

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY

CIRCULAR NO. SU/Service Course/30/2016

It is hereby inform to all concerned that, the Choice Based Credit and Grading System have been implemented to the affiliated colleges from the academic year 2015-16 at Post Graduate level for the all Faculties. According to the guidelines of C.B.C. & G.S. it is essential to teach the Service Course to students. The authorities of the university has decided that the service courses run at University Campus and Sub-Center, Osmanabad be apply to the college level. The concerns are inform that to instruct to the students to Choice any one Service Course as per their willingness. Where only one post graduate course they can take the service course of the concerned subject. The syllabi of the service courses are uploaded with the circular on the University website www.bamu.ac.in


The service courses be teach to the students with the **syllabus of IVth-Semester for this year only and hereafter** to tech with the syllabus of III-Semester as per their relevant courses.

This is effective from the academic year 2016-17.

All concerned are requested to note the contents of this circular and bring notice to the students, teachers and staff for their information and necessary action.

University Campus,
Aurangabad-431 004.
REF.NO. SU/SERVICE COURSE /
SYLLA./2016/5117-516
Date:- 02-09-2016.

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Director,
Board of College and
University Development.

Copy forwarded with compliments to:-

**1] The Principals of concerned Colleges,
Dr. Babasaheb Ambedkar Marathwada University.**

Copy to :-

- 1] The Controller of Examinations,
 - 6] The Section Officer, [M.A. Unit],
 - 7] The Section Officer, [M.Sc. Unit],
 - 8] The Section Officer, [M.Com. Unit],
 - 9] The Section Officer, [Management Unit],
 - 10] The Section Officer, [Professional Unit],
 - 11] The Section Officer, [Engineering Unit],
 - 3] The Programmer [Computer Unit-1] Examinations,
 - 4] The Programmer [Computer Unit-2] Examinations,
 - 5] The Public Relation Officer,
 - 6] The Co-ordinator, E-Suvidha Kendra, [Rajarshi Shahu Maharaj Pariksha Bhavan,
 - 7] The Record Keeper.
- Dr. Babasaheb Ambedkar Marathwada University,

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**DR. BABASAHEB AMBEDKAR
MARATHWADA UNIVERSITY,
AURANGABAD.**



M.Sc. Electronics

Service Course

[Academic Year 2016-17 & onwards]

**Dept. of Electronics
(M. Sc. Electronics)**

**Syllabus for Service Course
Paper: - Mobile Communication**

Unit –I

1. Wireless Telecommunication systems and networks

The history and evolution of wireless radio systems, development of modern telecommunication infrastructure, overview of existing network infrastructure, overview of OSI model, wireless network applications

Evolution and development of cellular telephone system

Generations of wireless cellular networks, 1G cellular system, 2G cellular system, 3G cellular system, 3G cellular system, 4G cellular system.

Unit –II

2. Common Cellular System Components

Common cellular system components, hardware and software views, 3G cellular system components, cellular component identification, cell establishment

Unit –III

3. Wireless Network architecture and operations: The cellular concept, cell fundamentals, capacity expansion techniques, cellular backhaul networks, mobile management, radio resources and power management, wireless network security

Unit –IV

4. GSM, TDMA and CDMA Technology

Introduction to GSM and TDMA, GSM network and system architecture, GSM channel concept, GSM identities, GSM system operations, GSM infrastructure communication; TDMA systems, Introduction to CDMA, CDMA network and system architecture, CDMA channel concept, CDMA system operations, 3G CDMA

Unit –V

5. Cellular wireless data networks

Introduction to mobile wireless data networks, CDPD, GPRS and EDGE data networks, CDMA data networks, Evolution to GSM to 3G, Evolution of CDMA to 3G. SMS,EMS,MMS and MIM services.

Text/References Books -

1. Introduction to Wireless Telecommunication Systems and Networks – Gary J. Mullett, Delmar Cengage learning, India Edition 2007
2. Wireless and Mobile Communication – Sanjeev Kumar, New Age Int.2008