



## DCOP

### Subjectwise Course Outcome - [Pharmaceutical Quality Assurance - 2023-24]

First Semester	
<b>Pharmaceutical Quality Assurance-I [ Practical   Regular ]</b>	
<b>CO ID.</b>	<b>Course Outcome</b>
Course outcome not yet added by the respective faculty.( Dr. Kranti Satpute)	
<b>MPQA Modern Pharmaceutical Analytical Techniques [ Theory   Regular ]</b>	
<b>CO ID.</b>	<b>Course Outcome</b>
MQA101T.4	CO.4.To understand the principles involved in various chromatography techniques such as paper,TLC,ion exchange,HPLC,and HPTLC etc
MQA101T.5	CO.5.To know the basic construction and working of chromatographic techniques
MQA101T.1	CO.1.Remember and understand the electromagnetic spectrum, spectroscopy and its importance in Pharmaceutical analysis.
MQA101T.2	CO.2.Describe the instrumentation of various spectro-analytical techniques.
MQA101T.3	CO.3 Explain the applications of different spectro-analytical techniques for the qualitative and quantitative analysis.
<b>MQA102T Quality Management System [ Theory   Regular ]</b>	
<b>CO ID.</b>	<b>Course Outcome</b>
CO1	By learning this course students can learn about Quality Management system in the organisation
CO2	By learning this course the students get the awareness about role of Quality Assurance , Quality Control and GMP in the organisation.
CO3	By learning this course students know about Deviations procedures, Change control Procedures and Corrective actions procedures and preventive actions procedures.
CO4	It also aids in understanding the quality evaluation in the pharmaceutical industries.
CO5	At completion of this course it is expected that students will be able to understand- The importance of quality, ISO management systems, Tools for quality improvement, Analysis of issues in quality.
CO6	At completion of this course it is expected that students will be able to understand-Quality evaluation of pharmaceuticals, Stability testing of drug and drug substances and Statistical approaches for quality .
<b>MQA103T Quality Control &amp; Quality Assurance [ Theory   Regular ]</b>	
<b>CO ID.</b>	<b>Course Outcome</b>
CO1	Students should understand the cGMP principles in pharmaceutical industry, GLP, ICH guidelines and CPCSCA guidelines.
CO2	Students should learn about Schedule M, Pharmaceutical inspection convention (PIC), EMEA, WHO and Good warehousing practices.
CO3	Students should acquire knowledge of Analysis of raw materials, finished products, packaging materials, in process quality control (IPQC).
CO4	Students should learn basic principles, maintenance, retention and retrieval of documentation.
CO5	Students should understand manufacturing processes and control measures in pharmaceutical industry.
<b>MQA104T Product Development &amp; Technology Transfer [ Theory   Regular ]</b>	
<b>CO ID.</b>	<b>Course Outcome</b>
MQA104T.1	CO1. To understand product development process in pharmaceutical industry.
MQA104T.2	CO2. To explain and perform pre formulation studies of compounds.
MQA104T.3	CO3.To describe pilot plant for liquid semi solid and solid dosage form.

MQAI04T.4

CO4. To understand technology transfer and pharmaceutical packaging of different dosage form.



## DCOP

### Subjectwise Course Outcome - [Pharmaceutical Quality Assurance - 2023-24]

Second Semester	
<b>Pharmaceutical Quality Assurance-II [ Practical   Regular ]</b>	
CO ID.	Course Outcome
Course outcome not yet added by the respective faculty.( Dr. Kranti Satpute)	
<b>MQA201T Hazards &amp; Safety Management [ Theory   Regular ]</b>	
CO ID.	Course Outcome
CO1	Students shall be able to understand about environmental problems and impart basic knowledge about environment and its allied problems.
CO2	Students must develop an attitude of concern for the industry environment and must ensure safety standards in pharmaceutical industry.
CO3	Students must get comprehensive knowledge on the safety management.
CO4	Students must empower an idea to clear mechanism and management in different in different kinds of hazards management system.
CO5	students must learn the method of Hazard assessment, procedure, methodology to provide safe industrial atmosphere.
<b>MQA202T Pharmaceutical Validation [ Theory   Regular ]</b>	
CO ID.	Course Outcome
CO1	To understand the concepts of calibration, qualification and validation
CO2	To know qualification of various equipments and instruments
CO 3	To understand Process validation of different dosage forms
CO4	To study Validation process of cleaning & analytical method used in pharmaceutical industry
CO5	To understand general principles of Intellectual property rights
<b>MQA203T Audit &amp; Regulatory Compliance [ Theory   Regular ]</b>	
CO ID.	Course Outcome
CO1	To understand the importance of auditing in pharmaceuticals
CO2	To understand the methodology of auditing for pharmaceutical industry
CO3	To prepare the check list for auditing
CO4	To carry out the audit process
<b>MQA204T Pharmaceutical Manufacturing Technology [ Theory   Regular ]</b>	
CO ID.	Course Outcome
MQA204T.1	CO1. Acquire knowledge about common practice in pharmaceutical industry development, Plant layout ,production planning and legal regulatory aspect require to setup a pharmaceutical industry.
MQA204T.2	CO2. Know about the important of principle and practices of aseptic technology, packaging technology and manufacturing technology.
MQA204T.3	CO3. To apply knowledge gain to identify problem and measures to assure quality and stability of pharmaceuticals.
MQA204T.4	CO4. To apply and implement modern tool in pharmaceutical manufacturing remain up to date about FDA initiatives on PAT and QbD.