self empowerment of the students from the weaker section of the society.
6. Student can avail the facilities provided by the corporate such as free residential facility with handsome monthly stipend.

#### **Programme features**

- B.Sc Industrial Drug Sciences would be using full time mode.
- This program has developed to get entry for the 12 th Science student in growing Pharma Sector for exploring better future prospectus.

#### **Eligibility**

12 th Science passed

#### **Intake Capacity**

120 seats

#### **Admission Process**

Admission to this programme is through personal interview and writer test.

#### **Duration**

The duration of program is 3 years.

#### **Admissions**

<b>Sr. No.</b>	<b>Details</b>	<b>Schedule.</b>
1	Duration	July to May
2	Forms and Prospectus Availability	June-July
3	Last Day of Enrolment at Study centre	31 July
	A] With a late fee of Rs 200.00	16 <sup>th</sup> August
4	Counselors Training	September
5	Duration of the Counseling	August - May
6	Internal Assessment	April
7	Written examination	May - June
8	Result	July

## Fee Details

	Programme fee (in Rs.)	For Maharashtra (in Rs.)
1	University fee per student	12000.00

## Study Centers:

Sr. No	Name of Study Centre	Programme Name	Programme Code	Coordinator	Study Centre Code
1	Lupin Limited, T-142, MIDC, Tarapur-401506	BSC IDS (API)	P 38	Mr. Farooq Shaikh	35241
2	Lupin Limited, B 15, Phase 1 A, Verna Industrial Area, Verna, Salcette, Goa	BSC IDS (Formulation)	P 38	Mr. Abhinav Shrivastav	9398 A

## List of Necessary documents

- Bank challan copy of Rs 12000.00
- Attested photocopies of HSC mark sheet
- Attested photocopy of a certificate as to the proof of Date of Birth (preferably the High School Leaving Certificate)
- A copy of work experience if applicable
- 1 copy of Passport size photographs pasted to the Registration form
- Proof of change in name in case of married woman i.e. photocopy of Gazette

Program fee includes examination fee.

The YCMOU would be providing reading material for each subject.

**B.Sc Industrial Drug Sciences API (P 38)****Programme Structure of (API Plant)**

Sr. No.	Course Code	Course Title	Theory / Practical	Credit Points	
<b>First Year</b>	HSC 231	Functional English	Theory	2	
	HSC 232	Organic Chemistry	Theory Practical	8 4	
	HSC 233	Physical and Analytical Chemistry	Theory Practical	8 4	
	HSC 234	Computer Applications	Practical	4	
<b>Second Year</b>	HSC 241	Unit Operations -I	Theory	8	
	HSC 242	Advanced Analytical Techniques	Theory Practical	8 4	
	HSC 243	Stoichiometry	Theory	8	
	HSC 244	GMP/ Regulatory Affairs/ Industrial Safety I	Theory	4	
	HSC 245	Introductory Medicinal Chemistry	Theory Practical	2 2	
	<b>Third Year</b>	HSC 251	Unit Operations- II	Theory Practical	8 4
		HSC 252	GMP/ Regulatory Affairs/ Industrial Safety II	Theory	4
	HSC 253	Costing and Inventory Management	Theory	4	
	HSC 256	Process Development & Quality Control	Theory Practical	8 4	

**B.Sc Industrial Drug Sciences API (P 38)****Programme Structure of (Formulation Plant)**

Sr. No.	Course Code	Course Title	Theory / Practical	Credit Points
<b>First Year</b>	HSC 231	Functional English	Theory	2
	HSC 233	Physical and Analytical Chemistry	Theory Practical	8 4
	HSC 234	Computer Applications	Practical	4
	HSC 235	Pharmaceutical Engineering I	Theory Practical	8 4
<b>Second Year</b>	HSC 242	Advanced Analytical Techniques	Theory Practical	8 4
	HSC 244	GMP/ Regulatory Affairs/ Industrial Safety I	Theory	4
	HSC 246	Pharmaceutical Engineering II	Theory	8
	HSC 247	Pharmaceutics-I	Theory	8
	<b>Third Year</b>	HSC 252	GMP/ Regulatory Affairs/ Industrial Safety II	Theory
HSC 253		Costing and Inventory Management	Theory	4
HSC 254		Pharmaceutics-II	Theory Practical	8 4
HSC 255		Pharmaceutics-III	Theory Practical	8 4

### **General Examination Structure for B.Sc Industrial Drug Sciences (P 38)**

Evaluation will be made both internal assessment for Practical and Theory Examination by YCMOU. Student must secure at least 40% in internal and YCMOU assessment each. Student will be declared successful in theory and practical only if he/she scores 40% marks in the internal and YCMOU assessment in each papers/ assignment.

Theory examination would be conducted during May –June every year.

Course Codes		YCMOU		Internal		Total	
		Theory		Practical Assignment			
		Total Marks	Passing Marks	Total Marks	Passing Marks	Total Marks	Passing Marks
HSC 231	Functional English			50	20	50	20/50
HSC 232	Organic Chemistry	70	28	30	12	100	40/100
HSC 233	Physical and Analytical Chemistry	70	28	30	12	100	40/100
HSC 234	Computer Applications			50	20	50	20/50
HSC 235	Pharmaceutical Engineering I	70	28	30	12	100	40/100
HSC 241	Unit Operations -I	70	28			70	28/70
HSC 242	Advanced Analytical Techniques	70	28	30	12	100	40/100
HSC 243	Stoichiometry	70	28			70	28/70
HSC 244	GMP/ Regulatory Affairs/ Industrial Safety I	50	20			50	20/50
HSC 245	Introductory Medicinal Chemistry	30	12	20	8	50	20
HSC 246	Pharmaceutical Engineering II	70	28			70	28/70
HSC 247	Pharmaceutics-I	70	28			70	28/70
HSC 251	Unit Operations- II	70	28	30	12	100	40/100
HSC 252	GMP/ Regulatory Affairs/ Industrial Safety II	50	20			50	20/50
HSC 253	Costing and Inventory Management	50	20			50	20/50
HSC 254	Pharmaceutics-II	70	28	30	12	100	40/100
HSC 255	Pharmaceutics-III	70	28	30	12	100	40/100
HSC 256	Process Development & Quality Control	70	28	30	12	100	40/100

Reference books for this programme-

1. Remington the Science and Practice of Pharmacy volume II, 21<sup>st</sup> edition, Lippincott Williams and Wilkins Publication, USA, 2006.
2. The Merck Index, An Encyclopedia of Chemicals, Drug and Biologicals, Merck Research Lab, 2001.
3. The United States Pharmacopoeia XXIII, The National Formulary XVIII, Asian edition, The United States Pharmacopoeia Commission, Inc.12601, Twinbrook Parkway Rockville M. D. 2000.
4. The Indian Pharmacopoeia, The Indian Pharmacopoeial commission, Ministry of Health and Family Welfare, Govt of India, 7<sup>th</sup> edition, controller of Publication, New Delhi, 2007.
5. The British Pharmacopoeia, Her Majesty's Stationary office, London 2002

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## Examination and Assessment

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1. Theory exams will be conducted at the end of each academic year i.e. in the month of May. Practical examination would be based on assignments.
2. If student fails in any Theory paper / Assignment he/she has to appear for that particular paper/ assignment in the next year. Supplementary (mid year) exam will not be conducted.
3. Failed student is liable to continue his/her program and can appear for the papers.
4. If student fails in any of the Theory paper / Assignment he/she will have to fill up the examination form accordingly and has to pay Rs.250 per theory paper through the bank challan.
5. Student can complete this degree program in maximum 6 years. In case of failure even after 6 years, he/she has to take fresh admission as per the fees structure offered at that particular time.

### Result Declaration and Certification –

1. Results of each yearly exam will be declared within 30 to 45 days of examination.
2. Study Centers have to submit all the internal assessment data of students to the University within time specified by the University usually the first week of April.

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## Contact Details

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### 1. Regarding student registration

Asst. Registrar, Registration Unit II, YCMOU

Ph no. 2230734, Ext. 3703, 2348

### 2. Regarding Examination and Results

Controller of Examination, YCMOU

Ph no. 2231714/15, Ext. 3813, 3814, 2344, 2349

### 3. For Academic correspondence

Director, School of Health Sciences

Yashwantrao Chavan Maharashtra Open University

Dnyan Gangotri, Near Gangapur Dam,

Nashik 422 222 MS, India.

Phone: +91-253-2230718

Fax: +91-253-2230718, (ATTN. Director, School of Health Sciences)

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23236154, 23232701, 23237721, 23234116  
23234733, 23232817, 23236736, 23230437



विश्वविद्यालय अनुदान आयोग  
बहादुरशाह जफर मार्ग  
नई दिल्ली-110 002  
UNIVERSITY GRANTS COMMISSION  
BAHADURSHAH ZAFAR MARG  
NEW DELHI-110 002

F1-52/2000(CPP-II)

April, 2004

The Registrar/Director  
of all the Indian Universities  
(Deemed, State, Central Universities/  
Institutions of National importance)

5 MAY 2004

Subject: Recognition of Degrees awarded by Open Universities.

Sir/Madam,

There are a number of open Universities in the country offering various degrees/diploma through the mode of non-formal education. The Open Universities ~~have been established in the country by an Act of Parliament or State Legislature in accordance with the provisions contained in Section 2(f) of University Grants Commission Act, 1956.~~ These universities are, therefore, empowered to award degrees in terms of Section 22(1) of the UGC Act, 1956.

A circular was earlier issued vide UGC letter N.F.1-8/92(CPP) dated February, 1992 mentioning that the Certificate, Diplomas and Degrees awarded by Indira Gandhi National Open University are to be treated equivalent to the corresponding awards of the Universities in the country.

Attention is further invited to UGC circular No.F1-25/93(CPP-II) dated 28<sup>th</sup> July, 1993 (copy enclosed) for recognition of degrees and diplomas as well as transfer of credit for courses successfully completed by students between the two types of universities so that the mobility of students from Open University stream to traditional Universities is ensured without any difficulty.

The UGC has specified the nomenclature of degrees under Section 22(3) of the UGC Act, 1956 to ensure mandatory requirements viz. minimum essential academic inputs required for awarding such degrees. A copy of Gazette Notification regarding specification of degrees issued vide No.1-52/97(CPP-II) dated 31st January 2004 is enclosed. The details are also given in UGC Web site: [www.ugc.ac.in](http://www.ugc.ac.in)

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## मुक्त विद्यापीठाच्या पदवी/पदविकांना महाराष्ट्र शासन मान्यता

विद्यापीठ अनुदान आयोगाने मान्यता दिलेली विद्यापीठे  
राज्य सेवेतील पदांसाठी पदवी/पदविकांस मान्यता

### महाराष्ट्र शासन सामान्य प्रशासन विभाग

शासन निर्णय : क्रमांक आरजीडी-१३९४/प्र.क. २१/९४/१३, मंत्रालय, मुंबई ४०० ०३२, दिनांक ८ मार्च १९९५

वाचा : (१) सामान्य प्रशासन विभाग, शासन निर्णय क्रमांक आरजीडी १०६१/१८९६७/९१४-जे दिनांक २१ ऑगस्ट १९६९

शासन निर्णय : महाराष्ट्र लोक सेवा आयोगाशी विचार विनिमय करून उपरोक्त दिनांक २१ ऑगस्ट १९६९ च्या आदेशाद्वारे असा निर्णय घेण्यात आला होती की, केंद्र अथवा राज्य विधिमंडळाच्या अधिनियमाद्वारे स्थापीत झालेली विद्यापीठे, संसदेच्या अधिनियमाद्वारे स्थापन झालेल्या इतर शैक्षणिक संस्था, किंवा विद्यापीठ अनुदान आयोग अधिनियम, १९५६ च्या अंतर्गत भाग ३ अन्वये जाहीर झालेली मानवी विद्यापीठे यांनी प्रदान केलेल्या पदव्या / पदविका तसेच भारतीय वैद्यकीय मंडळ अधिनियम, १९५६ च्या परिशिष्टांमध्ये अंतर्भूत केलेल्या वैद्यकीय व संलग्न विषयामधील पदव्या यांना शासकीय महाविद्यालयातील अध्यापकीय पदे वगळता, राज्यातील सेवा व पदांवरील भरतीसाठी आपोआप मान्यता प्राप्त झाली असल्याचे समजण्यात यावे.

(२) सदर आदेशासोबत विद्यापीठ अनुदान आयोगाने मान्यता दिलेल्या वैधानिक विद्यापीठे व संस्थांची यादी जोडण्यात आली होती. आयोग मान्यता प्राप्त विद्यापीठ व संस्था यांची अद्यावत यादी आता या आदेशासोबत जोडण्यात आली आहे. शासन निर्णय, सामान्य प्रशासन विभाग, क्रमांक आरजीडी १०६१/१८९६७/९१४-जे दिनांक २१ ऑगस्ट १९६९ मध्ये नमूद केलेल्या आणि वर परिच्छेद १ मध्ये उद्धृत केलेल्या हेतूसाठी सदर सर्व विद्यापीठे / संस्था यांनी प्रदान केलेल्या पदवी / पदविकांना आपोआप मान्यता देण्यात आल्याचे समजण्यात यावे.

महाराष्ट्राचे राज्यपाल यांच्या आदेशानुसार व नावाने

दा.र. राणे

अवर सचिव, महाराष्ट्र शासन

प्रति,

- |  |  |
|--|--|
| (०१) राज्यपालांचे सचिव                     | (०८) प्रबंधक, उच्च न्यायालय (मूळ न्याय शाखा), मुंबई                                |
| (०२) मुख्य मंत्र्यांचे सचिव                | (०९) प्रबंधक, उच्च न्यायालय (अपील शाखा), मुंबई                                     |
| (०३) सचिव, महाराष्ट्र लोक सेवा आयोग, मुंबई | (१०) प्रबंधक, लोक आयुक्त व उप लोक आयुक्त यांचे कार्यालय, मुंबई                     |
| (०४) महालेखापाल, महाराष्ट्र-१, मुंबई       | (११) सर्व मंत्रालयीन विभाग   |
| (०५) महालेखापाल, महाराष्ट्र-२, नागपुर      | (१२) मंत्रालयीन विभागांच्या निवृत्तपत्रावरील सर्व विभाग प्रमुख व कार्यालयीन प्रमुख |
| (०६) निवासी लेखा परीक्षा अधिकारी, मुंबई    | (१३) अवर सचिव, भारत सरकार, शिक्षण मंत्रालय, नवी दिल्ली                             |
| (०७) अधिदान व लेखा अधिकारी, मुंबई          | (१४) निवड समिती  |

वाचा : महाराष्ट्र शासनाच्या उपरोक्त शासन निर्णय क्रमांक आरजीडी-१३९४/प्र.क. २१/९४/१३, मंत्रालय, मुंबई ४०० ०३२, दिनांक ८ मार्च १९९५ च्या सोबत जोडलेल्या यादीमध्ये यज्ञवंतराव चव्हाण महाराष्ट्र मुक्त विद्यापीठ, नाशिक यांची अनुक्रमांक १४६ वर नोंद करण्यात आलेली आहे.

