



Establishment
27/11/1928

SNJB (Jain Gurukul's)

**K.K.H. Abad Arts, S.M.G. Lodha Commerce & S.P.H. Jain Science College
Neminagar, Chandwad-423101, Dist.-Nashik, Maharashtra**

(Affiliated to Savitribai Phule Pune University) Id. No.PU/NS/AC/015/1970

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DST-FIST Funded (2018-19)

UGC-NSQF Courses (B.Voc. & CC)

Best College Award by Savitribai Phule Pune University (2015-16)

1.2.2:Percentage of programs in which Choice Based Credit System
(CBCS)/Elective course system has been implemented.

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पुणे विद्यापीठ

दूरध्वनी क्रमांक :

०२०-२५६९१२३३

२५६०१२५७

२५६०१२५८

२५६०१२५९



शैक्षणिक विभाग

गणेशखिड, पुणे-४११००७.

टेलिग्राफ : 'पुणेपुणे'

फॅक्स : ०२०-२५६९१२३३

वेबसाइट : www.unipune.ac.in

ई-मेल : ityacademic@unipune.ac.in

दिनांक : ०९/०२/२०१३

संदर्भ क्र. : सी.बी.गस./ १२३

परिपत्रक क्र.— १२ / २०१३

विषय:— विज्ञान विद्याशाखेअंतर्गत सुधारित पदव्युत्तर पदवी (श्रेयांक पध्दत) अभ्यासक्रमाच्या आराखड्यास शैक्षणिक वर्ष २०१३-१४ पासून मान्यता देणेबाबत...

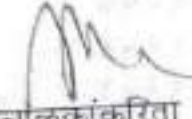
विद्यापीठ अधिकार मंडळाने घेतलेल्या निर्णयानुसार कळविण्यात येते की, विज्ञान विद्याशाखेअंतर्गत पुढील सुधारित पदव्युत्तर पदवी (श्रेयांक पध्दत) अभ्यासक्रमाच्या आराखड्यास शैक्षणिक वर्ष २०१३-१४ पासून मान्यता देण्यात येत आहे.

- 01) M.A./M.Sc. Mathematics
- 02) M.Tech. in Industrial Mathematics with Computer Applications
- 03) M.Sc. Statistics
- 04) M.Sc. Physics
- 05) M.Sc. Chemistry
- 06) M.Sc. Botany
- 07) M.Sc. Zoology
- 08) M.Sc. Geology
- 09) M.Sc. (Applied) Petroleum Technology
- 10) M.A./M.Sc. Geography
- 11) M.Sc. Microbiology
- 12) M.Sc. Computer Science
- 13) MCA (Science)
- 14) M.Sc., MCA, M.Tech (Computer Science) (For Dept.)
- 15) M.Sc. Environmental Science
- 16) P.G. B.Sc. (Applied) Analytical Techniques (Chemistry Dept.)
- 17) M.Sc. Electronic Science.
- 18) M.Sc. Biotechnology

सदरचे परिपत्रक पुणे विद्यापीठच्या www.unipune.ac.in या संकेत स्थळावर Circular --- Boards & Meetings Circular या शीर्षकाखाली उपलब्ध करण्यात आले आहे. याची सर्व संबंधितांनी नोंद घ्यावी.

उपनिर्देशन पत्र

मा. प्राचार्य, संलग्न महाविद्यालये व विभागप्रमुख, पुणे विद्यापीठ यांना विनंती की, सदर परिपत्रकाचा आशय सर्व संबंधित प्राध्यापक व विद्यार्थी यांच्या निदर्शनास आणून द्यावा.


संचालकांकरिता 9/2/2013
(म.वि.वि.मं.)

प्रत माहितीसाठी व पुढील योग्य त्या कार्यवाहीसाठी:-

१. मा. अधिष्ठाता, विज्ञान विद्याशाखा
२. मा. संचालक, बी.सी.यु.डी.
३. मा. विभागप्रमुख, विज्ञान विद्याशाखेअंतर्गत सर्व विभाग
४. मा. प्राचार्य, सर्व संलग्न महाविद्यालये
५. मा. संचालक, सर्व मान्यताप्राप्त संस्था
६. मा. परीक्षा नियंत्रक, पुणे विद्यापीठ
७. मा. संचालक, स्पर्धा परीक्षा केंद्र
८. मा. उपकुलसचिव, परीक्षा (१,२)
९. मा. सिस्टीम अॅनालिस्ट, डेटा प्रोग्रेसिंग युनिट
१०. मा. उपकुलसचिव, शैक्षणिक प्रवेश
११. मा. उपकुलसचिव, नियोजन व विकास
१२. मा. उपकुलसचिव, शैक्षणिक पात्रता
१३. मा. सहाय्यक कुलसचिव (परीक्षा समन्वय)
१४. मा. सहाय्यक कुलसचिव (परीक्षा-एस.अॅण्ड टी. विभाग)
१५. मा. उपकुलसचिव (गोपनीय कक्ष)
१६. मा. संचालक (परदेशी विद्यार्थी केंद्र)
१७. मा. सहाय्यक कुलसचिव (सभा दफ्तर)
१८. मा. वरिष्ठ कायदा अधिकारी
१९. मा. जनसंपर्क अधिकारी
२०. मा. कक्षाधिकारी (बहिःस्थ)
२१. मा. सहाय्यक कुलसचिव (संलग्नता)
२२. मा. प्रमुख, विद्यापीठ उपकेंद्र : अहमदनगर, नाशिक.

संदर्भ क्र. :- मा. विद्यापरिषद ठराव क्र. व २७पीए / १२/१२,
दि. १८ डिसेंबर, २०१२

पुणे विद्यापीठ

दूरध्वनी क्रमांक :

०२०-२५६९१२३३

५६०१२५७

५६०१२५८

५६०१२५९



शैक्षणिक विभाग

गणेशखिंड, पुणे-४११ ००७

टेलिग्राफ : 'युनिपुणे'

फॅक्स : ०२०-२५६९१२३३

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dycademic@unipune.ac.in

दिनांक : १५/१२/२०१४

संदर्भ क्र. : २१०१४२५/१७१७

परिपत्रक क्र.— १२२/२०१४

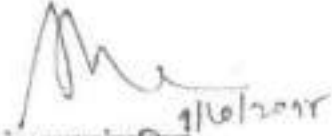
विषय:— विज्ञान विद्याशाखेअंतर्गत विविध अभ्यासमंडळांच्यापुढे नमूद केलेल्या पदव्युत्तर पदवी (M.A./M.Sc.) विषयांच्या (क्रेडिट सिस्टीम) सुधारित अभ्यासक्रमास शैक्षणिक वर्ष २०१४-१५ पासून मान्यता देण्याबाबत...

विद्यापीठ अधिकार मंडळाने घेतलेल्या निर्णयानुसार कळविण्यात येते की, विज्ञान विद्याशाखेअंतर्गत पुढील विविध अभ्यासमंडळांच्यापुढे नमूद केलेल्या द्वितीय वर्ष पदव्युत्तर पदवी (M.A./M.Sc.) विषयांच्या सुधारित अभ्यासक्रमास शैक्षणिक वर्ष २०१४-१५ पासून मान्यता देण्यात येत आहे.

| Sr. No. | Subject | Syllabi Details |
|---------|-------------|--|
| 1 | Mathematics | 1) M.A./M.Sc. II Mathematics (For College) 2) M. Tech. (II Year) Industrial Mathematics with Computer Applications (For College) 3) M.A./M.Sc. I Mathematics (For Dept.) 4) M. Tech. (I Year) Industrial Mathematics with Computer Applications (For Dept.) |
| 2 | Statistics | 1) M.A./M.Sc. II Statistics (For College) 2) M.A./M.Sc. II Statistics (For Dept.) |
| 3 | Physics | 1) M.Sc. I Physics (For College) 2) M.Sc. II Physics (For College) 3) Basics of Measurement and Measuring Instruments (6 Credit Course) (For Dept.) |
| 4 | Chemistry | 1) M.Sc. I Chemistry (For College) 2) M.Sc. II Chemistry (For College) 3) M.Sc. II Chemistry (For Dept.) 4) M.Sc. II Medicinal Chemistry (For Dept.) |

| | | |
|----|-----------------------|--|
| 5 | Botany | 1) M.Sc. II Botany (For College) 2) M.Sc. I & II Wine, Brewing and Alcohol Technology (For College) 3) M.Sc. I & II Botany (For Dept.) |
| 6 | Zoology | M.Sc. II Zoology (For College) |
| 7 | Geology | 1) M.Sc. II Geology (For College) 2) M.Sc. II Petroleum Technology (For College) |
| 8 | Geography | 1) M.A./M.Sc. II Geography (For College) 2) M.A./M.Sc. I & II Geography (For Dept.) 3) M.A./M.Sc. I & II Geoinformatics (For Dept.) 4) P.G.B.Sc. (Applied) in GIS and Remote Sensing (For Dept.) |
| 9 | Microbiology | 1) M.Sc. II Microbiology (For College) 2) M.Sc. I Biodiversity (For College) |
| 10 | Computer Science | 1) M.Sc. II Computer Science (For College) 2) M.C.A. II Science (For College) |
| 11 | Electronic Science | M.Sc. II Electronic Science (For College) |
| 12 | Biotechnology | M.Sc. II Biotechnology (For College) |
| 13 | Environmental Science | M.Sc. II Environmental Science (For College & Dept) |
| 14 | Communication Studies | M.Sc. II Communication Studies (For College & Dept.) |
| 15 | Biochemistry | M.Sc. II Biochemistry (For College and Dept.) |

मा. प्राचार्य, संलग्न महाविद्यालये व मा. विभागप्रमुख, पुणे विद्यापीठ यांना विनंती की, सदर परिपत्रकाचा आशय सर्व संबंधित प्राध्यापक व विद्यार्थी यांच्या निदर्शनास आणून द्यावा.


संचालकांकरिता
(म.वि.वि.मं.)

प्रत माहितीसाठी व पुढील योग्य त्या कार्यवाहीसाठी:—

१. मा. अधिष्ठाता, विज्ञान विद्याशाखा
२. मा. संचालक, बी.सी.यु.डी., पुणे विद्यापीठ
३. मा. विभागप्रमुख, विज्ञान विद्याशाखेअंतर्गत सर्व विभाग
४. मा. प्राचार्य, सर्व संलग्न महाविद्यालये
५. मा. संचालक, सर्व मान्यताप्राप्त संस्था
६. मा. परीक्षा नियंत्रक, पुणे विद्यापीठ
७. मा. संचालक, स्पर्धा परीक्षा केंद्र
८. मा. संचालक (परदेशी विद्यार्थी केंद्र)

९. उपकुलसचिव, परीक्षा (१,२)
१०. सिस्टीम ऑनॅलिस्ट, डेटा प्रोग्रेसिंग युनिट
११. सहायक कुलसचिव, शैक्षणिक प्रवेश
१२. उपकुलसचिव, नियोजन व विकास
१३. उपकुलसचिव, शैक्षणिक पात्रता
१४. उपकुलसचिव (परीक्षा समन्वय)
१५. सहाय्यक कुलसचिव (परीक्षा-एस.ऑण्ड टी. विभाग)
१६. उपकुलसचिव (गोपनीय कक्ष)
१७. सहाय्यक कुलसचिव (सभा दफ्तर)
१८. वरिष्ठ कायदा अधिकारी
१९. जनसंपर्क अधिकारी
२०. सहायक कुलसचिव (संलग्नता)
२१. कक्षाधिकारी (बहिःस्थ)
२२. प्रमुख, विद्यापीठ उपकेंद्र : अहमदनगर, नाशिक.

संदर्भ क्र. :- मा. विद्यापरिषद ठराव क्र.

ब १४ पीए /१४/१४, दि. ३ जून २०१४

अ १८ पीए/११६/१३ श्रेयांक पद्धती (credit system)साठी स्वतंत्र शिक्षकांच्या नियुक्तीबाबत.

(टिप: विद्यापीठ अनुदान आयोगाच्या सुचनेनुसार व महाराष्ट्र राज्य शासन निर्णयानुसार पुणे विद्यापीठांतर्गत पदवी व पदव्युत्तर अभ्यासक्रमांना श्रेयांक पद्धती (Credit System) तातडीने लागू करण्यासंदर्भात मागील विद्वत परिषदेमध्ये चर्चा होऊन पदव्युत्तर पातळीवर शैक्षणिक वर्ष २०१३-२०१४ पासून श्रेयांक पद्धती सुरू करण्यासंदर्भात अहवाल सादर करण्यासाठी प्राचार्य निकम यांच्या अध्यक्षतेखाली समितीने दिलेला अहवाल मा. कुलगुरू यांनी विद्वत परिषदेच्या वतीने स्वीकारलेला असून तो सर्व महाविद्यालयांना व पदव्युत्तर केंद्रांना यापूर्वीच कळविण्यात आलेला आहे. त्यानुसार विज्ञान, अभियांत्रिकी इ. पाच विद्याशाखांसाठी १०० श्रेयांक व कला, मानस, नीती, वाणिज्य इ. सहा विद्याशाखांसाठी ६४ श्रेयांकाची पद्धती नव्याने विकसित करून याच अहवालाद्वारे सर्वांना कळविण्यात आली आहे. शैक्षणिक वर्ष २०१३-२०१४ पासून सर्व विद्याशाखांतील पदव्युत्तर पदवीच्या प्रथमवर्षामध्ये प्रवेश घेणा-या विद्यार्थ्यांना या पद्धतीद्वारे पदव्युत्तर पदवी अभ्यासक्रम पूर्ण करावा लागणार आहे. श्रेयांक पद्धतीमध्ये ५०% अंतर्गत व ५०% विद्यापीठ पातळीवर सत्रांत परीक्षेद्वारे मूल्यमापन होणार असल्याने अभ्यासक्रमाच्या एकूण कार्यभारानुसार स्वतंत्र प्राध्यापकांची नियुक्ती करणे आवश्यक आहे. श्रेयांक पद्धतीसाठी आवश्यक कार्यभार विद्यापीठाच्या परिपत्रकामध्ये स्पष्ट केलेला आहे. त्यानुसार पदव्युत्तर केंद्रामध्ये जे विषय शिकविले जात असतील तेथील विषयानुसार कार्यभाराची गणती करून त्यानुसार शिक्षक पदे निश्चित करणे विद्यापीठाच्या आरक्षण कक्षाकडून तपासून घेणे व जाहिरातीद्वारे अर्ज मागवून विद्यापीठ निवडसमितीद्वारा निवड करून त्यांची नियुक्ती करणे ही प्रक्रिया सर्व संबंधित पदव्युत्तर अभ्यास केंद्रांनी १५ जुलै, २०१३ पूर्वी पूर्ण करावी अशी अपेक्षा आहे.

ठराव

अ १८ पीए/११६/१३ दि. १५ मे, २०१३

असा ठराव करण्यात येतो की, पदव्युत्तर अभ्यासक्रमासाठी श्रेयांक पद्धतीसाठी स्वतंत्र शिक्षकांची कार्यभारानुसार नियुक्ती करण्यात यावी.

ब ०२ पीए / १५३ / १३

कला, ललित कला प्रयोगजीवी कला विद्याशाखेअंतर्गत शैक्षणिक वर्ष २०१३-१४ पासून सुधारित होणाऱ्या खाली दिलेल्या पदव्युत्तर अभ्यासक्रमास क्रेडीट सिस्टीमसह मान्यता देणेबाबत...

(अभ्यासक्रम कार्यालयात पहादयास मिळतील)

१. एम.ए. भाग १ इंग्लिश (क्रेडीट सिस्टीम)
२. एम.ए. भाग १ मराठी (क्रेडीट सिस्टीम)
३. एम.ए. भाग १ हिंदी (क्रेडीट सिस्टीम)
४. एम.ए. भाग १ व २ हिंदी(प्रयोजनमुलक व साहित्य) विभागाकरिता (क्रेडीट सिस्टीम)
५. एम.ए. भाग १ उर्दू, अरेबिक आणि पर्शियन (क्रेडीट सिस्टीम)
६. एम.ए. भाग १ संस्कृत (क्रेडीट सिस्टीम)
७. एम.ए. संस्कृत प्राकृत (विभागाकरीता)
८. एम. ए. संगीत (सैध्दांतिक व प्रॅक्टीकल) (ललित कला केंद्र)
९. एम. ए. नृत्य (सैध्दांतिक व प्रॅक्टीकल) (ललित कला केंद्र)
१०. एम.ए. रशियन भाग १ व २ क्रेडीट सिस्टीम (परकीय भाषा विभाग)
११. एम.ए. भाग १ व २ जर्मन क्रेडीट सिस्टीम (परकीय भाषा विभाग)
१२. एम.ए. भाग १ जर्मन सेमिस्टर सिस्टीम कॉलेजकरीता
१३. एम.ए. फ्रेंच भाग १ व २ क्रेडीट सिस्टीम (विभागाकरिता)
१४. एम.ए. स्पॅनिश भाग १ व २ क्रेडीट सिस्टीम (विभागाकरिता)
१५. एम.ए. फ्रेंच भाग १ सेमिस्टर सिस्टीम (कॉलेज व बहिःस्थ),
१६. एम.एफ.ए. (पॅटींग) (क्रेडीट सिस्टीम)

(टिपणी:

कला, ललित कला प्रयोगजीवी कला विद्याशाखेअंतर्गत विविध अभ्यासमंडळांनी सुधारीत पदवी अभ्यासक्रम तयार करुन मान्य केले आहे. दि. २५ एप्रिल, २०१३ रोजी झालेल्या कला, ललित कला व प्रयोगजीवी कला विद्याशाखेच्या सभेत सुधारित पदवी व पदव्युत्तर अभ्यासक्रम शैक्षणिक वर्ष २०१३-१४ पासून लागू करण्यास मान्यता दिली असून मा. विद्यापरिषदेस मान्यतेसाठी शिफारस केली आहे. सबब मा. विद्यापरिषदेच्या विद्यारथ्य प्रस्ताव सादर.)

ठराव

वि. प. ब ०२ पीए १५३ / १३ . दि. १८ डिसेंबर, २०१२

असा ठराव करण्यात येतो की, कला, ललित कला प्रयोगजीवी कला विद्याशाखेअंतर्गत शैक्षणिक वर्ष २०१३-१४ पासून सुधारित होणाऱ्या खाली दिलेल्या पदवी अभ्यासक्रमास मान्यता देण्यात येत आहे.

१. एम.ए. भाग १ इंग्लिश (क्रेडीट सिस्टीम)
२. एम.ए. भाग १ मराठी (क्रेडीट सिस्टीम)
३. एम.ए. भाग १ हिंदी (क्रेडीट सिस्टीम)
४. एम.ए. भाग १ व २ हिंदी(प्रयोजनमुलक व साहित्य) विभागाकरिता (क्रेडीट सिस्टीम)
५. एम.ए. भाग १ उर्दू, अरेबिक आणि पर्शियन (क्रेडीट सिस्टीम)
६. एम.ए. भाग १ संस्कृत (क्रेडीट सिस्टीम)
७. एम.ए. संस्कृत प्राकृत (विभागाकरीता)

ब १५ पीए/१६६/१३ मानस, निती व समाजविज्ञान विद्याशाखेअंतर्गत शैक्षणिक वर्ष २०१३-२०१४ पासून प्रथम वर्ष पदव्युत्तर (क्रेडिट सिस्टीम) सर्व सुधारित अभ्यासक्रमांस मान्यता देणेबाबत.

(पुनर्चित अभ्यासक्रम कार्यालयात पहावयास मिळेल)

(टीप:-

मानस, निती व समाजविज्ञान विद्याशाखेच्या सभेमध्ये प्रथम वर्ष पदव्युत्तर पदवी (क्रेडिट सिस्टीम) सुधारित अभ्यासक्रमांच्या खालील विषयांना मा. अधिष्ठाता, मानस, निती व समाजविज्ञान विद्याशाखा यांनी मानस, निती व समाजविज्ञान विद्याशाखेच्या वतीने मान्यता दिलेली असून मा. विद्यापरिषदेस मान्यतेसाठी शिफारस करण्यात आली आहे.

विषय : इतिहास, अर्थशास्त्र, मानसशास्त्र, राज्यशास्त्र, संरक्षण आणि सामरिकशास्त्र, तत्त्वज्ञान, समाजशास्त्र, ग्रंथालय व माहितीशास्त्र, मानवशास्त्र, संज्ञापन व वृत्तपत्रविद्या, सोशल वर्क इ.

सबब सदरचा प्रस्ताव मा. विद्यापरिषदेच्या विचारार्थ सादर.)

ठराव

वि. प. ब १५ पीए/ १६६ /दि. १५ मे, २०१३

असा ठराव करण्यात येतो की, मानस, निती व समाजविज्ञान विद्याशाखेअंतर्गत शैक्षणिक वर्ष २०१३-२०१४ पासून प्रथम वर्ष पदव्युत्तर (क्रेडिट सिस्टीम) सर्व सुधारित अभ्यासक्रमांस मान्यता देण्यात येत आहे.

| | | |
|----|-----------------------|--|
| 13 | Environmental Science | M.Sc. I Environmental Science (For College) |
| 14 | Communication Studies | M.Sc. I Communication Studies (For College & Dept.) |
| 15 | Biochemistry | M.Sc. I Biochemistry (For College and Dept.) |

सबब सदरचा प्रस्ताव मा. विद्यापरिषदेस मान्यतेसाठी सादर)

ठराव

वि.प.क्र. ब १९ पीए /१७०/१३, दि. १५ मे २०१३

असा ठराव करण्यात येतो की, विज्ञान विद्याशाखेअंतर्गत विविध अभ्यासमंडळांच्यापुढे नमुद केलेल्या पदव्युत्तर पदवी विषयांच्या (क्रेडिट सिस्टीम) पुनर्रचित अभ्यासक्रमास शैक्षणिक वर्ष २०१३-१४ पासून मान्यता देण्यात येत आहे.

| Sr. No. | Subject | Syllabi Details |
|---------|------------------|--|
| 1 | Mathematics | 1) M.A./M.Sc. I Mathematics (For College) 2) M. Tech. (1 Year) Industrial Mathematics with Computer Applications (For College) |
| 2 | Statistics | 1) M.A./M.Sc. I Statistics (For College) 2) M.A./M.Sc. I Statistics (For Dept.) |
| 3 | Physics | M.Sc. I Physics (For College) |
| 4 | Chemistry | 1) M.Sc. I Chemistry (For College) 2) M.Sc. I Chemistry (For Dept.) 3) M.Sc. I Medicinal Chemistry (For Dept.) 4) P.G. B.Sc. (Applied) Analytical Techniques (For Dept.) |
| 5 | Botany | M.Sc. I Botany (For College) |
| 6 | Zoology | M.Sc. I Zoology (For College) |
| 7 | Geology | 1) M.Sc. I Geology (For College) 2) M.Sc. I Petroleum Technology (For College) |
| 8 | Geography | M.A./M.Sc. I Geography (For College) |
| 9 | Microbiology | M.Sc. I Microbiology (For College) |
| 10 | Computer Science | 1) M.C.A. (I,II,III year) (Science) (For Dept.) 2) M.Tech. (I,II year) Computer Science (For Dept.) 3) M.Sc. (I,II year) Computer Science (For Dept.) 4) M.Sc. I Computer Science (For College) |

| | | |
|----|-----------------------|---|
| | | 5) M.C.A. I Science (For College) |
| 11 | Electronic Science | 1) M.Sc. I Electronic Science (For College) 2) M.Sc. II Electronic Science (For Dept.) |
| 12 | Biotechnology | M.Sc. I Biotechnology (For College) |
| 13 | Environmental Science | M.Sc. I Environmental Science (For College) |
| 14 | Communication Studies | M.Sc. I Communication Studies (For College & Dept.) |
| 15 | Biochemistry | M.Sc. I Biochemistry (For College and Dept.) |

क ०२पीए/१४/१३

पुणे विद्यापीठाच्या संलग्न महाविद्यालयांमध्ये पदव्युत्तर स्तरावर सत्र व श्रेयांक पद्धत (Semester and Credit System) शैक्षणिक वर्ष २०१३-२०१४ पासून राबविण्याबाबत.

(टिप :

विद्यापीठ अनुदान आयोग, नवी दिल्ली यांनी दिलेल्या निर्देशानुसार तसेच उच्च व तंत्र शिक्षण विभाग, महाराष्ट्र शासन यांनी वेळोवेळी निर्गमित केलेल्या आदेशानुसार पुणे विद्यापीठाच्या संलग्न महाविद्यालयांमध्ये पदव्युत्तर अभ्यासक्रमासाठी श्रेयांक पद्धत राबविण्याबाबत खालील समिती नियुक्त करण्यात आली होती.

- १) प्राचार्य नंदकुमार निकम (अध्यक्ष)
- २) डॉ. पंडित विद्यासागर, भौतिकशास्त्र विभाग, पुणे विद्यापीठ, पुणे
- ३) डॉ. इ. बी. खेडकर, अधिष्ठाता, व्यवस्थापन विद्याशाखा
- ४) डॉ. के. सी. मोहिते, अधिष्ठाता, विज्ञान विद्याशाखा
- ५) डॉ. जी. के. खराटे, अधिष्ठाता, अभियांत्रिकी विद्याशाखा
- ६) डॉ. एस. यू. जाधवर, अधिष्ठाता, वाणिज्य विद्याशाखा
- ७) डॉ. सरोज घासकडबी, प्राणीशास्त्र विभाग, पुणे विद्यापीठ, पुणे
- ८) डॉ. व्ही. बी. गायकवाड, संचालक, म.वि.वि.म., पुणे विद्यापीठ, पुणे

सदर समितीने गेल्या वर्षभर अनेक समा घेऊन तसेच काही सभांना अन्य विद्यापरिषदेच्या अधिष्ठात्यांना निमंत्रित करून श्रेयांक पद्धतीसंदर्भातील नियमावली तयार केली. सदर नियमावली मा. कुलगुरु यांनी विद्यापरिषदेच्या वतीने मान्य केली व सर्व संबंधितांना सदरची नियमावली माहिती होण्याच्या दृष्टीकोनातून दि. ८ एप्रिल, २०१३ रोजी श्रेयांक पद्धतीची नियमावली विद्यापीठाच्या संकेतस्थळावर प्रसिद्ध करण्यात आली. (सोबत श्रेयांक पद्धतीची नियमावली जोडली आहे.) तसेच सदरची नियमावली दि. २२ एप्रिल, २०१३ रोजी आयोजित करण्यात आलेल्या मा. व्यवस्थापन परिषदेच्या सभेपुढे विचारार्थ ठेवण्यात आली.)

ठराव

वि.प. क ०२ पीए/१४/२०१३ दि. १५ मे, २०१३

असा ठराव करण्यात येतो की, मा. कुलगुरु यांनी विद्यापरिषदेच्या वतीने घेतलेल्या वरील निर्णयाच्या कार्यवाहीची मान्यतेसह नोंद घेण्यात येत आहे.

“ ब ” प्रस्ताव

ब ०१ पीए/ ०१ /१४ कला, ललित कला व प्रयोगजीवी कला विद्याशाखेअंतर्गत शैक्षणिक वर्ष २०१४-१५ पासून सुधारित होणाऱ्या द्वितीय वर्ष पदवीच्या अभ्यासक्रमास मान्यता देणेबाबत..

(अभ्यासक्रम कार्यालयात पहावयास मिळेल)

(टिपणी:

कला, ललित कला व प्रयोगजीवी कला विद्याशाखेअंतर्गत येणाऱ्या विविध अभ्यासमंडळांनी तयार केलेल्या द्वितीय वर्षांच्या सुधारित पदवी अभ्यासक्रमास अभ्यासमंडळाच्या सभेत मान्यता दिलेली आहे.

दि. २९ एप्रिल, २०१४ रोजी झालेल्या कला, ललित कला व प्रयोगजीवी कला विद्याशाखेच्या सभेत खालील शिफारस केलेली असून ती मा. विद्यापरिषदेच्या विचारार्थ सादर.

असा ठराव करण्यात येतो की, कला, ललित कला व प्रयोगजीवी कला विद्याशाखेअंतर्गत येणाऱ्या सर्व विषयांच्या शैक्षणिक वर्ष २०१४-१५ पासून सुधारित होणा-या द्वितीय वर्ष बी.ए., बी.एस्सी व बी.एफ.ए. या अभ्यासक्रमास मान्यता देऊन मा. विद्यापरिषदेस मान्यतेसाठी शिफारस करण्यात आली.

सबब मा. विद्यापरिषदेच्या विचारार्थ प्रस्ताव सादर.)

ठराव

वि. प. ब ०१ पीए/ ०१ /दि. ०३ जून, २०१४

असा ठराव करण्यात येतो की, कला, ललित कला व प्रयोगजीवी कला विद्याशाखेअंतर्गत येणाऱ्या सर्व विषयांच्या शैक्षणिक वर्ष २०१४-१५ पासून सुधारित होणा-या द्वितीय वर्ष बी.ए., बी.एस्सी व बी.एफ.ए. या अभ्यासक्रमास मान्यता देण्यात येत आहे.

ब ०२ पीए/ ०२ /१४ कला, ललित कला व प्रयोगजीवी कला विद्याशाखेअंतर्गत शैक्षणिक वर्ष २०१४-१५ पासून सुधारित होणाऱ्या द्वितीय वर्ष पदव्युत्तर अभ्यासक्रमास मान्यता देणेबाबत..

(अभ्यासक्रम कार्यालयात पहावयास मिळेल)

(टिपणी:

कला, ललित कला व प्रयोगजीवी विद्याशाखेअंतर्गत येणाऱ्या विविध अभ्यासमंडळांनी तयार केलेल्या द्वितीय वर्षाच्या सुधारित पदव्युत्तर अभ्यासक्रमास अभ्यासमंडळाच्या सभेत मान्यता दिलेली आहे.

दि. २९ एप्रिल, २०१४ रोजी झालेल्या कला, ललित कला व प्रयोगजीवी कला विद्याशाखेच्या सभेत खालील शिफारस केलेली असून ती मा. विद्यापरिषदेच्या विचारार्थ सादर.

असा ठराव करण्यात येतो की, कला, ललित कला व प्रयोगजीवी कला विद्याशाखेअंतर्गत येणाऱ्या सर्व विषयांच्या शैक्षणिक वर्ष २०१४-१५ पासून सुधारित होणाऱ्या एम.ए. व एम.एफ.ए. भाग-२ या अभ्यासक्रमास मान्यता देऊन मा. विद्यापरिषदेस मान्यतेसाठी शिफारस करण्यात आली.

सचब मा. विद्यापरिषदेच्या विचारार्थ प्रस्ताव सादर.)

ठराव

वि. प. ब ०२ पीए/ ०२/दि. ०३ जून, २०१४

असा ठराव करण्यात येतो की, कला, ललित कला व प्रयोगजीवी कला विद्याशाखेअंतर्गत येणाऱ्या सर्व विषयांच्या शैक्षणिक वर्ष २०१४-१५ पासून सुधारित होणाऱ्या क्रेडिट सिस्टीमच्या एम.ए. व एम.एफ.ए. भाग-२ या अभ्यासक्रमास मान्यता देण्यात येत आहे.

ब ०८ पीए/ ०८ /१४ शैक्षणिक वर्ष २०१४-१५ पासून मराठी विभागाच्या एम.ए. क्रेडिट सिस्टीमच्या सुधारित अभ्यासक्रमास मान्यता देणेबाबत..

(टिपणी:

दि. ०४ एप्रिल, २०१४ रोजी झालेल्या मराठी अभ्यासमंडळाच्या सभेत घरील श्रेणी योजनेस मान्यता देवून कला, ललित कला व प्रयोगजीवी कला विद्याशाखेस शिफारस केलेली आहे.

दि. २९ एप्रिल, २०१४ रोजी झालेल्या कला, ललित कला व प्रयोगजीवी कला विद्याशाखेच्या सभेत खालील शिफारस केलेली असून ती मा. विद्यापरिषदेच्या विचारार्थ सादर.

असा ठराव करण्यात येतो की, मराठी विभागाच्या एम.ए. क्रेडिट सिस्टीमच्या सुधारित अभ्यासक्रमास मान्यता देऊन मा. विद्यापरिषदेस मान्यतेसाठी शिफारस करण्यात आली.

सद्य मा. विद्यापरिषदेच्या विचारार्थ प्रस्ताव सादर.)

ठराव

वि. प. ब ०८ पीए/ ०८/दि. ०३ जून, २०१४

असा ठराव करण्यात येतो की, मराठी विभागाच्या एम.ए. क्रेडिट सिस्टीमच्या सुधारित अभ्यासक्रमास मान्यता देण्यात येत आहे.

ब १४पीए/१४/१४

विज्ञान विद्याशाखेअंतर्गत विविध अभ्यासमंडळांच्यापुढे नमूद केलेल्या पदव्युत्तर पदवी (M.A./M.Sc.) विषयांच्या (क्रेडिट सिस्टीम) सुधारित अभ्यासक्रमास शैक्षणिक वर्ष २०१४-१५ पासून मान्यता देण्याबाबत...

(सुधारित अभ्यासक्रम कार्यालयात पाहावयास मिळतील)

(टीप:-

विज्ञान विद्याशाखेअंतर्गत विविध अभ्यासमंडळांनी पदव्युत्तर पदवी (M.A./M.Sc.) विषयांचे (क्रेडिट सिस्टीमप्रमाणे) सुधारित अभ्यासक्रम तयार करून त्यास मान्यता दिलेली आहे.

दि. २८ एप्रिल २०१४ रोजीच्या विज्ञान विद्याशाखेच्या सभेत पुढील पदव्युत्तर पदवी (M.A./M.Sc.) विषयांच्या (क्रेडिट सिस्टीमप्रमाणे) सुधारित अभ्यासक्रमास शैक्षणिक वर्ष २०१४-१५ पासून मान्यता दिली असून मा. विद्यापरिषदेस मान्यतेकरिता शिफारस केली आहे.

| Sr. No. | Subject | Syllabi Details |
|---------|-------------|--|
| 1 | Mathematics | 1) M.A./M.Sc. II Mathematics (For College) 2) M. Tech. (II Year) Industrial Mathematics with Computer Applications (For College) 3) M.A./M.Sc. I Mathematics (For Dept.) 4) M. Tech. (I Year) Industrial Mathematics with Computer Applications (For Dept.) |
| 2 | Statistics | 1) M.A./M.Sc. II Statistics (For College) 2) M.A./M.Sc. II Statistics (For Dept.) |
| 3 | Physics | 1) M.Sc. I Physics (For College) 2) M.Sc. II Physics (For College) 3) Basics of Measurement and Measuring Instruments (6 Credit Course) (For Dept.) |
| 4 | Chemistry | 1) M.Sc. I Chemistry (For College) 2) M.Sc. II Chemistry (For College) 3) M.Sc. II Chemistry (For Dept.) 4) M.Sc. II Medicinal Chemistry (For Dept.) |
| 5 | Botany | 1) M.Sc. II Botany (For College) 2) M.Sc. I & II Wine, Brewing and Alcohol Technology (For College) 3) M.Sc. I & II Botany (For Dept.) |
| 6 | Zoology | M.Sc. II Zoology (For College) |
| 7 | Geology | 1) M.Sc. II Geology (For College) 2) M.Sc. II Petroleum Technology (For College) |

| | | |
|----|-----------------------|--|
| 8 | Geography | 1) M.A./M.Sc. II Geography (For College) 2) M.A./M.Sc. I & II Geography (For Dept.) 3) M.A./M.Sc. I & II Geoinformatics (For Dept.) 4) P.G.B.Sc. (Applied) in GIS and Remote Sensing (For Dept.) |
| 9 | Microbiology | 1) M.Sc. II Microbiology (For College) 2) M.Sc. I Biodiversity (For College) |
| 10 | Computer Science | 1) M.Sc. II Computer Science (For College) 2) M.C.A. II Science (For College) |
| 11 | Electronic Science | M.Sc. II Electronic Science (For College) |
| 12 | Biotechnology | M.Sc. II Biotechnology (For College) |
| 13 | Environmental Science | M.Sc. II Environmental Science (For College & Dept) |
| 14 | Communication Studies | M.Sc. II Communication Studies (For College & Dept.) |
| 15 | Biochemistry | M.Sc. II Biochemistry (For College and Dept.) |

सबब सदरचा प्रस्ताव मा. विद्यापरिषदेस मान्यतेसाठी सादर)

ठराव

वि.प.क्र. ब १४ पीए /१४/१४, दि. ३ जून २०१४

असा ठराव करण्यात येतो की, विज्ञान विद्याशाखेअंतर्गत विविध अभ्यासमंडळांच्यापुढे नमुद केलेल्या पदव्युत्तर पदवी (M.A./M.Sc.) विषयांच्या (क्रेडिट सिस्टीम) सुधारित अभ्यासक्रमास शैक्षणिक वर्ष २०१४-१५ पासून मान्यता देण्यात येत आहे.

| Sr. No. | Subject | Syllabi Details |
|---------|-------------|--|
| 1 | Mathematics | 1) M.A./M.Sc. II Mathematics (For College) 2) M. Tech. (II Year) Industrial Mathematics with Computer Applications (For College) 3) M.A./M.Sc. I Mathematics (For Dept.) 4) M. Tech. (I Year) Industrial Mathematics with Computer Applications (For Dept.) |
| 2 | Statistics | 1) M.A./M.Sc. II Statistics (For College) 2) M.A./M.Sc. II Statistics (For Dept.) |
| 3 | Physics | 1) M.Sc. I Physics (For College) 2) M.Sc. II Physics (For College) 3) Basics of Measurement and Measuring Instruments (6 Credit Course) (For Dept.) |
| 4 | Chemistry | 1) M.Sc. I Chemistry (For College) 2) M.Sc. II Chemistry (For College) |

ब २१पीए/२१/१४ विज्ञान विद्याशाखेअंतर्गत 'M.Sc. Physics' (Dept.) या अभ्यासक्रमाकरिता Optional courses for Semester III, PHY-T 328 - 'Soft Condensed Matter Physics' and for Semester IV, PHY-T 428 'Soft Condensed Matter Physics' या वैकल्पिक कोर्सला शैक्षणिक वर्ष २०१४-१५ पासून मान्यता देणेबाबत...

(सोबत :- वैकल्पिक कोर्स)

(टीप:-

विज्ञान विद्याशाखेअंतर्गत फिजीक्स अभ्यासमंडळाने दि. २६ एप्रिल २०१४ रोजीच्या सभेत 'M.Sc. Physics' (Dept.) या अभ्यासक्रमाकरिता Optional courses for Semester III, PHY-T 328 - 'Soft Condensed Matter Physics' and for Semester IV, PHY-T 428 'Soft Condensed Matter Physics' या वैकल्पिक कोर्सला शैक्षणिक वर्ष २०१४-१५ पासून मान्यता दिली असून विज्ञान विद्याशाखेस मान्यता देण्याबाबत शिफारस करण्यात आली आहे.

दि. २८ एप्रिल २०१४ रोजीच्या विज्ञान विद्याशाखेच्या सभेत उपरोक्त वैकल्पिक कोर्सला मान्यता दिलेली असून मा. विद्यापरिषदेस मान्यतेकरिता शिफारस केली आहे.

सबब सदरचा प्रस्ताव मा. विद्यापरिषदेच्या मान्यतेसाठी सादर.)

ठराव

वि.प.क्र. ब २१ पीए /२१/१४, दि. ३ जून २०१४

असा ठराव करण्यात येतो की, विज्ञान विद्याशाखेअंतर्गत 'M.Sc. Physics' (Dept.) या अभ्यासक्रमाकरिता Optional courses for Semester III, PHY-T 328 - 'Soft Condensed Matter Physics' and for Semester IV, PHY-T 428 'Soft Condensed Matter Physics' या वैकल्पिक कोर्सला शैक्षणिक वर्ष २०१४-१५ पासून मान्यता देण्यात येत आहे.

ब ३३ पीए/३३/१४ मानस, निती व समाजविज्ञान विद्याशाखेअंतर्गत शैक्षणिक वर्ष २०१४-२०१५ पासून व्दितीय वर्ष पदवी सर्व सुधारित अभ्यासक्रमांस मान्यता देणेबाबत.

(अभ्यासक्रम कार्यालयात पहावयास मिळेल)

(टीप:-

मानस, निती व समाजविज्ञान विद्याशाखेच्या दि. २९.४.२०१४ रोजी झालेल्या सभेमध्ये व्दितीय वर्ष पदवी सुधारित अभ्यासक्रमांना मान्यता दिलेली असून मा. विद्यापरिषदेस मान्यतेसाठी शिफारस करण्यात आली आहे.

विषय : इतिहास, अर्थशास्त्र, मानसशास्त्र, राज्यशास्त्र, संरक्षण आणि सामरिकशास्त्र, तत्वज्ञान, तर्कशास्त्र व गांधीविचार, समाजशास्त्र, मानवशास्त्र इ.

सबब सदरचा प्रस्ताव मा. विद्यापरिषदेच्या विचारार्थ सादर.)

ठराव

वि.प.क्र. ब ३३ पीए/३३/१४, दि. ३ जून, २०१४

असा ठराव करण्यात येतो की मानस, निती व समाजविज्ञान विद्याशाखेअंतर्गत शैक्षणिक वर्ष २०१४-२०१५ पासून व्दितीय वर्ष पदवी सर्व सुधारित अभ्यासक्रमांस मान्यता देण्यात येत आहे.

ब ३४ पीए/३४/१४ मानस, निती व समाजविज्ञान विद्याशाखेअंतर्गत शैक्षणिक वर्ष २०१४-२०१५ पासून व्दितीय वर्ष पदव्युत्तर पदवी (क्रेडिट सिस्टीम) सर्व सुधारित अभ्यासक्रमांस मान्यता देणेबाबत.

(अभ्यासक्रम कार्यालयात पहावयास मिळेल)

(टीप:-

मानस, निती व समाजविज्ञान विद्याशाखेच्या दि. २९.४.२०१४ रोजी झालेल्या सभेमध्ये व्दितीय वर्ष पदव्युत्तर पदवी (क्रेडिट सिस्टीम) सुधारित अभ्यासक्रमांच्या खालील विषयांना मान्यता दिलेली असून मा. विद्यापरिषदेस मान्यतेसाठी शिफारस करण्यात आली आहे.

विषय : इतिहास, अर्थशास्त्र, मानसशास्त्र, राज्यशास्त्र, संरक्षण आणि सामरिकशास्त्र, तत्वज्ञान, समाजशास्त्र, मानवशास्त्र, इ.

ठराव

वि.प.क्र. ब ३४ पीए/३४/१४, दि. ३ जून, २०१४

असा ठराव करण्यात येतो की, मानस, निती व समाजविज्ञान विद्याशाखेअंतर्गत शैक्षणिक वर्ष २०१४-२०१५ पासून व्दितीय वर्ष पदव्युत्तर पदवी (क्रेडिट सिस्टीम) सर्व सुधारित अभ्यासक्रमांस मान्यता देण्यात येत आहे.

Revised Course Structure of English

T.Y.B.A. Special Paper III (S-3) (w. e. f. 2015-16)

Title of the Paper: Appreciating Novel

1) Objectives:

- a) To introduce students to the basics of novel as a literary form
- b) To expose students to the historical development and nature of novel
- c) To make students aware of different types and aspects of novel
- d) To develop literary sensibility and sense of cultural diversity in students
- e) To expose students to some of the best examples of novel

b) Course content:

Term- I

A) Theory of Novel

- (a) What is Novel? A brief history of novel as a literary form
- (b) Elements of Novel: Theme, Characters, Plot, Structure Narrative Techniques, Point of view, Conflict, Setting and atmosphere, Dialogue
- (c) Types of Novel: epistolary, picaresque, bildungsroman, historical, regional, Psychological, satire, realistic, experimental novel, science fiction
- (d) In addition to this other literary terms related to novel/fiction be considered for background study

B) Animal Farm- George Orwell

Term -II

A) The Old Man and the Sea – Ernest Hemingway

B) The Guide – R. K. Narayan

Revised Course Structure of English

T.Y.B.A. Special Paper IV(S-4) (w. e. f. 2015-16)

Title of the Paper: Introduction to Literary Criticism

a) Objectives:

- a) To introduce students to the basics of literary criticism
- b) To make them aware of the nature and historical development of criticism
- c) To make them familiar with the significant critical approaches and terms
- d) To encourage students to interpret literary works in the light of the critical approaches
- e) To develop aptitude for critical analysis

b) Course Content:

TERM-I

UNIT-I

Definition, origin, principles, types, and functions of literary criticism

UNIT-II

Short survey of literary criticism- critical approaches/movements: Classical criticism (Plato's charges against poetry, Aristotle's theory of imitation, Longinus's sources of the sublime), Neo-classical criticism (Pierre Corneille's reinterpretation of three unities, John Dryden's interpretation of classical ideas, Samuel Johnson's justification of Shakespeare's intermingling of tragedy and comedy and Alexander Pope's views on wit and Nature), Romanticism (William Wordsworth's definition of poetry, S. T. Coleridge's concept of fancy and imagination) and Victorian criticism (Matthew Arnold's views about the function of criticism and Walter Pater's concept of art for art's sake). This short survey is expected to be introductory in nature and should be strictly limited to the study of the salient features of the above mentioned approaches, the critics and the brief account of their seminal works.

तृतीय वर्ष कला (T.Y.B.A)
मराठी
(पर्यायी अभ्यासक्रम)
व्यावहारिक आणि उपयोजित मराठी

❖ **अभ्यासक्रमाची वैशिष्ट्ये :-**

१. संज्ञापनातील भाषेची भूमिका, स्वरूप समजावून घेणे. भाषिक कौशल्ये, क्षमता विकसित करणे
२. भाषिक कौशल्याचे विविध आविष्कार आणि संपर्कमाध्यमे यांचा परस्परसंबंध समजावून घेणे व उपयोजन करणे.
३. मराठीचा कार्यालयीन, व्यावसायिक कामकाजात होणारा वापर, गरज व स्वरूप विशेषांची माहिती घेणे.
४. कार्यालयीन व व्यावसायिक भाषाव्यवहारासाठी आवश्यक लेखनकौशल्याचे संपादन करणे.
५. मुद्रित व इलेक्ट्रॉनिक माध्यमांच्या कामकाज पद्धतीचा आढावा घेणे.

प्रथम सत्र
उपयोजित मराठी

(पर्यायी अभ्यासक्रम)

एकूण तासिका : ४८

१. विविध प्रसारमाध्यमांची ओळख – (Print and Electronic Media) वृत्तपत्रे, आकाशवाणी, दूरदर्शन, माध्यमांचे सामर्थ्य व मर्यादा – जनसंपर्क, माध्यमांचा जनमानसावर होणारा परिणाम – प्रसारमाध्यमांसाठी लेखन स्वरूप, तंत्रे व कौशल्ये, प्रसारमाध्यमातील भाषेचे स्वरूप.
२. वृत्तपत्रांसाठी लेखन— बातमी, स्तंभलेखन, अग्रलेख, मुलाखत.

३. प्रसारमाध्यमांतील जाहिरातींचे लेखन —विविध प्रसारमाध्यमांतील जाहिरातींमध्ये लेखन — विविध प्रसारमाध्यमांतील जाहिरातींमध्ये मराठी भाषेचे स्थान. जाहिरात — स्वरूप व मांडणी, जाहिरातींचा मसुदा, घोषवाक्य, बोधचिन्ह इत्यादी — प्रभावी जाहिरातींचे रसग्रहण — जाहिरात लेखन.

द्वितीय सत्र

एकूण तासिका : ४८

४. आकाशवाणीसाठी लेखन :-

भाषण, मुलाखत, रूपक, संवाद, बातम्यांचे लेखन — विशेष वृत्तान्ताचे लेखन — श्रुतिका, नभोनाट्य रूपांतर, शैक्षणिक कार्यक्रमांचे लेखन इ.

५. दूरचित्रवाणीसाठी लेखन :-

दूरचित्रवाणी या माध्यमाचे वेगळेपण — तांत्रिक माहिती, दृश्यभाषा — भाषण, मुलाखत, संवाद, बातम्या— निवेदन, सूत्रसंचालन, माहितीपट, रूपक (स्थूलदर्शनात्मक, व्यक्तिदर्शनात्मक, माहितीपर इ.) लघुपट मालिका इ. साठी लेखन.

❖ स्वाध्याय :-

१. एकाच घटनेबद्दल विविध वृत्तपत्रांत आलेल्या बातम्यांचे संकलन करणे.
२. कार्यक्रमांना उपस्थित राहून त्यावर विविध माध्यमांसाठी बातमी लेखन करणे.
३. वर्तमानपत्रातील आकर्षक वृत्तलेखकांचे तसेच स्फुट—अग्रलेख आणि परीक्षणांची कात्रण काढून परिशीलन करणे.
४. विविध माध्यमांसाठी प्रत्यक्ष मुलाखत घेणे.
५. आकाशवाणीवरील बातम्या ऐकून त्यांचे पुनर्लेखन करणे.
६. सभोवतालच्या घडामोडी जाणून घेऊन, विविध कार्यक्रमांना उपस्थित राहून त्याआधारे आकाशवाणीसाठी वार्तापत्र तयार करणे.

SAVITRIBAI PHULE PUNE UNIVERSITY

T.Y.B.A. HISTORY SYLLABUS

From 2015 -2016

HISTORY OF ASIA IN 20TH CENTURY (1914 – 1992)

OR

HISTORY OF USA (1914 – 1992)

LEVEL: S4

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE.

POLITICAL SCIENCE

Syllabus for TYBA

80:20 Pattern to be implemented from 2015-16

General Course

Paper No

Paper Title

G - 3

Political Ideologies

OR

G - 3

Local Self Government In Maharashtra

Special Course

S - 3

Public Administration

S - 4

International Politics

Savitribai Phule Pune University

T.Y.B.A. Economics Revised Syllabus (*NEW*)

From 2015-16

| Code No. | Title of the Paper |
|----------|--|
| G. 3 | Economic Development & Planning |
| S. 3 | International Economics |
| S. 4 | Elementary Quantitative Technique OR Public Finance |

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

Revised Structure of Syllabus for B.A. Geography to be Effective From

F.Y.B.A. – June, 2013

S.Y.B.A. – June, 2014

T.Y.B.A. – June, 2015

| | |
|----------|----------------------------------|
| F.Y.B.A. | |
| G-1 | Gg-110 Elements of Geomorphology |

| | |
|----------|---|
| S.Y.B.A. | |
| G-2 | Gg-210 Elements of Climatology and Oceanography |
| | OR |
| G-2 | Gg-210 Geography of Disaster Management |
| S-1 | Gg-220 Economic Geography |
| | OR |
| S-1 | Gg-220 Tourism Geography |
| S-2 | Gg-201 Fundamentals of Geographical Analysis |

| | |
|----------|--|
| T.Y.B.A. | |
| G-3 | Gg-310 Regional Geography of India |
| | OR |
| G-3 | Gg-310 Human Geography |
| S-3 | Gg-320 Agricultural Geography |
| | OR |
| S-3 | Gg-320 Population and Settlement Geography |
| S-4 | Gg-301 Techniques of Spatial Analysis |

UNIVERSITY OF PUNE

FOR

S.Y.B. Sc. (Physics)



FROM ACADEMIC YEAR

2014-2015

Equivalence of Courses in 2013 pattern with 2008 pattern

Semester I

| Paper | 2008 Pattern (Old Course) | 2013 Pattern (New Course) |
|--------------------|-----------------------------------|-----------------------------------|
| Paper I (PHY211) | Mathematical Methods in Physics I | Mathematical Methods in Physics I |
| Paper II (PHY 212) | Electronics I | Electronics I |
| Paper II (PHY 212) | Instrumentation | Instrumentation |

Semester II

| Paper | 2008 Pattern (Old Course) | 2013 Pattern (New Course) |
|--------------------|-------------------------------|-------------------------------|
| Paper I (PHY221) | Oscillations, Waves and Sound | Oscillations, Waves and Sound |
| Paper II (PHY 222) | Optics | Optics |

SavitribaiPhule Pune University

Proposed structure of T. Y. B. Sc. (Physics) revised syllabus

To be implemented from 2014-2015

| Sem III | Sem IV |
|---|--|
| PH-331: Mathematical Methods in Physics II | PH-341 Classical Electrodynamics |
| PH-332: Solid State Physics | PH-342: Quantum Mechanics |
| PH-333: Classical Mechanics | PH-343: Thermodynamics and Statistical Physics |
| PH-334: Atomic and Molecular Physics | PH-344: Nuclear Physics |
| PH-335: Computational Physics | PH-345: Electronics/Advanced Electronics |
| PH-336 Elective I : (Select any One) | PH-346 Elective II : (Select any One) |
| A: Astronomy and Astrophysics | G: Medical Electronics |
| B: Elements of Materials Science | H: Physics of Nanomaterials |
| C: Motion Picture Physics | I: Microcontrollers |
| D: Biophysics | J: Electro Acoustics and Entertainment Electronics |
| E: Renewable Energy Sources | K: Lasers |
| F: Applied Optics | L: Radiation Physics |
| PH-347: Laboratory Course I | |
| PH-348: Laboratory Course II | |
| PH-349: Laboratory Course III (Project) | |

Savitribai Phule Pune University
Board of Studies in Chemistry
T.Y.B.Sc. Chemistry Syllabus

Structure to be implemented from June 2015 (i.e. from Academic Year 2015-16)

| Semester | Course Code and Title | Number of Lectures | Marks |
|--------------|---|--------------------|-------|
| Semester III | CH-331: Physical Chemistry | 48 | 50 |
| | CH-332: Inorganic Chemistry | 48 | 50 |
| | CH-333: Organic Chemistry | 48 | 50 |
| | CH-334: Analytical Chemistry | 48 | 50 |
| | CH-335: Industrial Chemistry | 48 | 50 |
| | OPTIONAL COURSE CH-336-A Nuclear Chemistry OR CH-336-B Polymer Chemistry OR CH-336-C Introduction to Biochemistry and Molecular Biology OR CH-336-D Environmental and Green Chemistry OR CH-336-E Agriculture Chemistry | 48 | 50 |
| Semester IV | CH-341: Physical Chemistry | 48 | 50 |
| | CH-342: Inorganic Chemistry | 48 | 50 |
| | CH-343: Organic Chemistry | 48 | 50 |
| | CH-344: Analytical Chemistry | 48 | 50 |
| | CH-345: Industrial Chemistry | 48 | 50 |
| | OPTIONAL COURSE CH-346-A Nuclear Chemistry OR CH-346-B Polymer Chemistry OR CH-346-C Introduction to Biochemistry and Molecular Biology OR CH-346-D Environmental and Green Chemistry OR CH-346-E Dairy Chemistry | 48 | 50 |
| | PRACTICAL COURSES | | |
| | CH-347: Physical Chemistry Practicals | | 100 |
| | CH-348: Inorganic Chemistry Practicals | | 100 |
| | CH-349: Organic Chemistry Practicals | | 100 |

NOTE

- Each theory paper will carry 50 Marks out of which 10 Marks will be allotted for internal assessment and University Examination will be conducted for 40 Marks at the end of each semester.
- The practical examination will be conducted at the end of Semester-IV. Each practical course will carry 100 Marks out of which 20 Marks will be allotted for internal assessment and University Examination will be conducted for 80 Marks.

Third Year B. Sc. Zoology
(To be implemented from academic year 2015-2016)

Pattern of examination: Semester

Theory courses: (Sem III: ZY-331 to ZY-336) : Semester

(Sem IV: ZY- 341 to ZY-346) : Semester

Practical Course:(ZY-347-349) : Annual

| Theory Papers | | | | | |
|----------------------|---|---------------------------------------|---|---|---|
| Paper/Course No. | Title | Total Number of lectures Per Semester | Standard of passing | | |
| | | | Internal marks out of 10 (Theory) out of 20 (Practical) | External marks out of 40 (Theory) out of 80 (Practical) | Total passing marks out of 50 (Theory) out of 100 (Practical) |
| SEM III | | | | | |
| ZY-331 | Animal Systematics and Diversity V | 48 | 4 | 16 | 20* |
| ZY-332 | Mammalian Histology | 48 | 4 | 16 | 20* |
| ZY-333 | Biological Chemistry | 48 | 4 | 16 | 20* |
| ZY-334 | Environmental Biology and Toxicology | 48 | 4 | 16 | 20* |
| ZY-335 | Parasitology | 48 | 4 | 16 | 20* |
| ZY-336 | General Pathology or Cell Biology | 48 | 4 | 16 | 20* |
| SEM IV | | | | | |
| ZY-341 | Biological Techniques | 48 | 4 | 16 | 20* |
| ZY-342 | Mammalian Physiology and Endocrinology | 48 | 4 | 16 | 20* |
| ZY-343 | Genetics and Molecular Biology | 48 | 4 | 16 | 20* |
| ZY-344 | Organic Evolution | 48 | 4 | 16 | 20* |
| ZY-345 | General Embryology | 48 | 4 | 16 | 20* |
| ZY-346 | Public Health and Hygiene or Medical Entomology | 48 | 4 | 16 | 20* |

UNIVERSITY OF PUNE, PUNE.
BOARD OF STUDIES IN MATHEMATICS
Syllabus for S.Y.B.Sc
Subject: MATHEMATICS
(With effect from June 2014)

Introduction:

University of Pune has decided to change the syllabi of various faculties from June, 2013.

Taking into consideration the rapid changes in science and technology and new approaches in different areas of mathematics and related subjects Board of studies in Mathematics with concern of teachers of Mathematics from different colleges affiliated to University of Pune has prepared the syllabus of S.Y.B.Sc. Mathematics. To develop the syllabus the U.G.C. Model curriculum is followed.

Aims:

- i) Give the students a sufficient knowledge of fundamental principles, methods and a clear perception of innumerable power of mathematical ideas and tools and know how to use them by modeling, solving and interpreting.
- ii) Reflecting the broad nature of the subject and developing mathematical tools for continuing further study in various fields of science.
- iii) Enhancing students' overall development and to equip them with mathematical modeling abilities, problem solving skills, creative talent and power of communication necessary for various kinds of employment.
- iv) Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study.

Objectives:

(i) A student should be able to recall basic facts about mathematics and should be able to display knowledge of conventions such as notations, terminology and recognize basic geometrical figures and graphical displays, state important facts resulting from their studies.

(ii) A student should get a relational understanding of mathematical concepts and concerned structures, and should be able to follow the patterns involved, mathematical reasoning.

(iii) A student should get adequate exposure to global and local concerns that explore them many aspects of Mathematical Sciences.

(iv) A student be able to apply their skills and knowledge, that is, translate information presented verbally into mathematical form, select and use appropriate mathematical formulae or techniques in order to process the information and draw the relevant conclusion.

(v) A student should be made aware of history of mathematics and hence of its past, present and future role as part of our culture.

Eligibility: F.Y.B.Sc. ,as per University rules

Structure of the course:

| | Semester I | | Semester II | |
|------------------|------------|--------------------------------------|-------------|---|
| Paper I | MT 211 | Multivariable Calculus I | MT 221 | Linear Algebra |
| Paper II | MT 212(A) | Discrete Mathematics | MT 222(A) | Multivariable Calculus II |
| | MT212(B) | Laplace Transform and Fourier Series | MT222(B) | Numerical methods and it's applications |
| Paper III | MT213 | Practical based on MT211,MT212 | MT223 | Practical based on MT221,MT222 |

SAVITRIBAI PHULE PUNE UNIVERSITY,PUNE

BOARD OF STUDIES IN MATHEMATICS

Syllabus for T.Y.B.Sc (2013 Course)

Subject: MATHEMATICS

(With effect from June 2015)

Introduction:

University of Pune has decided to change the syllabi of various faculties from June, 2013. Taking into consideration the rapid changes in science and technology and new approaches in different areas of mathematics and related subjects Board of studies in Mathematics with concern of teachers of Mathematics from different colleges affiliated to University of Pune has prepared the syllabus of T.Y.B.Sc. Mathematics. To develop the syllabus the U.G.C. Model curriculum is followed.

Aims:

- i) Give the students a sufficient knowledge of fundamental principles, methods and a clear perception of innumerable power of mathematical ideas and tools and know how to use them by modeling, solving and interpreting.
- ii) Reflecting the broad nature of the subject and developing mathematical tools for continuing further study in various fields of science.
- iii) Enhancing students' overall development and to equip them with mathematical modeling abilities, problem solving skills, creative talent and power of communication necessary for various kinds of employment.
- iv) Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study.

Objectives:

- (i) A student should be able to recall basic facts about mathematics and should be able to display knowledge of conventions such as notations, terminology and recognize basic geometrical figures and graphical displays, state important facts resulting from their studies.
- (ii) A student should get a relational understanding of mathematical concepts and concerned structures, and should be able to follow the patterns involved, mathematical reasoning.
- (iii) A student should get adequate exposure to global and local concerns that explore them many aspects of Mathematical Sciences.
- (iv) A student be able to apply their skills and knowledge, that is, translate information presented verbally into mathematical form, select and use appropriate mathematical formulae or techniques in order to process the information and draw the relevant conclusion.

(v) A student should be made aware of history of mathematics and hence of its past, present and future role as part of our culture.

Eligibility: S. Y. B.Sc. (With Mathematics) or T. Y. B.Sc Computer Science as per University rules.

Structure of the course:

| Semester- III | | Semester- IV | |
|--|--|--|--|
| MT 331 : | Metric Spaces | MT 341: | Complex Analysis |
| MT 332 : | Real Analysis-I | MT 342: | Real Analysis-II |
| MT 333 : | Problem Course on MT 331 and MT 332 | MT 343: | Problem Course on MT 341 and MT 342 |
| MT 334 : | Group Theory | MT 344: | Ring Theory |
| MT 335 : | Ordinary Differential Equations | MT 345: | Partial Differential Equations |
| MT 336 : | Problem Course on MT 334 and MT 334 | MT 346: | Problem Course on MT 344 and MT 345 |
| Select Any Two out of six courses | | Select Any Two out of six courses | |
| MT 337:A. | Operations Research | MT 347: A | Optimization Techniques |
| MT 337:B. | Dynamical System | MT 347:B | Differential Geometry |
| MT 337: C | C- Programming I | MT 347 :C | C- Programming II |
| MT 337:D. | Lattice Theory | MT 347: D | Graph theory |
| MT 337: E | Financial Mathematics | MT 347: E | Lebesgue Integration |
| MT 337:F | Number Theory | MT 347: F | Computational Geometry |
| MT 338: | Practical based on papers selected from 337 A to 337 F | MT 348 : | Practical based on papers selected from 347 A to 347 F |

Note.

1. Papers MT 331 to MT 336 are compulsory , a student can opt any two papers from MT337 A to MT 337 F in first semester.

2. Papers MT 341 to MT 346 are compulsory , a student can opt any two papers from MT347 A to MT 347 F in second semester.

3. For MT 331 to MT 337 and MT 341 to MT 347 each course is of 50 marks (40 marks theory and 10 marks internal examination).

4. Papers MT 338 and MT 348 are practicals and each course is of 50 marks (32 marks theory, 8 marks oral and 10 marks internal examination).

Medium of Instruction: English

Examination:

A) Pattern of examination: Semester wise.

B) Standard of passing : 20 Marks out of 50 marks for each papers. (But for passing a student should obtain minimum 16 marks out of 40 in the theory and oral examination and overall total marks for theory, oral and internal should be minimum 20).

M. A. (English-Part-I) Credit and Semester system (CSS)
Revised syllabus will be implemented with effect from the academic year 2013-2014

Implementation of Credit and Semester System at PG Centers

- 1- The post-graduate degree will be awarded to students who obtain a total credit as follows:

| Sr. No. | Name of the Faculty | Total credits | Average credits per semester |
|---------|--|---------------|------------------------------|
| 1 | Faculty of Arts & Fine Arts, Social Sciences, Commerce, Education, Physical Education, Law | 64 | 16 |

- 2- One credit will be equivalent to 15 clock hours of teacher-student contact per semester. There will be no mid-way change allowed from CSS to non-credit (external) system or vice versa.
- 3- Among the total number of credits required to be completed for degree course (64 credits) students have to opt for minimum 75% credits from parent Department and remaining 25 % can be opted from either parent Department or other Department/Centers/Faculty. In addition to that students have to obtain compulsory credits over and above.

Examination Rules

- 1- Assessment shall consist of a) In-semester continuous assessment and b) end-semester assessment. Both shall have an equal weightage of 50 % each.
- 2- The teacher concerned shall announce the units for which each in-semester assessment will take place. However, the end-semester assessment shall cover the entire syllabus prescribed for the course.
- 3- An in-semester assessment of 50% marks should be continuous and at least two tests should be conducted for full course of 4 credits and a teacher must select a variety of procedures for examination such as:

- i. Written Test and/or Mid Term Test (not more than one or two for each course)
- ii. Term Paper;
- iii. Journal/Lecture/Library notes;
- iv. Seminar presentation;
- v. Short Quizzes;
- vi. Assignments;
- vii. Extension Work;
- viii. An Open Book Test (with the concerned teacher deciding what books are to be allowed for this purpose)
or
- ix. Mini Research Project by individual student or group of students

The concerned teacher in consultation with the Head of the PG Department shall decide the nature of questions for the Unit Test.

- 4- Semester end examination for remaining 50% marks will be conducted by the UoP.
- 5- The student has to obtain 40 % marks in the combined examination of In Semester assessment and Semester-End assessment with a minimum passing of 30 % in both these separately.
- 6- To pass the degree course, a student shall have to get minimum aggregate 40% marks (E and above on grade point scale) in each course.
- 7- If a student misses an internal assessment examination he/she will have a second chance with the permission of the Principal in consultation with the concerned teacher. Such a second chance shall not be the right of the student.
- 8- Internal marks will not change. A student cannot repeat Internal Assessment. In case she/he wants to repeat internal assessment she/he can do so only by registering for the said courses during the 5th / 6th semester and onwards up to 8th semester.
- 9- Students who have failed semester-end exam may reappear for the semester-end examination only twice in subsequent period. The student will be finally declared as failed if she/he does not pass in all credits within a total period of four years. After that, such students will have to seek fresh admission as per the admission rules prevailing at that time.
- 10- A student cannot register for the third semester, if she/he fails to complete 50% credits of the total credits expected to be ordinarily completed within two semesters.

- 11- There shall be Revaluation of the answer scripts of Semester-End examination but not of internal assessment papers as per Ordinance no.134 A & B.
- 12- While marks will be given for all examinations, they will be converted into grades. The semester end grade sheets will have only grades and final grade sheets and transcripts shall have grade points average and total percentage of marks (up to two decimal points). The final grade sheet will also indicate the PG Center to which the candidate belongs.

Assessment and Grade point average

1- **The system of evaluation will be as follows:** Each assignment/test will be evaluated in terms of grades. The grades for separate assignments and the final (semester-end) examination will be added together and then converted into a grade and later a grade point average. Results will be declared for each semester and the final examination will give total grades and grade point average.

2- Marks/Grade/Grade Point

| Marks | Grade | Grade Point |
|-----------|-----------------|-------------|
| 100 to 75 | O: Outstanding | 06 |
| 74 to 65 | A: Very Good | 05 |
| 64 to 55 | B: Good | 04 |
| 54 to 50 | C: Average | 03 |
| 49 to 45 | D: Satisfactory | 02 |
| 44 to 40 | E: Pass | 01 |
| 39 to 0 | F: Fail | 00 |

3- Final Grade Points:

| Grade Points | Grade |
|--------------|-------|
| 05.00-6.00 | O |
| 04.50-04.99 | A |
| 03.50-04.49 | B |
| 02.50-03.49 | C |
| 01.50-02.49 | D |
| 00.50-01.49 | E |
| 00.00-00.49 | F |

M. A. (English) Part -I (w.e.f. June 2013-14)

(Credit and Semester system-CSS)

Rationale for studying/teaching literature

- The rationale for studying Literature in English is primarily that it reinforces the guiding principles for education reform outlined in the UGC guidelines
- The Literature component in English Curriculum provides learners with learning experiences to appreciate and enjoy literature, encourage self-expression and creativity, enhance their critical and analytical skills, improve their competence in the use of English, develop their cultural understanding as well as positive values and attitudes conducive to lifelong learning, and prepare them for further study or work.
- The aims of studying/teaching the Literature component in English curriculum are to enable learners to appreciate and enjoy a wide range of literary or creative texts and other related cultural forms.
- It helps learners to develop a humanistic outlook on life. Through a close interaction with literary or creative works which portray a diverse range of human thought, emotion and experience, learners gain knowledge and understanding of the nature of human existence and of the world and the society in which they live.
- The study of Literature in English has many practical aspects- it provides ample opportunities for learners to develop their creativity, sharpen their critical and analytical skills, and enhance their language proficiency.
- It broadens students' awareness of the culture of different places where English is used and enhances their appreciation and understanding of culturally diverse society.

- The intellectual, aesthetic and emotional qualities, which learners develop through studying Literature in English, prepare them for further study or work, particularly in areas such as publishing and the media, where creativity, critical thinking and intercultural understanding are highly valued.

Paper – 1.1: English Literature from 1550-1798

(I) Objectives

- 1) To introduce students to major movements and figures of English Literature through the study of selected literary texts
- 2) To create literary sensibility and emotional response to the literary texts and implant sense of appreciation of literary texts
- 3) To expose students to the artistic and innovative use of language employed by the writers
- 4) To instill values and develop human concern in students through exposure to literary texts
- 5) To enhance literary and linguistic competence of students

(II) Allotment of Credits: One credit is equal to 15 clock hours and every semester is allotted four credits (60 clock hours). This also includes the completion of the background survey of literary movements. The allotment is as below:

(III) Course Content

SEMESTER ONE-

- 1) **Unit I: Sidney, Spenser- 15 clock hours** (7 clock hours to poems by Sidney and 8 clock hours to poems by Spenser)
- 2) **Unit II: Herrick, Donne, Marvell-18 clock hours** (6 clock hours to poems by Herrick, Donne and Marvell)
- 3) **Unit III: *The Spanish Tragedy*- 12 clock hours**
- 4) **Unit IV: *King Lear*- 15 clock hours**

पुणे विद्यापीठ
पुनर्रचित अभ्यासक्रम
एम. ए. भाग 1 – विषय मराठी
जून 2013-14 पासून



पुणे विद्यापीठ
एम.ए. (मराठी) भाग 1 साठी श्रेयांक व श्रेणी पध्दतीवर आधारित अभ्यासक्रम
सत्र पहिले व दुसरे
श्रेयांक व श्रेणी पध्दतीवर आधारित पुनर्रचित अभ्यासक्रम
शैक्षणिक वर्ष 2013-14 पासून पुढे

• प्रास्ताविक –

एम.ए. मराठीला येणा-या विद्यार्थ्यांचा बी. ए. पातळीवरील विशेषतः विशेषस्तराच्या पातळीवरील मराठीचा अभ्यास झालेला असतो. त्यांच्या या पूर्वज्ञानाचा विचार करता भारतीय साहित्यशास्त्र, प्राथमिक पातळीवरील भाषाविज्ञान, साहित्यकृतीचा संहितानिष्ठ अभ्यास या विषयाशी विद्यार्थी परिचित असतो. वाङ्मयप्रकाराची संकल्पना त्यांना माहित नसली तरी वाङ्मय प्रकारांशी त्यांची तोंड ओळख झालेली असते. समकालीन वाङ्मय प्रवाहांची विद्यार्थ्यांला बरीचशी समज आलेली असते. या गोष्टी लक्षात घेतल्या म्हणजे एम.ए.च्या दान वर्षाच्या अभ्यासक्रमाची उद्दिष्टे पुढीलप्रमाणे ठरविता येतात.

1. विद्यार्थ्यांला आपल्या आवडीचे, संशोधनाचे क्षेत्र निश्चित करता येणे.
2. मराठी भाषा आणि वाङ्मयाचे प्रगत ज्ञान होणे.
3. समकालीन वाङ्मयीन प्रवाहांचे नीट आकलन होणे.
4. वाङ्मयीन प्रश्नासंबंधी विचार करण्याची जाण येणे.
5. वाङ्मयीन आणि जीवनविषयक जाणीव प्रौढ होणे.
6. विद्यार्थ्यांच्या लेखनगुणांना उत्तेजन मिळणे.
7. चिकित्सक अभ्यासाची क्षमता वाढविणे.

8. साहित्याभ्यासाच्या संदर्भात विवेच्य विषयांची आणि त्यांच्या प्रस्तुताप्रस्तुततेची जाण निर्माण करण्यास मदत करणे अशा विषयाच्याचिकित्सेची समज वाढविणे.
 9. विशिष्ट कालखंडातील साहित्याच्या व्याप्तीबद्दल जाण निर्माण होण्यास मदत करणे, अशा विषयांच्या चिकित्सेची समज वाढविणे.
 10. लेखकाच्या समग्र लेखक म्हणून अभ्यासाची समज निर्माण होण्यास मदत करणे, अशा अभ्यासाची क्षमता वाढविणे.
 11. साहित्यकृतीच्या, साहित्यप्रकाराच्या तौलनिक अभ्यासाबाबत दिशा, व्याप्ती आणि मर्यादा यांची समज निर्माण होण्यास मदत करणे, अशा अभ्यासाची क्षमता वाढविणे.
 12. साहित्याविषयीच्या प्राचीन, मध्ययुगीन, आधुनिक भारतीय व पश्चात्य विचारांबाबत समज वाढविण्यास मदत करणे. अशा विचारांचा सूक्ष्म विश्लेषक व चिकित्सक अभ्यास करण्याची क्षमता वाढविणे.
 13. साहित्याच्या व्यवच्छेदक लक्षणांबाबत विचारांची आणि वाङ्मयीन मूल्यमापनाच्या दृष्टीची समज वाढविणे.
 14. साहित्याभ्यासाच्या संदर्भातील विषयांची ,त्यांच्या प्रस्तुताप्रस्तुततेची जाण निर्माण करणे.
 15. समीक्षा आणि उपयोजित समीक्षा याविषयी, उचित सनद निर्माण होण्यास मदत करणे अशा पध्दतीला समीक्षा करण्याची क्षमतावाढविणे.
 16. भाषेचे विविध व्यवहार आणि साहित्याच्या संदर्भातील भाषाव्यवहार याविषयी आकलनाची क्षमता वाढविणे.
 17. लेखन-संपादन, लेखन-विद्या, भाषांतर, रूपांतर प्रक्रियांविषयी आणि त्यासंबंधीच्या समस्यांविषयी माहिती देणे, या सर्व विषयांच्या संदर्भात-समज वाढविणे. वरील सर्व प्रकारचे लेखन करता यावे म्हणून प्रात्यक्षिके करून घेणे आणि जागतिकीकरणात निर्माण झालेल्या विविध नोकरी-व्यवसायांच्या संधींना सामोरे जाण्याची क्षमता निर्माण करणे.
 18. एकंदरीत विद्यापारंगत एम.ए. ;मराठी या पदवीला विद्यार्थ्यांने पात्र होणे.
- एम.ए. च्या अभ्यासाची वरील उद्दिष्टे व विद्यार्थ्यांचा बी.ए.च्या विशेषस्तरावर झालेला अभ्यास लक्षात घेवून एम.ए.;मराठीच्या अभ्यासक्रमाची रचना जून 2013-14 पासून पुढीलप्रमाणे केली आहे.

एम.ए. (मराठी) भाग 1 (सत्र एक व सत्र दोन)
श्रेयांक व श्रेणी पध्दतीवर आधारीत पुनर्रचित अभ्यासकम
शैक्षणिक वर्ष 2013 – 2014 पासून पुढे
अभ्यासकम आराखडा

- एम.ए. (मराठी) भाग 1
 - 1 व्यावहारिक आणि उपयोजित मराठी
 - 2 मध्ययुगीन मराठी वाङ्मयाचा इतिहास (प्रारंभ ते 1818)
 - 3 भाषाविज्ञान – वर्णनात्मक आणि सामाजिक भाषाविज्ञान
- एम.ए. (मराठी) भाग 2
 - 4 प्रसारमाध्यमे आणि साहित्य व्यवहार
 - 5 साहित्य : समीक्षा व संशोधन
 - 6 विशेष लेखकाचा अभ्यास – (मध्ययुगीन / आधुनिक)

याशिवाय पुढे निर्देशिलेल्या ऐच्छिक विषयामधून प्रत्येक वर्षी एक याप्रमाणे दोन विषयांची निवड विद्यार्थ्यांस करता येईल.

- भाग एक साठी

- 1- ग्रामीण साहित्य आणि दलित साहित्य
- 2- मराठी वाङ्मयाची सांस्कृतिक पार्श्वभूमी (प्रारंभ ते 1818)
- 3- तौलनिक साहित्याभ्यास आणि भाषांतर मीमांसा
- 4- वाङ्मयेतिहासलेखनविद्या
- 5- अलंकार व छंद आणि व्याकरण

- भाग दोन साठी

- 6- सौंदर्यशास्त्र
- 7- लोकसाहित्य व मराठी लोकसाहित्य
- 8- लेखनविद्या व निबंधलेखन
- 9- मराठीतील वैचारिक साहित्य
- 10- साहित्य : सर्जन व उपयोजन



and the final (semester-end) examination will be added together and then converted into a grade and later a grade point average. Results will be declared for each semester and the final examination will give total grades and grade point average.

2.Marks/Grade/Grade Point

| Marks | Grade | Grade Point |
|--------------|-----------------|--------------------|
| 100 to 75 | O: Outstanding | 06 |
| 74 to 65 | A: Very Good | 05 |
| 64 to 55 | B: Good | 04 |
| 54 to 50 | C: Average | 03 |
| 49 to 45 | D: Satisfactory | 02 |
| 44 to 40 | E: Pass | 01 |
| 39 to 0 | F: Fail | 00 |

3.Final Grade Points:

| Grade Points | Grade |
|---------------------|--------------|
| 05.00-6.00 | O |
| 04.50-04.99 | A |
| 03.50-04.49 | B |
| 02.50-03.49 | C |
| 01.50-02.49 | D |
| 00.50-01.49 | E |
| 00.00-00.49 | F |

University of Pune

M.A. SYLLABUS FOR SEMESTER AND CREDIT PATTERN.(M.A. Part I)

COURSE STRUCTURE

SEMESTER I & II

Core Courses – Sem- I

1. History and its Theory
2. Evolution of Ideas and Institutions in Ancient India
3. Maratha Polity

Optional courses (any 1)

1. Cultural History of Maharashtra
2. History of Medieval Deccan, 1295-1724
3. Social Background of Dalit Movement in Maharashtra
4. History and Philosophy of Science and Technology (Developments in the West)
5. U.S.A.: From Isolation to Hegemony
6. History of Art and Architecture in India: Ancient Period

SEMESTER II

Core Courses

4. History and its Practice
5. Evolution of Ideas and Institutions in Medieval India
6. Socio-economic History of the Marathas

Optional courses (any 1)

7. Marathas in 17th and 18th century Power Politics
8. Nature of Dalit Movement in Maharashtra
9. Economic History of Medieval India
10. Peasant Movements in India (Medieval and Modern)
11. History of Art and Architecture in India: Medieval Period
12. History of Science and Technology in India

Semester I: Core Paper No. 1

Credits: 4

Course Title: History and its Theory

Objectives

The paper is designed to provide adequate conceptual base, bring better understanding of history and its forces, help interrogate existing paradigms and challenge the outdated, help in developing critique, help research in terms of formulating hypotheses and develop broad frames of interaction with other social sciences and attain certain level of interdisciplinary approach.

Course Content

1. History:
 - a) Definition, nature, functions, concepts
 - b) Modes of interaction with Humanities and Social Sciences
2. History and its theories
 - a) Greco-Roman
 - b) Church
 - c) Arab
3. Emergence of Modern theories of history
 - a) Rationalist, Romanticist, Idealist
 - b) School of Scientific History
 - c) Materialist Theory of history
 - d) Positivism
4. Structuralism, Post-structuralism, Post modernism
5. Subaltern Studies

Select Readings

English

- Barry, Peter, *Beginning Theory: An introduction to literary and cultural theory*, Manchester University Press, New York, 1995.
- Carr, E.H., *What is History*, Penguin Books, Harmondsworth, 1971.
- Childs, Peter, *Modernism*, Routledge, London, 2000.
- Collingwood, R.G., *The Idea Of History*, Oxford University Press, New York, 1976.
- Eagleton, Terry, *Ideology*, Verso, 1991.
- Encyclopaedia of Social Sciences*
- Foucault, Michel, *The Archeology of Knowledge*, translated by Sheridan Smith, Tavistock Publications, London 1982.
- Hamilton, Paul, *Historicism*, London, Routledge, First Indian Edition, 2007.

UNIVERSITY OF PUNE

M.A. Political Science

Credit and Semester system (CSS)

Revised syllabus will be implemented with effect from the academic year 2013-2014 at College Centers

Syllabus for M. A. Part I

Syllabus for M.A. Part I Semester I

List of Compulsory Courses (C= Compulsory)

| Paper No | Papers Title |
|----------|---------------------------------|
| PO-C1 : | Political Theory |
| PO-C2 : | Public Administration |
| PO-C3 : | Political Institutions in India |

List of Optional Courses (O=Optional)

| | |
|---------|--|
| PO-O1 : | Modern Political Ideologies |
| PO-O2 : | Political Thinkers in Modern Maharashtra |
| PO-O3 : | India's Foreign Policy |
| PO-O4 : | Inequality and Exclusion |

UNIVERSITY OF PUNE

Political Science

Syllabus for M. A. Part I

Syllabus for M.A. Part I Semester II

List of Compulsory Courses (C= Compulsory)

Paper No Papers Title

- PO-C4 : Public policy**
- PO-C5 : Issues in World Politics**
- PO-C6 : Comparative Politics**

List of Optional Courses (O=Optional)

- PO-O5 : Political Process in Maharashtra**
- PO-O6 : State Politics in India**
- PO-O7 : Human Rights**
- PO-O8 : Social Movement in India**

UNIVERSITY OF PUNE
BOARD OF STUDY IN ECONOMICS
M.A. ECONOMICS - PART I (CREDIT & SEMESTER SYSTEM)
SYLLABUS : FROM JUNE 2013

| M.A. Part I Semester I | | M.A. Part I Semester II | |
|--|---------------------------|--|----------------------------|
| Core courses Compulsory Paper | | Core courses Compulsory Paper | |
| EC-1001 | Micro Economic Analysis I | EC-2001 | Micro Economic Analysis II |
| EC-1002 | Public Economics I | EC-2002 | Public Economics II |
| EC-1003 | International Trade | EC-2003 | International Finance |
| Non-Core course Any one of the following | | Non-Core course Any one of the following | |
| EC-1004 | Indian Economic Policy | EC-2004 | Agricultural Economics |
| EC-1005 | Labour Economics | EC-2005 | Industrial Economics |
| EC-1006 | Mathematical Economics | EC-2006 | Statistical Technique |

M.A. ECONOMICS PART I CREDIT & SEMESTER SYSTEM
REVISED SYLLABUS COMMITTEE.

| | |
|----------------------|----------------|
| Dr. Suhas Avhad | Chairman |
| Dr. N.R. Dangat | Coordinator |
| Dr. R.D.Jadhavar | BOS Member |
| Dr.Sahani Rohini | BOS Member |
| Dr. Santosh Dastane | Subject Expert |
| Dr. S.L. Matkar | Subject Expert |
| Dr. D.G Ushir | Subject Expert |
| Dr. Manjusha Musmade | Subject Expert |

Revised Syllabus

For

M. Sc. (Physics)

M.Sc. (Part I) (Revised for 2013-2014 and modified with 6 courses per semester):

To be implemented from Academic Year 2014-2015

M.Sc. (Part II): To be implemented from Academic Year 2014-2015

1) Title of the Course:

M.Sc. Physics

2) Preamble of the Syllabus:

Master of Science (M.Sc.) in Physics is a post graduation course of University of Pune. The credit system to be implemented through this curriculum, would allow students to develop a strong footing in the fundamentals and specialize in the disciplines of his/her liking and abilities.

The students pursuing this course would have to develop in depth understanding various aspects of the subject. The principles in Physics will be studied in depth. Students will have deeper understanding of laws of nature through the subjects like classical mechanics, quantum mechanics, electrodynamics, statistical physics etc. Students' ability of problem solving will be enhanced. Students can apply principles in physics to real life problems.

3) Introduction:

Salient Features of the Credit System:

1. Master's degree course in Physics would be of 100 credits, where one credit course of theory will be of one clock hour per week running for 15 weeks and one credit for practical course will consist of 10 of laboratory exercise including the revision and setting up the practical. Thus, each credit will be equivalent to 15 hours.
2. In a theory course, for one module, one credit is assigned. For one credit, ten lectures are assigned for actual teaching in the classroom and five additional lectures in each module are for seminars, discussions, home assignments and library work.
3. Student will have to take admission in Physics Department and complete 75 credits incorporated in the syllabus structure of Physics. The remaining 25 credits shall be chosen from courses offered by the Physics Department or other Departments of the University/College with credit system structure.
4. Except practical credits wherever applicable, students may be allowed to complete less courses per semester on the condition they complete the degree in maximum of four years. This facility will be available subject to the availability of concerned courses in a given semester and with a maximum variation of 25 credits (in case of fresh credits) per semester.
5. Every student shall complete 100 credits in a minimum of four semesters. All Semesters will have 25 credits each.
6. The student will be declared as failed if s/he does not pass in all credits within a total period of four years. After that such students will have to seek fresh admission as per admission rules prevailing at that time.
7. Academic calendar showing dates of commencement and end of teaching, internal assessment tests and term end examination will be prepared and duly notified before commencement of each semester every year.
8. Project course should not be greater than 10% of the total credits of the degree course. Project course is equivalent to 5 credits.

Instructions for the Students

The students seeking admission to M.Sc. Physics course is hereby informed that they are supposed to adhere to the following rules:

1. A minimum of 75 % attendance for lectures / practical is the pre-requisite for grant of term.
2. There shall be tutorial / practical / surprise test / home assignment / referencing of research papers / seminar / industrial visits / training course as a part of internal assessment in each semester. The students are supposed to attend all the tests. The students should note that re-test will not be given to the student absent for the test/s.
3. The students opting for dissertation course shall follow the rules framed for the same.

4) Eligibility:

The candidate should have a B.Sc. degree with Physics as principal subject or BE/BTech of any branch

Admission: Admissions will be given as per the selection procedure / policies adopted by the respective college, in accordance with conditions laid down by the University of Pune.

Reservation and relaxation will be as per the government rules.

5) Examination

[A] Pattern of Examination

Evaluation of Students:

- 1) Assessment shall consists of a) In semester continuous assessment and b)end-semester assessment. Both shall have an equal weightage of 50% marks each.
- 2) Student has to obtain 40% marks in the combined examination of In-Semester and End-Semester assessment with minimum passing of 30% passing in both assessments separately.
- 3) A student cannot register for third semester if s/he fails to complete the 50% credits of the total expected within two semesters.

Internal marks will not change. Student cannot repeat internal assessment. If student misses internal assessment examination, s/he will have second chance with the permission of the concerned teacher. But it will not be right of the student. It will be the discretion of the concerned teacher and internal departmental assessment committee. In case s/he wants to repeat Internal, s/he can do so only by registering for the said courses during 5th/6th semester whichever is applicable.

- 4) There shall be revaluation of answer script of end semester examination, but not of internal assessment papers.
- 5) Internal assessment answer scripts may be shown to the concerned student but not end semester answer script.

i. **In-semester Examination:** Internal assessment for each course would be continuous and dates for each tutorials/practical tests will be pre-notified in the time table for teaching or placed separately as a part of time table. Department / College Internal Assessment Committee will coordinate this activity

a) **Theory Courses:** Conducting written tests should not be encouraged. More focus should be on non-written tests. Students should be encouraged to conduct various academic activities. A teacher must select a variety of the procedures for internal assessment suggested as follows.

- a) Mid-term test
- b) On-line test
- c) Computer based examination
- d) Open book test (concerned teacher will decide the allowed books)
- e) Tutorial
- f) Surprise test
- g) Oral
- h) Assignments
- i) Review of research paper
- j) Seminar presentation
- k) Journal / Lecture / Library notes

Student has to preserve the documentation of the internal assessment except midterm test answer script. It is the responsibility of the student to preserve the documents.

b) **Practical Courses:** It is a continuous evaluation process. Practical courses will be evaluated on the basis of the following

1. Performance assessment of each experiment on the basis of attendance, punctuality, journal completion, practical skills, results, oral and analysis.
2. Test on practical may be conducted before the end-semester examination.
3. Assessment of each experiment shall be done for each practical weekly.

The student strength of practical batch should be eight. Note that one practical session is of 3 hour duration of one practical batch.

Project Course: Project will be evaluated by In-Charge of project batch in concern with project guide. Assessment will be done weekly in the respective batch. Evaluation will be on the basis of weekly progress of project work, progress report, referencing, oral, results and documentation.

ii. **End-Semester Examination:** End-Semester examination for 50 marks per course would be held about two weeks after completion of teaching for the semester. Paper setting and assessment for a particular course would be the responsibility of the course In-charge, and these activities would be coordinated by the Department Examination Committee. The Department Examination committee would undertake preparation of the result-sheets for the student

[B] Standard of Passing

Student has to obtain 40% marks in the combined examination of In-Semester and End-Semester assessment with minimum passing of 30% passing in both assessments separately.

[C] ATKT Rules

A student cannot register for third semester if s/he fails to complete the 50% credits of the total credits expected to be ordinarily completed within two semesters.

[D] Award of Class

Grades will be awarded from grade point average (GPA) of the credits.

GPA Rules:

1. The formula for GPA will be based on Weighted Average. The final GPA will not be printed unless a student passes courses equivalent to minimum 100 credit hours (Science). Total credits hours means the sum of credit hours of the courses which a student has passed.
2. A seven point grade system [guided by the Government of Maharashtra Resolution No. NGO – 1298 / [4619] / UNI 4 dt. December 11, 1999 and University regulations] will be followed. The corresponding grade table is attached herewith.
3. If the GPA is higher than the indicated upper limit in the third decimal digit then the student be awarded higher final grade (e.g. a student getting GPA of 4.492 may be awarded 'A')
4. For Semester I, II, III examinations, only the grade points will be awarded for each subject. Final GPA along with final grade will be awarded only at the end of IV semester. There is also a provision for verification and revaluation. In case of verification, the existing rules will be applicable. The revaluation result will be adopted if there is a change of at least 10% marks and in the grade of the course.
5. After the declaration of result, for the improvement of Grade, the student can reappear for the examination of 30 credits worth theory courses.
6. Grade improvement programme will be implemented at the end of the academic year. A student can opt for grade improvement programme only after the declaration of final semester examination i.e. at the end of next academic year after passing M.Sc. (Physics) examination and within two years of completion of M.Sc. (Physics). A student can appear for grade improvement programme only once.

| Grade and Grade Point Average | | | Final Grade Points | |
|-------------------------------|------------------|--------------|--------------------|-------------|
| Marks | Obtained Grade | Grade Points | Grade Points | Final Grade |
| 100 – 75 | 'O' Outstanding | 06 | 5.00 – 6.00 | O |
| 74 – 65 | 'A' Very Good | 05 | 4.50 – 4.99 | A |
| 64 – 55 | 'B' Good | 04 | 3.50 – 4.49 | B |
| 54 – 50 | 'C' Average | 03 | 2.50 – 3.49 | C |
| 49 – 45 | 'D' Satisfactory | 02 | 1.50 – 2.49 | D |
| 44 – 40 | 'E' Pass | 01 | 0.50 – 1.49 | E |
| 39 -0 | 'F' Fail | 00 | 0.00 – 0.49 | F |

Common Formula for Grade Point Average (GPA):

i) Semester Grade Point Average (SGPA):

$$SGPA = \frac{\sum_{i=1}^p C_i G_i}{\sum_{i=1}^p C_i}$$

$$SGPA = \frac{\sum \text{Grade Point s Earned} \times \text{Credits for each course}}{\text{Total Credits}}$$

ii) Cumulative Grade Point Average (CGPA):

$$CGPA = \frac{\sum_{i=1}^p C_i G_i}{\sum_{i=1}^p C_i}$$

$$CGPA = \frac{\sum \text{Total Point s Earned} \times \text{Credits for each course}}{\text{Total Credits}}$$

B Grade is equivalent to at least 55% of the marks as per circular No. UGC 1298/[4619]UNI-4 dated December 11, 1999.

IF GPA is higher than the indicated higher limit in the three decimal digit, then student be awarded higher final grade (eg. A student getting GPA of 4.492 may be awarded 'A').

[E] External Students: There shall be no external students.

[F] Setting of Question Paper / Pattern of Question Paper

For core (compulsory) theory courses end semester question papers set by the University of Pune and centralized assessment for theory papers done as per the University instructions. Questions should be designed to test the conceptual knowledge and understanding of the basic concepts of the subject.

Theory examination will be of 2 hours duration for each theory course of 5 credits. There shall be 3 questions each carrying marks as shown below. The pattern of question papers shall be:

| | |
|--------------------------|---|
| Question 1 (20 Marks) | 10 compulsory sub-questions, each of 2 marks |
| Question 2 (20 Marks) | 5 out of 7– short answer type questions |
| Question 3 (10 Marks) | 2 out of 3 – problem type question; answerable in numerical or analytical fashion |

[G] Verification / Revaluation

There is also a provision for verification and revaluation. In case of verification, the existing rules will be applicable. The revaluation result will be adopted if there is a change of at least 10% marks and in the grade of the course. There shall be revaluation of answer script of end semester examination, but not of internal assessment papers.

6) Structure of Course

Basic structure/pattern (Framework) of the proposed postgraduate syllabus for the two year integrated course leading to M.Sc. (Physics) in the colleges affiliated to Pune University.

Structure of Syllabus

Structure of M.Sc. (Physics) Syllabus

(For Affiliated Colleges)

Revised Syllabus to be implemented from June 2014

Total Credits: 100

Semester I

| Course Number | Course Name |
|---------------|---|
| PHYUT501 | Classical Mechanics (4 Credits) |
| PHYUT502 | Electronics (4 Credits) |
| PHYUT503 | Mathematical Methods in Physics (4Credits) |
| PHYUT504 | Atoms and Molecules (4 Credits) |
| PHYUT505 | Experimental Techniques in Physics I(4 Credits) |
| PHYUP506 | Physics Lab I (5 Credits) |

Semester II

| Course Number | Course Name |
|---------------|---|
| PHYUT601 | Electrodynamics (4 Credits) |
| PHYUT602 | Solid State Physics (4 Credits) |
| PHYUT603 | Quantum Mechanics I (4 Credits) |
| PHYUT604 | Lasers (4Credits) |
| PHYUT605 | Experimental Techniques in Physics II(4Credits) |
| PHYUP606 | Physics Lab II (5 Credits) |

Semester III

| Course Number | Course Name |
|---------------|---|
| PHYUT701 | Statistical Mechanics in Physics (4 Credits) |
| PHYUT702 | Physics of Semiconductor Devices/Quantum Mechanics II (4 Credits) |
| PHYDT703 | Departmental Course I (4 Credits) |
| PHYDT704 | Departmental Course II (4 Credits) |
| PHYDP705 | Special Lab I (4 Credits) |
| PHYUP706 | Physics Lab III (5 Credits) |

Semester IV

| Course Number | Course Name |
|---------------|-------------------------------------|
| PHYUT801 | Nuclear Physics (4 Credits) |
| PHYUT802 | Material Science (4 Credits) |
| PHYDT803 | Departmental Course III (4 Credits) |
| PHYDT804 | Departmental Course IV (4 Credits) |
| PHYDP805 | Special Lab II (4 Credits) |
| PHYUP806 | Physics Lab IV; Project (5 Credits) |

List of Departmental Courses

| | |
|--|---|
| Departmental Course I Semester III PHYDT703/PHYDT704 (4 credits) | Departmental Course II Semester IV PHYDT803/PHYDT804 (4credits) |
| Medical physics I | Medical physics II |
| Acoustics I | Acoustics II |
| Energy Studies I | Energy Studies II |
| Physics of Thin Films | Physics of Nano materials |
| Astronomy and Astrophysics I | Astronomy and Astrophysics II |
| Electronic Instrumentation-I | Electronic Instrumentation-II |
| Communication Electronics | Microwave Physics and Applications |
| Biomedical Instrumentation I | Biomedical Instrumentation II |
| Atmospheric Physics I | Atmospheric Physics II |
| Nuclear Techniques I | Nuclear Techniques II |
| Microcontroller Based Instrumentation System – I | Microcontroller Based Instrumentation System – II |

The college can start any two of the departmental courses in 3rd semester and corresponding two courses shown against the 3rd semester course in 4th semester.

University of Pune

Two Year M. Sc. Degree Course in Chemistry

M. Sc. Chemistry

(Credit and Semester based Syllabus to be implemented from Academic Year 2013-14)

1) Title of the Course: M.Sc. Chemistry

2) Preamble of the Syllabus:

Master of Science (M.Sc.) in Chemistry is a post graduation course of University of Pune. The credit system to be implemented through this curriculum, would allow students to develop a strong footing in the fundamentals and specialize in the disciplines of his/her liking and abilities.

The students pursuing this course would have to develop in depth understanding of various aspects of the subject. The conceptual understanding, development of experimental skills, designing and implementation of novel synthetic methods, developing the aptitude for academic and professional skills, acquiring basic concepts for structural elucidation with hyphenated techniques, understanding the fundamental biological processes and rationale towards computer assisted drug designing are among such important aspects.

3) Introduction:

Sallent Features of the Credit System:

1. Master's degree course in Chemistry would be of 100 credits, where one credit course of theory will be of one clock hour per week running for 15 weeks and one credit for practical course will consist of 15 of laboratory exercise including the revision and setting up the practical. Thus, each credit will be equivalent to 15 hours.
2. Student will have to take admission in Chemistry Department and complete 75 credits incorporated in the syllabus structure of Chemistry. The remaining 25 credits shall be chosen from courses offered by the Chemistry Department or other Departments of the University/College with credit system structure.
3. Except practical credits wherever applicable, students may be allowed to complete less courses per semester on the condition they complete the degree in maximum of four years. This facility will be available subject to the availability of concerned courses in a given semester and with a maximum variation of 25 credits (in case of fresh credits) per semester.
4. Every student shall complete 100 credits in a minimum of four semesters. All Semesters will have average 25 credits each.
5. The student will be declared as failed if s/he does not pass in all credits within a total period of four years. After that such students will have to seek fresh admission as per admission rules prevailing at that time.
6. Academic calendar showing dates of commencement and end of teaching, internal assessment tests and term end examination will be prepared and duly notified before commencement of each semester every year.
7. Project course should not be greater than 5% of the total credits of the degree course. Project course is equivalent to 4 credits.

Instructions for the Students

The students seeking admission to M.Sc. Chemistry course is hereby informed that they are supposed to adhere to the following rules:

1. A minimum of 75 % attendance for lectures / practical is the pre-requisite for grant of term.
2. There shall be tutorial / practical / surprise test / home assignment / referencing of research papers / seminar / industrial visits / training course as a part of internal assessment in each semester. The students are supposed to attend all the tests. The students should note that re-test will not be given to the student absent for the test/s.
3. The students opting for dissertation course shall follow the rules framed for the same.
4. Industrial / Institute - Visit and or Industrial Workshops / Laboratory Workshops / Training Programme is a compulsory component of the syllabus. The students are supposed to attend all the Industrial Workshops / Laboratory Workshops / Training Programme organized by the department. The students shall attend these programs at their own cost.

4) Eligibility:

The candidate should have a B.Sc. degree with Chemistry as principal subject **OR** B.Sc. (General) degree with Chemistry (Electronics) as one of the subsidiary subjects.

Admission: Admissions will be given as per the selection procedure / policies adopted by the respective college, in accordance with conditions laid down by the University of Pune.

Reservation and relaxation will be as per the government rules.

5) Examination

[A] Pattern of Examination

Evaluation of Students:

- 1) The In-semester and End-Semester examinations will be of 50 marks each.
- 2) Student has to obtain 40% marks in the combined examination of In-Semester and End-Semester assessment with minimum passing of 30% passing in both assessments separately.
- 3) A student cannot register for third semester if s/he fails to complete the 50% credits of the total expected within two semesters.
- 4) Internal marks will not change. Student cannot repeat internal assessment. If student misses internal assessment examination, s/he will have second chance with the permission of the concerned teacher. But it will not be right of the student. It will be the discretion of the concerned teacher and internal departmental assessment committee. In case s/he wants to repeat Internal, s/he can do so only by registering for the said courses during 5th/6th semester whichever is applicable.
- 5) There shall be revaluation of answer script of end semester examination, but not of internal assessment papers.
- 6) Internal assessment answer scripts may be shown to the concerned student but not end semester answer script.

i. **In-semester Examination:** Internal assessment for each course would be continuous and dates for each tutorials/practical tests will be pre-notified in the time table for teaching or placed separately as a part of time table. Department / College Internal Assessment Committee will coordinate this activity

a) **Theory Courses:** Conducting written tests should not be encouraged. More focus should be on non-written tests. Students should be encouraged to conduct various academic activities. A teacher must select a variety of the procedures for internal assessment suggested as follows.

- a) Mid-term test
- b) On-line test
- c) Computer based examination
- d) Open book test (concerned teacher will decide the allowed books)
- e) Tutorial
- f) Surprise test
- g) Oral
- h) Assignments
- i) Review of research paper
- j) Seminar presentation
- k) Journal/Lecture/Library notes

Student has to preserve the documentation of the internal assessment except midterm test answer script. It is the responsibility of the student to preserve the documents.

b) **Practical Courses:** It is a continuous evaluation process. Practical courses will be evaluated on the basis of the following

1. Performance assessment of each experiment on the basis of attendance, punctuality, journal completion, practical skills, results, oral and analysis.
2. Test on practical may be conducted before the end-semester examination.
3. Assessment of each experiment shall be done for each practical weekly.
4. Assessment of the Activity will be based on any one of the following per practical course.
 - i. Experimental and analytical skills
 - ii. Synthesis of compounds
 - iii. Evaluation of physical constants, purity of compounds
 - iv. Fundamental understanding of instrumental techniques
 - v. Recording and analysis of spectral data
 - vi. Economic utilization of chemicals
 - vii. Basic understanding of the experiment

The student strength of practical batch should be eight. Note that one practical session of 4 hour duration of one practical batch.

Project Course: Project will be evaluated by In-Charge of project batch in concern with project guide. Assessment will be done weekly in the respective batch. Evaluation will be on the basis of weekly progress of project work, progress report, referencing, oral, results and documentation.

- ii. **End-Semester Examination:** End-Semester examination for 50 marks per course would be held about two weeks after completion of teaching for the semester. Paper setting and assessment for a particular course would be the responsibility of the course In-charge, and these activities would be coordinated by the Department Examination Committee. The Department Examination committee would undertake preparation of the result-sheets for the student

[B] Standard of Passing

Student has to obtain 40% marks in the combined examination of In-Semester and End-Semester assessment with minimum passing of 30% passing in both assessments separately.

[C] ATKT Rules

A student cannot register for third semester if s/he fails to complete the 50% credits of the total credits expected to be ordinarily completed within two semesters.

[D] Award of Class

Grades will be awarded from grade point average (GPA) of the credits.

GPA Rules:

1. The formula for GPA will be based on Weighted Average. The final GPA will not be printed unless a student passes courses equivalent to minimum 100 credit hours (Science). Total credits hours means the sum of credit hours of the courses which a student has passed.
2. A seven point grade system [guided by the Government of Maharashtra Resolution No. NGO – 1298 / [4619] / UNI 4 dt. December 11, 1999 and University regulations] will be followed. The corresponding grade table is attached herewith.
3. If the GPA is higher than the indicated upper limit in the third decimal digit then the student be awarded higher final grade (e.g. a student getting GPA of 4.492 may be awarded 'A')
4. For Semester I, II, III examinations, only the grade points will be awarded for each subject. Final GPA along with final grade will be awarded only at the end of IV semester. There is also a provision for verification and revaluation. In case of verification, the existing rules will be applicable. The revaluation result will be adopted if there is a change of at least 10% marks and in the grade of the course.
5. After the declaration of result, for the improvement of Grade, the student can reappear for the examination of 30 credits worth theory courses.
6. Grade improvement programme will be implemented at the end of the academic year. A student can opt for grade improvement programme only after the declaration of final semester examination i.e. at the end of next academic year after passing M.Sc. (Chemistry) examination and within two years of completion of M.Sc. (Chemistry). A student can appear for grade improvement programme only once.

| Grade and Grade Point Average | | |
|-------------------------------|------------------|--------------|
| Marks | Obtained Grade | Grade Points |
| 100 – 75 | 'O' Outstanding | 06 |
| 74 – 65 | 'A' Very Good | 05 |
| 64 – 55 | 'B' Good | 04 |
| 54 – 50 | 'C' Average | 03 |
| 49 – 45 | 'D' Satisfactory | 02 |
| 44 – 40 | 'E' Pass | 01 |
| 39 and less | 'F' Fail | 00 |

| Final Grade Points | |
|--------------------|-------------|
| Grade Points | Final Grade |
| 5.00 – 6.00 | O |
| 4.50 – 4.99 | A |
| 3.50 – 4.49 | B |
| 2.50 – 3.49 | C |
| 1.50 – 2.49 | D |
| 0.50 – 1.49 | E |
| 0.00 – 0.49 | F |

Common Formula for Grade Point Average (GPA):

$$\text{GPA} = \frac{\text{Total of Grade Points earned} \times \text{Credit hours for each course}}{\text{Total Credit hours}}$$

B Grade is equivalent to at least 55% of the marks

[E] **External Students:** There shall be no external students.

[F] **Setting of Question Paper / Pattern of Question Paper**

For core (compulsory) theory courses, end semester question papers set by the University of Pune and centralized assessment for theory papers done as per the University instructions. Questions should be designed to test the conceptual knowledge and understanding of the basic concepts of the subject.

Theory examination will be of 2 hours duration for each theory course of 5 credits. There will be **two sections** for each paper. Each section will be of **25 marks** and the pattern of question paper shall be:

| | |
|--------------------------|--|
| Question 1 (10 Marks) | 5 compulsory sub-questions, each of 2 marks; answerable in 2-3 lines |
| Question 2 (10 Marks) | 2 out of 4 – short answer type questions of 5 marks each; answerable in 8 – 10 lines |
| Question 3 (5 Marks) | 1 out of 2 – numerical problem type question; note, spectral analysis, functioning of instrumental technique with components |

[G] Verification / Revaluation

There is also a provision for verification and revaluation. In case of verification, the existing rules will be applicable. The revaluation result will be adopted if there is a change of at least 10% marks and in the grade of the course. There shall be revaluation of answer script of end semester examination, but not of internal assessment papers.

6) Structure of Course

Basic structure/pattern (Framework) of the proposed postgraduate syllabus for the two year integrated course leading to M.Sc. (Chemistry) in the colleges affiliated to Pune University.

a) Compulsory Papers

Theory: CHP-110, CHP-210, CHI-130, CHI-230, CHO-150, CHO-250,
CHA-290

Practical: CHP-107, CHI-147, CHO-247

M. Sc. Chemistry - Course structure & Credits Distribution

| Semester | Course Code | Course Title | No. of Units | No. of credits |
|----------|-------------|---|-----------------------|----------------|
| Sem-I | CHP-110 | Fundamentals of Physical Chemistry-I | 04 | 04 |
| | CHI-130 | Molecular Symmetry & Chemistry of p-block elements | 04 | 04 |
| | CHO-150 | Basic organic chemistry | 04 | 04 |
| | CHA-190 | Safety in Chemical Laboratory and Good Laboratory Practices | 04 | 04 |
| | CHP-107 | Practical Course (Physical Chemistry) | 24 Practical Sessions | 06 |
| | CHI-147 | Practical Course (Inorganic Chemistry) | 24 Practical Sessions | 06 |
| Sem-II | CHP-210 | Fundamentals of Physical Chemistry-II | 04 | 04 |
| | CHI-230 | Coordination and Bioinorganic Chemistry | 04 | 04 |
| | CHO-250 | Synthetic organic chemistry and spectroscopy | 04 | 04 |
| | CHA-290 | General Chemistry | 04 | 04 |
| | CHO-247 | Practical Course (Organic Chemistry) | 24 Practical Sessions | 06 |

b) Question Papers and papers etc.:

Theory

| | |
|---------------------------|----------|
| In-Semester Examination: | 50 Marks |
| End-Semester Examination: | 50 Marks |

Practical

| | |
|---------------------------|----------|
| In-Semester Examination: | 50 Marks |
| End-Semester Examination: | 50 Marks |

c) **Medium of Instructions:** English.

7) Equivalence of Previous Syllabus:

| New Course (5 credit pattern; 20013-14 Pattern) | New Course (4 Credit pattern; 2014 - 15 Pattern) |
|---|--|
| CH-110 | CHP-110 |
| CH-130 | CHI-130 |
| CH-150 | CHO-150 |
| - | CHA-190 |
| CH-107 | CHP-107 |
| CH-127 | CHI-127 |
| CH-210 | CHP-210 |
| CH-230 | CHI-230 |
| CH-250 | CHO-250 |
| CH-290 | CHA-290 |
| CH-247 | CHO-247 |

8) University Terms:

Dates for commencement and conclusion for the first and second terms will be declared by the University authorities. Terms can be kept by only for duly admitted students. The term shall be granted only on minimum 75 percent attendance at theory and practical course and satisfactory performance during the term.

9) Qualification of Teacher:

- M.Sc. (Chemistry) degree with NET/SET qualification.
- Recognition of Pune University as a post graduate teacher, by papers.

M.Sc. Botany Syllabus Credit System Course structure

M.Sc. I Botany: (Implemented from 2013-2014)

Semester I:

| | |
|---|-------|
| BO 1.1 Cryptogamic Botany I- Bryophytes and Pteridophytes | (60L) |
| BO 1.2 Biochemistry and Plant Physiology | (60L) |
| BO 1.3 Genetics and Plant Breeding | (60L) |
| BO 1.4 Botanical Techniques | (60L) |
| BO 1.5 Practical based on BO 1.1 and BO 1.4 | |
| BO 1.6 Practical based on BO 1.2 and BO 1.3 | |

Semester II:

| | |
|--|-------|
| BO 2.1 Cryptogamic Botany II- Algae and Fungi | (60L) |
| BO 2.2 Cell Biology and Evolution | (60L) |
| BO 2.3 Molecular Biology and Genetic Engineering | (60L) |
| BO 2.4 Plant Ecology and Phytogeography | (60L) |
| BO 2.5 Practical based on BO 2.1 and BO 2.2 | |
| BO 2.6 Practical based on BO 2.3 and BO 2.4 | |

M.Sc. II Botany (Implemented from 2014-2015)

Semester III:

| | |
|--|-------|
| BO. 3.1. Spermatophytic Botany | (60L) |
| BO. 3.2. Developmental and Economic Botany | (60L) |
| BO. 3.3. Industrial Botany I | (60L) |
| BO. 3.4. Special Botany Paper (from BO 3.41 to BO. 3.50) | (60L) |

| | |
|--|--|
| BO 3.41. Advanced Mycology | |
| BO 3.42. Advanced Angiosperms | |
| BO 3.43. Advanced Physiology | |
| BO 3.44. Advanced Genetics and Molecular Biology | |
| BO 3.45. Advanced Biotechnology | |
| BO 3.46. Advanced Medicinal Botany | |
| BO 3.47. Advanced Environmental Botany | |
| BO 3.48. Advanced Seed Technology | |
| BO 3.49. Advanced Horticulture and Floriculture | |
| BO 3.50. Advanced Biodiversity | |

| | |
|--|--|
| BO 3.5. Practicals based on BO 3.1., BO. 3.2. and BO.3.3. | |
| BO. 3.6. Practicals based on Special Paper BO. 3.41 to BO 3.50 | |

Semester IV:

| | |
|------------------------------------|-------|
| BO 4.1. Computational Botany | (60L) |
| BO 4.2. Plant Organism Interaction | (60L) |

UNIVERSITY OF PUNE, PUNE.

Syllabus for M.Sc/M. A.

Subject: MATHEMATICS

(With effect from June 2013)

Introduction:

University of Pune has decided to change the syllabi of various faculties from June,2013. Taking into consideration the rapid changes in science and technology and new approaches in different areas of mathematics and related subjects, Board of studies in Mathematics after a thorough discussion with the teachers of Mathematics from different colleges affiliated to University of Pune has prepared the syllabus of M.Sc/M. A. Mathematics course. The model curriculum as developed by U. G. C. served as a guideline for the present syllabus.

Aims:

- i) Strengthening the understanding of the students and substantiating the conceptual framework of the Graduates in Mathematics for furthering their potential and capabilities in the subject.
- ii) Introducing advanced theories in the subject in an orderly manner with a clearly defined path of interdependence.
- iii) Introducing the specializations in different areas of Mathematics and at the same time emphasizing the underlying interconnections in different branches of Mathematics.
- iv) Generating more interest in the subject and motivating students for self learning beyond the realm of syllabi and examinations.
- v) Inculcating the spirit of inquiry among the students and preparing them to take up the research in Mathematics.
- vi) Exhibiting the wide range of applications of Mathematics and preparing students to apply their knowledge in diverse areas such as Physics, Astronomy, Biology, Social Sciences, etc.

Objectives:

- (i) A student should be able to understand the proof techniques in Mathematics and importance of theorems for sorting out typical examples.
- (ii) A student should acquire sufficient technical competence to solve the problems of varying difficulty levels and high notational complexity.
- (iii) A student should be able to make observations, experimentation and pattern recognition which would stimulate the research potential
- (iv) A student should acquire the communication skill to present technical Mathematics so as to take up a career in Teaching Mathematics at various levels including schools, colleges, universities, etc.

Eligibility: 1. Bachelor of Science with Mathematics or/Mathematics atleast upto second year B.E./B.Tech.

2. B.A. or B.Sc. with mathematics (special or subsidiary).

3. Other rules and regulations of the University of Pune.

Structure of the course:

1. There are five compulsory courses in semester I and five compulsory courses in semester II.
2. There are three compulsory courses and two departmental courses in semester III and three compulsory courses and two departmental courses in semester IV.
3. The list of compulsory as well as departmental courses is given below.
4. The evaluation pattern will be according to the credit system to be introduced at post-graduate centres in the affiliated colleges.

Medium of Instruction: English

Examination:

A) **Pattern of examination:** Semester

B) **Standard of passing** : As per credit system.

C) **Pattern of question papers:** As per credit system

D) **External Students:** Allowed.

E) **Verification/Revaluation:** Allowed for all courses

Equivalence of Previous syllabus along with new syllabus:

| Sr.No | Old Course | New (Equivalent) Course |
|-------|--|--|
| 1 | MT 501 (Real Analysis) | MT 501 (Real Analysis) |
| 2 | MT 502 (Advanced Calculus) | MT 502 (Advanced Calculus) |
| 3 | MT 503 (Linear Algebra) | MT 604 (Linear Algebra) |
| 4 | MT 504 (Number Theory) | MT 801 (Number Theory) |
| 5 | MT 505 (Ordinary Differential Equations) | MT 505 (Ordinary Differential Equations) |
| 6 | MT 601 (General Topology) | MT 602 (General Topology) |
| 7 | MT 602 (Differential Geometry) | MT 802 (Differential Geometry) |
| 8 | MT 603 (Groups and Rings) | MT 503 (Group Theory) |
| 9 | MT 604 (Complex Analysis) | MT 601 (Complex Analysis) |
| 10 | MT 605 | MT 605 |

| | (Partial Differential Equations) | (Partial Differential Equations) |
|----|---|--|
| 11 | MT 606 Object Oriented Programming Using C++ | |
| 12 | MT 701 (Functional Analysis) | MT 703 (Functional Analysis) |
| 13 | MT 702 (Rings and Modules) | MT 603 (Rings and Modules) |
| 14 | MT 703 (Mechanics) | MT 705(Departmental) (Classical Mechanics) |
| 15 | MT 704 (Measure and Integration) | |
| 16 | MT 705 (Graph Theory) | MT 704(Departmental) (Graph Theory) |
| 17 | MT 801 (Field Theory) | MT 702 (Field Theory) |
| 18 | MT 802 (Combinatorics) | MT 701 (Combinatorics) |
| 19 | MT 803 (Differential Manifolds) | |
| 20 | MT 804 (Algebraic Topology) | |
| 21 | MT 805 (Lattice Theory) | MT 804 (Lattice Theory) |

Qualifications of Teacher: M.Sc. Mathematics (with NET /SET as per existing rules)

M. Sc. (Mathematics) Syllabus

M.Sc. I All courses are compulsory.

Semester I

- i) Real Analysis
- ii) Advanced Calculus
- iii) Group theory
- iv) Numerical Analysis
- v) Ordinary Differential Equations

Semester II

- i) Complex Analysis
- ii) Topology
- iii) Rings and Modules
- iv) Linear Algebra
- v) Partial Differential Equations

M.Sc. II

There will be three compulsory courses and two departmental courses in both the semesters.

Compulsory courses:

Semester III

- i) Combinatorics
- ii) Field Theory
- iii) Functional Analysis

Departmental courses: (Any Two)

- i) Graph Theory
- ii) Classical Mechanics
- iii) Topics in Algebra
- iv) Topics in Analysis
- v) Topics in Geometry
- vi) Discrete Mathematics
- vii) Applied Mathematics
- viii) C language

Semester IV

- i) Number theory
- ii) Differential Geometry
- iii) Fourier Analysis

- i) Lattice Theory
- ii) Operations Research
- iii) Topics in Algebra
- iv) Topics in Analysis
- v) Topics in Geometry
- vi) Discrete Mathematics
- vii) Applied Mathematics
- viii) C++ language

The syllabi of first two departmental courses will be provided by the University.

Semester I

MT - 501: Real Analysis

1. Measure Theory: Preliminaries, Exterior Measure, Measurable Sets and Lebesgue Measure, Measurable Functions.
2. Integration Theory: The Lebesgue Integral, basic properties and convergence theorems. The space L^1 of integrable functions, Fubini's theorem.
3. Differentiation and Integration: Differentiation of the integral, Good kernels and approximation to the identity, differentiation of functions.

Text Book: Real Analysis, E. Stein and R. Shakharchi, New Age International Publishers, Princeton Lecture Notes III. Chapter 1 - Sections 1 to 4, Chapter 2 - Sections 1 to 3, Chapter 3 - Sections 1 to 3.

Reference Books:

1. Karen Saxe : Beginning Functional Analysis (Springer International Edition)
2. N. L. Carothers: Real Analysis (Cambridge University Press)
3. W. Rudin : Principles of Mathematical Analysis (Mc-Graw Hill)
4. H. Royden, Real Analysis, McMillan Publishing Company

MT - 502: Advanced Calculus

1. Derivative of a scalar field with respect to a vector, Directional derivative, Gradient of a scalar field, Derivative of a vector field, Matrix form of the chain rule, Inverse function theorem and Implicit function theorem.
2. Path and line integrals, The concept of work as a line integral, Independence of path, The first and the second fundamental theorems of calculus for line integral, Necessary condition for a vector field to be a gradient.
3. Double integrals, Applications to area and volume, Green's Theorem in the plane, Change of variables in a double integral, Transformation formula, Change of variables in an n-fold integral.
4. The fundamental vector product, Area of a parametric surface, Surface integrals, The

University of Pune

M. A. English Part-II-Credit System (Semester III & IV)

from the academic year 2014-15-

Semester-III

Paper 3.1: Indian Writing in English (Core Paper)

Any three papers out of the following eight options:

Paper 3.2: English Language and Literature Teaching

Paper 3.3: Poetry in English

Paper 3.4: Drama in English

Paper 3.5: Linguistics and Stylistics

Paper 3.6: Semantics and Pragmatics

Paper 3.7: Cultural Studies

Paper 3.8: American Literature

Paper 3.9: Research Methodology

Semester-IV

Paper 4.1: Indian Writing in English (Core Paper)

Any three papers out of the following eight options:

Paper 4.2: English Language and Literature Teaching

Paper 4.3: Poetry in English

Paper 4.4: Drama in English

Paper 4.5: Linguistics and Stylistics

Paper 4.6: Semantics and Pragmatics

Paper 4.7: Cultural Studies

Paper 4.8: American Literature

Paper 4.9: Research Methodology



पुणे विद्यापीठ

मराठी

एम. ए. (द्वितीय वर्ष)

श्रेयांक पद्धतीवर आधारित पुनर्रचित अभ्यासक्रम

जून २०१४ - १५ पासून

तृतीय सत्र

- अभ्यासपत्रिका क्र. ५ : प्रसारमाध्यमे आणि साहित्यव्यवहार
अभ्यासपत्रिका क्र. ६ : साहित्य : समीक्षा व संशोधन
अभ्यासपत्रिका क्र. ७ : विशेष लेखकाचा अभ्यास (मध्ययुगीन / अर्वाचीन)
अभ्यासपत्रिका क्र. ८ : ऐच्छिक
- १ लोकसाहित्याची मूलतत्त्वे आणि मराठी लोकसाहित्य
 - २ सौंदर्यशास्त्र
 - ३ लेखनविद्या
 - ४ मराठीतील वैचारिक साहित्य
 - ५ साहित्य: सर्जन व उपयोजन

चतुर्थ सत्र

- अभ्यासपत्रिका क्र. ५ : प्रसारमाध्यमे आणि साहित्यव्यवहार
अभ्यासपत्रिका क्र. ६ : साहित्य : समीक्षा व संशोधन
अभ्यासपत्रिका क्र. ७ : विशेष लेखकाचा अभ्यास (मध्ययुगीन / अर्वाचीन)
अभ्यासपत्रिका क्र. ८ : ऐच्छिक
- १ लोकसाहित्याची मूलतत्त्वे आणि मराठी लोकसाहित्य
 - २ सौंदर्यशास्त्र
 - ३ निबंध लेखन
 - ४ साहित्याचा सामाजिक दृष्टीने अभ्यास
 - ५ साहित्य : सर्जन व उपयोजन

UNIVERSITY OF PUNE

From 2014-15

Revised Syllabus M.A., (History), Credit & Semester System

Semester III

Core Courses

7. Ancient and Medieval Civilizations of the World
8. Debates in Indian History
9. Economic History of Modern India

Optional Courses (Any 1)

13. Maharashtra in the 19th Century
14. British Administrative policies in India, 1765-1892
15. Gender and Indian History
16. East Asia: China 1900-2000.
17. Archival Studies
18. Maritime History of India (800 A. D. – 1800 A. D.)

SEMESTER IV

Core Courses

10. History of Modern India (1857-1971)
11. Intellectual History of the Modern West
12. World after World War II (1945-2000)

Optional Courses (Any 1)

19. Maharashtra in the 20th Century
20. Socio-Religious Reform Movements in South India
21. Urban History
22. East Asia : Japan (1853-2000)
23. History of Environment and Ecology
24. Business History of India (1858-1991)

UNIVERSITY OF PUNE

Political Science Syllabus for M. A. Part II

Credit and Semester System to be implemented from 2013-14 at
college centers
M. A. Part II Semester III

List of Compulsory Courses (C = Compulsory)

| Paper No. | Paper title |
|-----------|------------------------------------|
| PO-C7: | POLITICAL THINKING IN MODERN INDIA |
| PO-C8: | POLITICAL SOCIOLOGY |
| PO-C9: | THEORY OF INTERNATIONAL RELATIONS |

List of Optional Courses (O = Optional)

| | |
|---------|---------------------------------------|
| PO-O9: | COMPARATIVE POLITICS II |
| PO-O10: | INDIAN ADMINISTRATION |
| PO-O11: | POLITICS OF NON-DEMOCRATIC REGIMES |
| PO-O12: | RESEARCH METHODS IN POLITICAL SCIENCE |

M. A. Part II Semester IV

List of Compulsory Courses (C = Compulsory)

| Paper No. | Paper title |
|-----------|---------------------------------|
| PO-C10: | TRADITIONS OF POLITICAL THOUGHT |
| PO-C11: | POLITICAL PROCESS IN INDIA |
| PO-C12: | POLITICAL PARTICIPATION |

List of Optional Courses (O = Optional)

| | |
|---------|-------------------------------------|
| PO-O13: | POLITICAL THOUGHT OF DR.AMBEDKAR |
| PO-O14: | PARTY SYSTEM IN INDIA |
| PO-O15: | CO-OPERATION IN ASIA PACIFIC REGION |
| PO-O16: | POLITICAL ECONOMY OF INDIA |

UNIVERSITY OF PUNE
Board of Studies in Economics
REVISED SYLLABUS

For
M.A. Part II (Credit system)
(Course to be started from June 2014)

The students will have *THREE* Core courses and will have to select *ONE* Non-Core course in each of the two semesters, in M.A. Part II. There will be *Four* courses in each of the two semesters for M.A.

| M.A. Part II Semester III | | M.A. Part II Semester IV | |
|--|------------------------|--|--------------------------|
| Core Courses | | Core Courses | |
| EC-3001 | Macro Economics I | EC-4001 | Macro Economics II |
| EC-3002 | Growth & Development I | EC-4002 | Growth & Development II |
| EC-3003 | Modern Banking | EC-4003 | Research Methodology |
| Non- Core Courses (Any one course to be selected) | | Non- Core Courses (Any one course to be selected) | |
| EC-3004 | Demography | EC-4004 | Rural Development |
| EC-3005 | World Economy | EC-4005 | Economics of Environment |
| EC-3006 | Economics of Finance | EC-4006 | Econometrics |

M.A. Economics Revised Syllabus Committee.

| Sr.no | Name | Designation |
|-------|----------------------|-------------|
| 1 | Dr. Suhas Avhad | Chairman |
| 2 | Dr. Dangat N.R. | Coordinator |
| 3 | Dr. Jadhavar R.D | Member |
| 4 | Dr. Sahni Rohini | Member |
| 5 | Dr. Dastane Santosh | Member |
| 6 | Dr. Matkar S.C | Member |
| 7 | Dr. Satam Madhu | Member |
| 8 | Dr. Musmade Manjusha | Member |
| 9 | Dr. Malika Misri | Member |
| 10 | Dr. Ushir D. G. | Member |

UNIVERSITY OF PUNE

M.A. / M. Sc Syllabus in Geography (Credit System)

From- June, 2014

SEMESTER – III

| COURSE CODE | COURSE TITLE | CREDITS PER COURSE | CREDITS TO BE COMPLETED | |
|--|--|---------------------------|--------------------------------|----------------------|
| | CORE COURSES | | COURSE WISE | SEMESTER WISE |
| Gg-301 | Geography of India with special Reference to Maharashtra | 3 | 3 | |
| | One of the following according to Specialization | | | |
| Gg-310 | Tropical Geomorphology | 3 | 3 | |
| Gg-311 | Applied climatology | 3 | | |
| Gg-312 | Trade and Transport Geography | 3 | | |
| Gg-313 | Urban Geography | 3 | | |
| | One of the following | | | |
| Gg-320 | Multivariate Statistics | 3 | 3 | |
| Gg-321 | Political Geography | 3 | | |
| Gg-322 | Geography of Soils | 3 | | |
| | One of the following according to Specialization | | | |
| Gg-330 | Practicals in Geomorphology | 3 | 3 | |
| Gg-331 | Practicals in Climatology | 3 | | |
| Gg-332 | Practicals in Economic Geography | 3 | | |
| Gg-333 | Practicals in Population and Settlement Geography | 3 | | |
| (Note : Field work / visit for duration should not be less than 2 days to be undertaken) | | | | |

| | | | | |
|---|--|----------|-----------|-----------|
| Gg-302 | Interpretation of Topographical Maps & Village Survey / Project work | 4 | 4 | |
| <i>ELECTIVE COURSES (Any three From the Following; but Gg-306 & Gg307 together)</i> | | | | |
| Gg-303 | Research Method in Geography | 3 | 9 | |
| Gg-304 | Social & Cultural Geography | 3 | | |
| Gg-305 | Practical in Watershed analysis | 3 | | |
| Gg-306 | Geoinformatics-III | 3 | | |
| Gg-307 | Practical in Geoinformatics | 3 | | |
| | Total courses in the semester | 8 | 25 | 25 |

| SEMISTER - IV | | | | |
|---------------|--|--------------------|-------------------------|----------------------|
| COURSE CODE | COURSE TITLE | CREDITS PER COURSE | CREDITS TO BE COMPLETED | |
| | CORE COURSES | | COURSE WISE | SEMESTER WISE |
| | Three of the following | | | |
| | <i>NOTE: Gg. 411 & 412-this group will be offered by the students who have opted Gg 208, 209, 306 and 307)</i> | | | |
| Gg-401 | Theoretical and Applied Geography | 3 | 9 | |
| Gg-402 | Principles of Remote Sensing and GIS | 3 | | |
| Gg-403 | Practicals in Remote Sensing and GIS | 3 | | |
| Gg-411 | Geostatistics | 3 | | |
| Gg-412 | Practicals in Geostatistics | 3 | | |
| | One of the following | | | |
| Gg-420 | Regional Planning and Development | 3 | 3 | |
| Gg-421 | Geography of Water Resources | 3 | | |
| Gg-422 | Biogeography | 3 | | |
| Gg-423 | Oceanography | 3 | | |
| Gg-424 | Natural and Manmade Hazards | 3 | | |
| | One of the following | | | |
| Gg-440 | Dissertation | 4 | 4 | |
| Gg-441 | Principles of Regional Geography & Project Work | 4 | | |
| | ELECTIVE COURSES (Any three from the following) | | | |
| Gg-404 | Geography of Food Security of India | 3 | 9 | |
| Gg-405 | Geography of Health | 3 | | |
| Gg-406 | Practicals in Advanced Surveying | 3 | | |
| Gg- 407 | Regional Geography of SAARC countries | 3 | | |
| | Total courses in the semester | 8 | 25 | 25 |
| | | | Total Credit | 100 |

Structure of Syllabus

Structure of M.Sc. (Physics) Syllabus

(For Affiliated Colleges)

Revised Syllabus to be implemented from June 2014

Total Credits: 100

Semester I

| Course Number | Course Name |
|---------------|---|
| PHYUT501 | Classical Mechanics (4 Credits) |
| PHYUT502 | Electronics (4 Credits) |
| PHYUT503 | Mathematical Methods in Physics (4Credits) |
| PHYUT504 | Atoms and Molecules (4 Credits) |
| PHYUT505 | Experimental Techniques in Physics I(4 Credits) |
| PHYUP506 | Physics Lab I (5 Credits) |

Semester II

| Course Number | Course Name |
|---------------|---|
| PHYUT601 | Electrodynamics (4 Credits) |
| PHYUT602 | Solid State Physics (4 Credits) |
| PHYUT603 | Quantum Mechanics I (4 Credits) |
| PHYUT604 | Lasers (4Credits) |
| PHYUT605 | Experimental Techniques in Physics II(4Credits) |
| PHYUP606 | Physics Lab II (5 Credits) |

Semester III

| Course Number | Course Name |
|---------------|---|
| PHYUT701 | Statistical Mechanics in Physics (4 Credits) |
| PHYUT702 | Physics of Semiconductor Devices/Quantum Mechanics II (4 Credits) |
| PHYDT703 | Departmental Course I (4 Credits) |
| PHYDT704 | Departmental Course II (4 Credits) |
| PHYDP705 | Special Lab I (4 Credits) |
| PHYUP706 | Physics Lab III (5 Credits) |

Semester IV

| Course Number | Course Name |
|---------------|-------------------------------------|
| PHYUT801 | Nuclear Physics (4 Credits) |
| PHYUT802 | Material Science (4 Credits) |
| PHYDT803 | Departmental Course III (4 Credits) |
| PHYDT804 | Departmental Course IV (4 Credits) |
| PHYDP805 | Special Lab II (4 Credits) |
| PHYUP806 | Physics Lab IV: Project (5 Credits) |

List of Departmental Courses

| | |
|--|---|
| Departmental Course I Semester III PHYDT703/PHYDT704 (4 credits) | Departmental Course II Semester IV PHYDT803/PHYDT804 (4credits) |
| Medical physics I | Medical physics II |
| Acoustics I | Acoustics II |
| Energy Studies I | Energy Studies II |
| Physics of Thin Films | Physics of Nano materials |
| Astronomy and Astrophysics I | Astronomy and Astrophysics II |
| Electronic Instrumentation-I | Electronic Instrumentation-II |
| Communication Electronics | Microwave Physics and Applications |
| Biomedical Instrumentation I | Biomedical Instrumentation II |
| Atmospheric Physics I | Atmospheric Physics II |
| Nuclear Techniques I | Nuclear Techniques II |
| Microcontroller Based Instrumentation System – I | Microcontroller Based Instrumentation System – II |

The college can start any two of the departmental courses in 3rd semester and corresponding two courses shown against the 3rd semester course in 4th semester.

University of Pune
Revised Syllabus
M. Sc.-II Analytical Chemistry
Applicable from 2014-15

| Semester-III | | |
|--|---|--|
| Paper | Sections | Name of Paper |
| CHA-390 | I & II | Electro analytical and Radio analytical methods of analysis |
| CHA-391 | I & II | Pharmaceutical Analysis |
| CHA-392 | I & II | Advanced analytical Techniques |
| CHA-380 | Any Two Sections from following | |
| | I | Analytical Method development & validation |
| | II | Geochemical and alloy analysis |
| | III | Laboratory Automation and Sensor Based Techniques |
| Semester-IV | | |
| Paper | Sections | Name of Paper |
| CHA-481 | I & II | Analytical Toxicology and Food Analysis |
| CHA-490 | I & II | Analytical spectroscopy |
| CHA-491 | I & II | Analytical methods for analysis of fertilizers, detergents, water and Polymer, Paint and pigment |
| CHA-492 | Method of Analysis and Applications : Any Two Sections from following | |
| | I | Pollution Monitoring and Control |
| | II | Analysis of body fluid |
| | III | Carbon Nanostructures and Applications of Nanotechnology |
| <i>Practical Courses</i> | | |
| <i>Minimum 20% students must have complete Project work in leave of Practical course III</i> | | |
| CHA-387 | <i>Analytical chemistry Practical Course -I</i> | |
| CHA-487 | <i>Analytical Chemistry Practical Course-II</i> | |
| CHA-488 | <i>Analytical Chemistry Practical Course-III</i> | |

Industrial Tour and Report writing is compulsory

University of Pune
Revised Syllabus 2014
M.Sc. II: Organic Chemistry

Semester III

| | | |
|---------|---|------------------------|
| CHO-350 | Organic Reaction Mechanism | 48 Lectures, 4 Credits |
| CHO-351 | Spectroscopic Methods in Structure Determination | 48 Lectures, 4 Credits |
| CHO-352 | Organic Stereochemistry | 48 Lectures, 4 Credits |
| CHO-353 | Pericyclic Reactions, Photochemistry and Heterocyclic Chemistry | 48 Lectures, 4 Credits |

Semester IV

| | | |
|---------|---|------------------------|
| CHO-450 | Natural Products | 48 Lectures, 4 Credits |
| CHO-451 | Advanced Synthetic Organic Chemistry | 48 Lectures, 4 Credits |
| CHO-452 | Carbohydrate and Chiron approach/ Chiral Drugs and Medicinal Chemistry | 48 Lectures, 4 Credits |
| CHO-453 | Designing Organic Synthesis and Asymmetric Synthesis | 48 Lectures, 4 Credits |

M.Sc. II: Organic Chemistry Practical

| | | |
|---------|---|-----------|
| CHO-347 | Single Stage Preparations | 6 Credits |
| CHO-447 | Two Stage Preparations | 6 Credits |
| CHO-448 | Project/Industrial training/ Green Chemistry and Chemical Biology Experiments | 6 Credits |

M.Sc. Botany Syllabus Credit System Course structure

M.Sc. I Botany: (Implemented from 2013-2014)

Semester I:

| | |
|---|-------|
| BO 1.1 Cryptogamic Botany I- Bryophytes and Pteridophytes | (60L) |
| BO 1.2 Biochemistry and Plant Physiology | (60L) |
| BO 1.3 Genetics and Plant Breeding | (60L) |
| BO 1.4 Botanical Techniques | (60L) |
| BO 1.5 Practical based on BO 1.1 and BO 1.4 | |
| BO 1.6 Practical based on BO 1.2 and BO 1.3 | |

Semester II:

| | |
|--|-------|
| BO 2.1 Cryptogamic Botany II- Algae and Fungi | (60L) |
| BO 2.2 Cell Biology and Evolution | (60L) |
| BO 2.3 Molecular Biology and Genetic Engineering | (60L) |
| BO 2.4 Plant Ecology and Phytogeography | (60L) |
| BO 2.5 Practical based on BO 2.1 and BO 2.2 | |
| BO 2.6 Practical based on BO 2.3 and BO 2.4 | |

M.Sc. II Botany (Implemented from 2014-2015)

Semester III:

| | |
|--|-------|
| BO. 3.1. Spermatophytic Botany | (60L) |
| BO. 3.2. Developmental and Economic Botany | (60L) |
| BO. 3.3. Industrial Botany I | (60L) |
| BO. 3.4. Special Botany Paper (from BO 3.41 to BO. 3.50) | (60L) |

| | |
|--|--|
| BO 3.41. Advanced Mycology | |
| BO 3.42. Advanced Angiosperms | |
| BO 3.43. Advanced Physiology | |
| BO 3.44. Advanced Genetics and Molecular Biology | |
| BO 3.45. Advanced Biotechnology | |
| BO 3.46. Advanced Medicinal Botany | |
| BO 3.47. Advanced Environmental Botany | |
| BO 3.48. Advanced Seed Technology | |
| BO 3.49. Advanced Horticulture and Floriculture | |
| BO 3.50. Advanced Biodiversity | |

| | |
|--|--|
| BO 3.5. Practicals based on BO 3.1., BO. 3.2. and BO.3.3. | |
| BO. 3.6. Practicals based on Special Paper BO. 3.41 to BO 3.50 | |

Semester IV:

| | |
|------------------------------------|-------|
| BO 4.1. Computational Botany | (60L) |
| BO 4.2. Plant Organism Interaction | (60L) |

| | |
|--|-------|
| BO 4.3. Industrial Botany II | (60L) |
| BO 4.4. Plant Pathology | |
| BO 4.5. Practicals Practical based on BO 4.1, BO 4.2., BO 4.3. and BO 4.4. | |
| BO 4.6. Research Methodology and Summer Training | (60L) |

M.Sc. Botany Credit System Course Structure and Examination Pattern

1. Each theory course of four credits of 60 Lectures
2. Examination pattern- internal examination 50 Marks and end semester University examination of 50 Marks
3. In each semester four theory and two practical courses
4. M.Sc. Botany syllabus is of 100 credits syllabus
5. Evaluation pattern under credit system will be as below

- A. Continuous Assessment (CA)- 50 Marks**
 Written test (at least two) of 15 Marks each
 Assignment of maximum 5 marks
 Seminar/ Group Discussion/ Extension work/Report writing/ Study tour 5 marks
 An open book test 10 Marks
- B. End Semester Examination (ESE) 50 Marks**
 The setting of question paper for ESE will be as below
 Total questions eight from which five have to solve and each question carries 10 marks.
 Any six questions with marks for sub questions may be – 4+3+3 or 5+3+2 or 4+4+2.
 Any two questions with marks for sub questions 5+5
- C. Practical Examination**
- I. **Internal marks 50** – outline of the distribution of the mark for various aspects for internal marks is as below-
Journal – 10 Marks
Viva voce– at the time of the practical 20 marks
Group discussion of 5-6 students for testing understanding level of students 10 Marks
Attendance – 5 Marks
Additional practical work of interdisciplinary nature – 5marks
 - II. **End Semester Practical Examination (ESE)- 50 Marks**
 Certified journal would be compulsory to appear ESE practical examination
- D. Research Methodology and Summer Training:** It will start in third semester it includes project report, review of literature and summer training report with certificate of completion. The students have to prepare techno-commercial case

study report of any four units mentioned in syllabus. It should be presented at the end of fourth semester practical examination.

E. Passing System for Each Course

A student has to obtain 40% marks in the combined examination of CA and ESE with minimum passing of 30% in both these separately. To pass the degree programme, students have to obtain minimum aggregate of 40% marks in each course.

UNIVERSITY OF PUNE, PUNE.
BOARD OF STUDIES IN MATHEMATICS
Syllabus for M.A. / M.Sc. Mathematics,
Semester 3 and 4 for affiliated colleges
(with effect from 2014-15)

Introduction:

University of Pune has decided to change the syllabi of various faculties from June, 2013. Taking into consideration the rapid changes in science and technology and new approaches in different areas of mathematics and related subjects, Board of studies in Mathematics after a thorough discussion with the teachers of Mathematics from different colleges affiliated to University of Pune has prepared the syllabus of M.Sc./M. A. Mathematics course. The model curriculum as developed by U. G. C. is used as a guideline for the present syllabus.

Aims:

- i) Strengthening the understanding of the students and substantiating the conceptual framework of the Graduates in Mathematics for furthering their potential and capabilities in the subject.
- ii) Introducing advanced theories in the subject in an orderly manner with a clearly defined path of interdependence.
- iii) Introducing the specializations in different areas of Mathematics and at the same time emphasizing the underlying interconnections in different branches of Mathematics.
- iv) Generating more interest in the subject and motivating students for self learning beyond the realm of syllabi and examinations.
- v) Inculcating the spirit of inquiry among the students and preparing them to take up the research in Mathematics.
- vi) Exhibiting the wide range of applications of Mathematics and preparing students to apply their knowledge in diverse areas such as Physics, Astronomy, Biology, Social Sciences, etc.

Objectives:

- (i) A student should be able to understand the proof techniques in Mathematics and importance of theorems for sorting out typical examples.
- (ii) A student should acquire sufficient technical competence to solve the problems of varying difficulty levels and high notational complexity.
- (iii) A student should be able to make observations, experimentation and pattern recognition which would stimulate the research potential
- (iv) A student should acquire the communication skill to present technical Mathematics so as to take up a career in Teaching Mathematics at various levels including schools, colleges, universities, etc.

Eligibility: As per rules and regulations of the University of Pune.

Structure of the course:

1. There are five compulsory courses in semester I and five compulsory courses in semester II.
2. There are three compulsory courses and two departmental courses in semester III and three compulsory courses and two departmental courses in semester IV.
3. The list of compulsory as well as departmental courses is given below.
4. The evaluation pattern will be according to the credit system to be introduced at post-graduate centres in the affiliated colleges.

Medium of Instruction: English

Examination:

- A) Pattern of examination: Semester
 - B) Standard of passing : As per credit system.
 - C) Pattern of question papers: As per credit system
 - D) External Students: Allowed.
 - E) Verification/Revaluation: Allowed for all courses
-

Semester III

Compulsory courses:

- MT 701 Combinatorics
- MT 702 Field Theory
- MT 703 Functional Analysis

Departmental courses: (Any Two)

- MT 704 Graph Theory
- MT 705 Classical Mechanics
- MT 706 Topics in Algebra
- MT 707 Topics in Analysis
- MT 708 Topics in Geometry
- MT 709 Discrete Mathematics
- MT 710 Applied Mathematics
- MT 711 C language
- MT 712 Mathematical Modelling

- The syllabi of first two departmental courses is provided by the university.

Semester IV

Compulsory courses:

- MT 801 Number theory
- MT802 Differential Geometry
- MT 803 Fourier Analysis and boundary value problems

Departmental courses: (Any Two)

- MT 804 Lattice Theory

MT805 Operations Research
MT 806 Topics in Algebra
MT807 Topics in Analysis
MT 808 Topics in Geometry
MT 809 Discrete Mathematics
MT 810 Applied Mathematics
MT 811 C++ language
MT 812: Mathematics Project

- The syllabi of first two departmental courses is provided by the University.

The syllabi for courses which have been approved as Departmental courses for the M.A./M.Sc. course of the Department of Mathematics, University of Pune, will also be approved as Departmental courses for the affiliated Colleges of the University of Pune.

Detailed Syllabus

MT 701 Combinatorics

1. Counting principles, arrangements and selections, arrangements and selection with repetition, distributions, binomial identities
2. Generating function : Generating function models, calculating coefficients of generating functions, partitions, exponential generating functions, a summation method.
3. Recurrence Relations : Recurrence relation models, divide and conquer relations, solution of linear and inhomogeneous recurrence relation, solution with generating functions.
4. Inclusion-exclusion: Counting with Venn diagrams, inclusion - exclusion formula, restricted positions and Rook polynomials.

Prescribed Book :

1. Alan Tucker, Applied Combinatorics (fourth edition), John Wiley & sons, New York (1995)
sections 5.1-5.6, 6.1-6.5, 7.1-7.5, 8.1-8.3.

Reference books :

- 1.V. Krishnamurthy, Combinatorial, Theory and Applications, East West Press, New Delhi (1989) Scientific, (1996)
 - 2.K.D. Joshi : Foundations of discrete mathematics, Wiley
 3. Marshall Hall : Combinatorial theory ,Wiley.
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