# UNIVERSITY OF MUMBA! No.UG/ 366 of 2004

### CIRCULAR:-

Attention of the Director, Mumbai University Institute of Chemical Technology and the Principals of the affiliated colleges in Engineering is hereby invited to the Ordinances, Regulations and Syllabus relating to the Master of Chemical Engineering and Master of Technology degree course vide pamphlet No.189 and they are hereby informed that the recommendation made by the Board of Studies in Chemical Technology at its meeting held on 9th July, 2004 has been accepted by the Academic Council at its meeting held on 7th August, 2004 vide item No.4.7 and that in accordance therewith, a new elective subject "Industrial Research Management" is included at the Master of Chemical Engineering and Master of Technology level as per Appendix.

Further that the aforesaid new elective subject has been brought into force from the academic year 2004-2005.

Mumbai 400 032, 27th August, 2004.

AC/4.7/7.8.04

To,

The Director, Mumbai University Institute of Chemical Technology and the Principals of the affiliated colleges in Engineering

No.UG/ 366-A of 2004

MUMBAI-400 032 27th August 2004.

Copy forwarded with Compliments for information to:-

1) The Dean, Faculty of Technology.

3) The Chairman. Board of Studies in Chemical Technology

for I'c REGISTRAR

Copy to:-

The Director, Board of College and University Development, the Controller of Examinations, the Deputy Registrar (Eligibility and Migration Section), the Director of Students Welfare, the Personal Assistants to the Vice-Chancellor, the Pro-Vice-Chancellor, the Registrar and the Assistant Registrar, Administrative sub-center, Ratnagiri for information

The Controller of Examinations (10 copies), the Finance and Accounts Officer (2 copies), Record Section (5 copies), Publications Section (5 copies), the Deputy Registrar, Enrolment, Eligibility and Migration Section (3 copies), the Deputy Registrar, Statistical Unit (2 copies), the Deputy Registrar (Accounts Section), Vidyanagari (2 copies), the Deputy Registrar, Affiliation Section (2 copies), the Director University Computer Center (IDE Building), Vidyanagari, (2 copies) the Assistant Registrar, Academic Authorities Unit (2 copies) and the Assistant Registrar, Executive Authorities Unit (2 copies). They are requested to treat this as action taken report on the concerned resolution adopted by the Academic Council/ Management Council referred to in the above Circular and that no separate Action Taken Report will be sent in this connection. The Assistant Registrar Constituent Colleges Unit (2 copies), BUCT(1 copy), the Deputy Account, Unit V(1 copy), the In-charge Director, Centralize Computing Facility (1 copy), the Receptionist (1 copy), the Telephone Operator (1 copy), the Secretary MUASA (1 copy), the Superintendent, Post-Graduate Section (2 copies). The Deputy Registrar (Special Cell) (1 copy)

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# **APPENDIX**

Course on Industrial Research Management

An elective course is proposed on Industrial Research Management at the M.Chem. Engg. And M.Tech. level during the second semester at MUICT. The course would be optional elective for those who are interested in pursuing Research career.

We believe that such course would be a useful addition to the course work being offered at present. It would prepare the student with the basics for taking responsibility in Industrial Research in future.

Attached please find broad contents of the course. It will be offered in three modules of 10 lectures each: the first module on Corporate perspective, and the second on Process Development and the third on some practical aspects of R & D Management and business game on the topic.

We believe the course would be novel and a first at least in India.

Broad contents of each module is attached.

# Elective subject: Industrial Research Management

For Second Semester M.Chem. Engg. and M.Tech. students.

15 Weeks/2 hours per week.

#### Contents:

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Module I (10 Lecture hours)

R & D and its role in Corporate Vision and strategy

R & D in Chemical industry, Global Trends in R & D Management.

Management of Change, Role of R & D in Mergers and Acquisitions

Module II (10 Lecture hours)

Basic Statistics for Production and Research.

Experimental Design, Evolutionary Operations

Process Development and Scale-up/down

Process Improvements

Product development from laboratory to production and market

### Module III: (10 Lecture hours)

Project Selection. Technology Market Matrix. Measurement of Results

Product Innovation and Design

### **Innovation Funnel**

R & D Effectiveness. Cost Benefit Analysis

Typical examples and Business Games

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SSG/N-Boards.meet./JD.

