

## V CHE 485 Integrated Management Systems

### Course Outlines

- **Title:** Integrated Management Systems
- **Code Number:** CHE485
- **Semester:** 8<sup>th</sup>
- **Credit hours:** 2
- **Pre-requisites course requirements/ skills:** N.A
- **Learning Outcomes:**

Upon successful completion of the course, the students will be able to:

1. Explain the principles and components of integrated management systems and their relevance to organizational performance.
2. Understand the effectiveness of various management systems in achieving compliance with industry standards.
3. Develop strategies for integrating quality, environmental, and safety management practices within an organization.

- **Contents**

#### **Unit I: Introduction to Integrated Management Systems (IMS)**

- 1.1 Overview and Importance of IMS
- 1.2 Key Components of IMS
- 1.3 Policies and Strategies of IMS

#### **Unit II: Quality Management Systems**

- 2.1 Principles of Total Quality Management
- 2.2 ISO 9001 Standards
- 2.3 Quality Control and Assurance Techniques
- 2.5 Corrective and Preventive Actions (CAPA)
- 2.5 Good Management Practices in Quality

#### **Unit III: Environmental and OH&S Management Systems**

- 3.1 Overview of Environmental Management
- 3.2 ISO 15001 Standards/ ISO 55001 Standards
- 3.3 Environmental Impact and Risk Assessment

3.5 Good Environmental Management Practices

**Unit IV: Continuous Improvement and Sustainability**

4.1 Principles of Continuous Improvement

4.2 Tools for Process Improvement (e.g., Six Sigma, PDCA)

4.3 Sustainability in Integrated Management Systems

4.5 Implementing of Corrective Action Preventive Action (CAPA)

- **Teaching-learning Strategies**

The teaching and learning strategy has been designed on the understanding of concepts and the ability to critically analyze and apply the learned content through lectures, discussion, activities, case studies using computer, multi-media and writing board instructional aids.

Lectures: 2 hours per week

- **Assignments- Types and Number with calendar**

A minimum of two assignments to be submitted before the written exam of final term

- **Assessment and Examinations**

Sr. No.	Elements	Weightage	Details
1.	Midterm Assessment	35%	Written examination at the mid-point of the semester.
2.	Formative Assessment	25%	It includes: classroom participation, attendance and assignments.
3.	Final Assessment	50%	Written examination at the end of semester.

- **Textbooks and reference readings**

1. Marek Bugdol , Piotr Jedynak, Integrated Management Systems, (2015), Springer.
2. Cochran, C. (2015). ISO 9001:2015 in plain English. Paton Professional.
3. Buzacott, J. A. (2002). Quality management for the technology sector. Butterworth-Heinemann.
4. Pojasek, R. B. (2006). Integrated management systems:A practical approach. Environmental Quality Management, 16(2), 21-32.