UPES

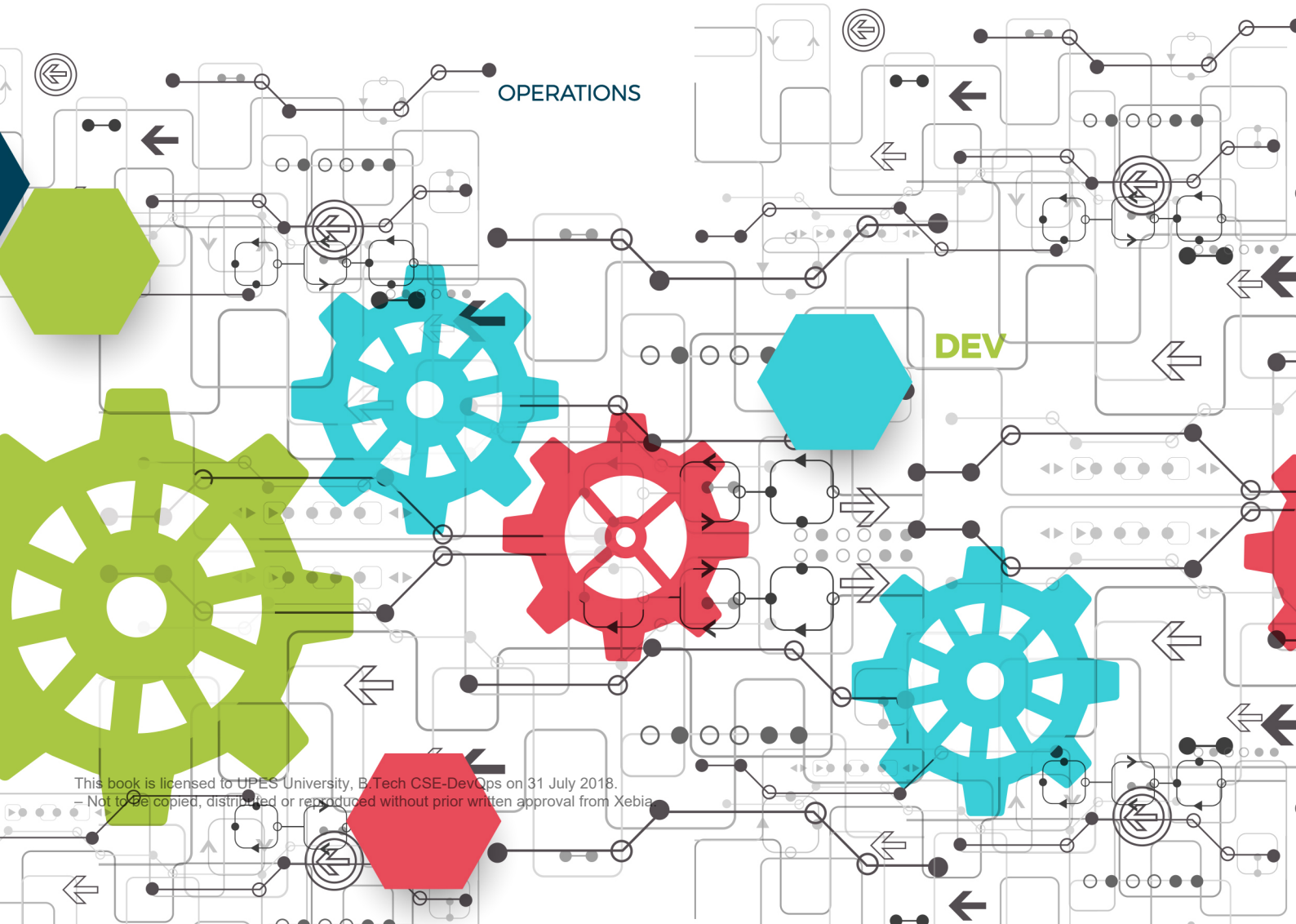
Xebia

**B.Tech** Computer Science and Engineering in DevOps

# DEVOPS OVERVIEW

## Semester **01** | **Student Handbook**

Release 1.0.0



# Copyright & Disclaimer

## B. TECH CSE with Specialization in DevOps

**Version 1.0.0**

# Acknowledgements

We would like to sincerely thank the experts who have contributed to and shaped B. TECH CSE with Specialization in DevOps. Version 1.0.0

**SME**

**Rajagopalan Varadan**
A tech enthusiast who loves learning and working with cutting-edge technologies like DevOps, Big Data, Data science, Machine Learning, AWS & Open stack

**Course Reviewers.**

**Aditya Kalia** | Xebia
**Maneet Kaur** | Xebia
**Sandeep Singh Rawat** | Xebia
**Abhishek Srivastava** | Xebia
**Rohit Sharma** | Xebia

**Review Board Members.**

**Anand Sahay** | Xebia

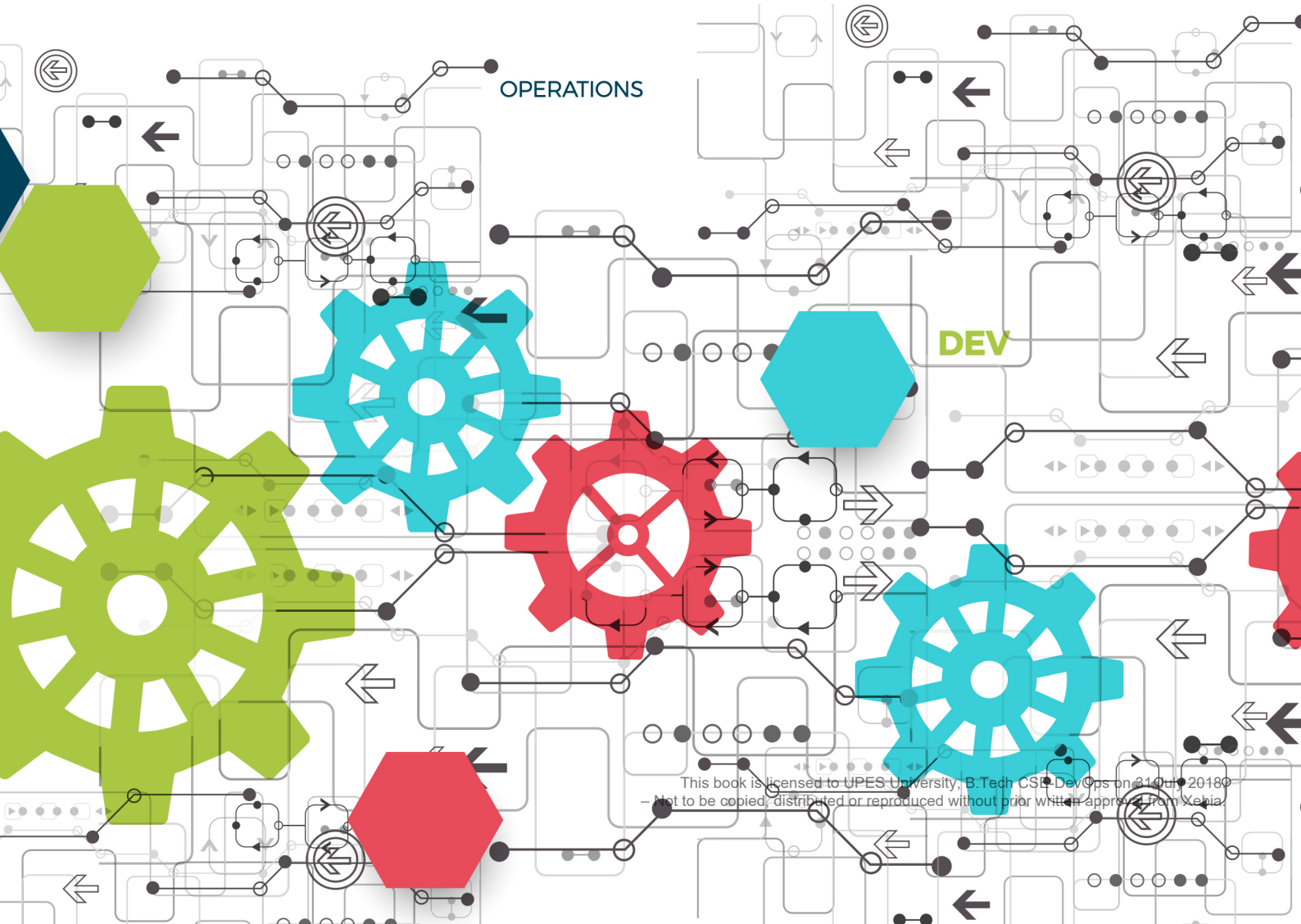
Xebia Group consists of seven specialized, interlinked companies: Xebia, Xebia Academy, XebiaLabs, StackState, GoDataDriven, Xpirit and Binx.io. With offices in Amsterdam and Hilversum (Netherlands), Paris, Delhi, Bangalore and Boston, we employ over 700 people worldwide. Our solutions address digital strategy; agile transformations; DevOps and continuous delivery; big data and data science; cloud infrastructures; agile software development; quality and test automation; and agile software security.

ODW is dedicated to provide innovative and creative solutions that contribute in growth of emerging technologies. As a learning experience provider, ODW strengths include providing unique, up to date content by combining industry best practices with leading edge technology. ODW delivers high quality solutions and services which focus on digital learning transformation.

B.Tech Computer Science and Engineering in DevOps

# DEVOPS OVERVIEW

## MODULE
## Course Introduction



# Contents

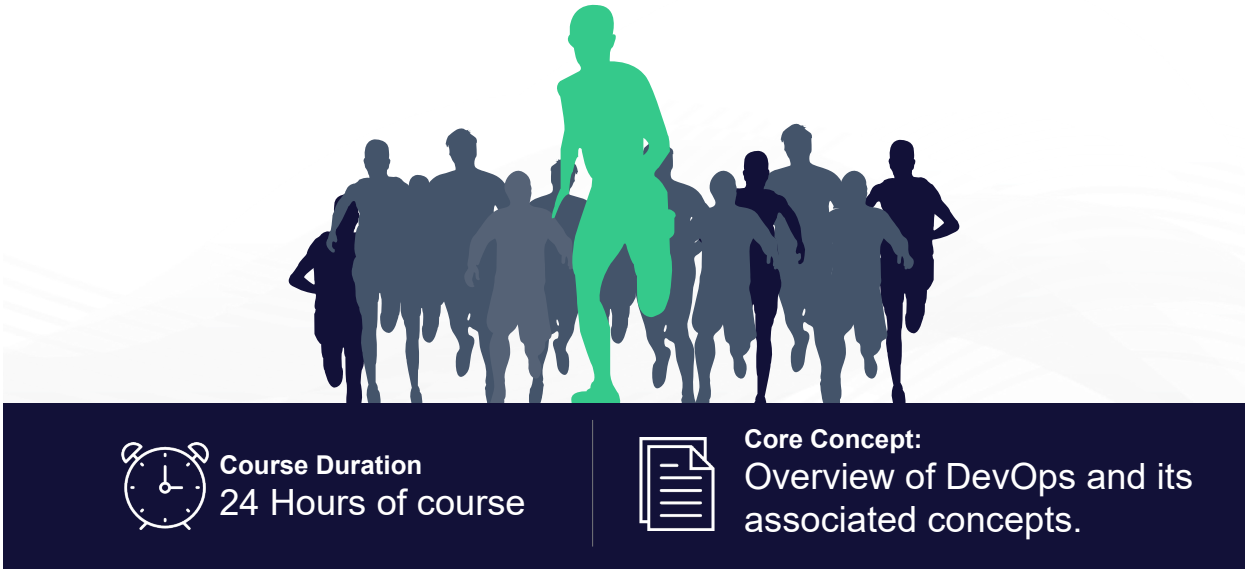
# Course Introduction

## Let’s get to know each other better


The instructor will introduce himself and take introduction about yourselves. Introduce yourself in the following format:

- Name
- Mainstream in B.Tech and background
- Familiarity with DevOps concepts and their practice
- Expectations from this course

## The Factsheet




Your facilitator will give you an introduction about the course Development Automation and what is included in it.

- This course gives learners a detailed overview of DevOps and its associated concepts. This course runs for 24 hours and has 5 modules. It first gives a detailed note on traditional methods of software development and how agile methods evolved over time to handle the deficiencies of traditional development methods.
- The course then gives an introduction to the key DevOps concepts and explains why DevOps is important for software development and delivery. You will also learn in detail how DevOps gives importance to culture, automation, measurement of growth and sharing. Thus, this course serves as a guide for anyone who want to go the DevOps way, by covering all the fundamental concepts.
- Group discussions, activities and knowledge check questions are included in each module to check your understanding and track progress.
- At the end of this module, you will get a mock exam that contains 40 multiple choice questions.

## Course Learning Objectives

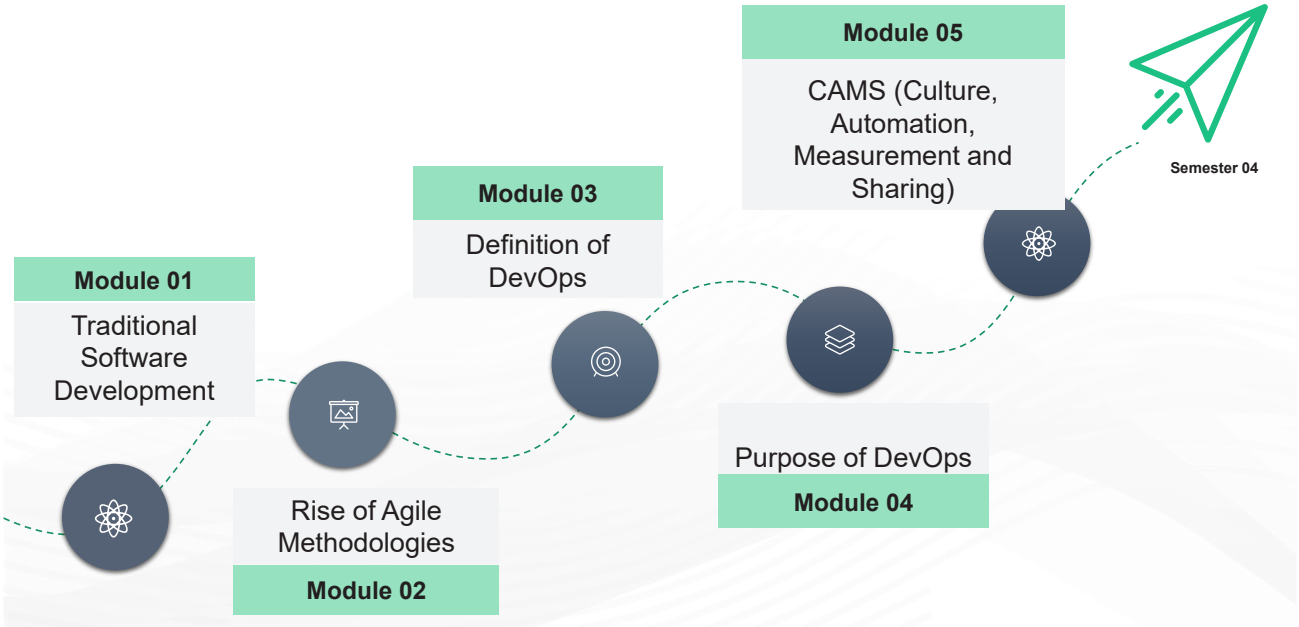
On completion of this course, participants will be able to understand:

- How software development is done using traditional methods like Waterfall.
- How agile serves as a better alternative to traditional methods and how agile methods have evolved over time.

- The definition and basic concepts of DevOps; how DevOps and agile help in developing and delivering better quality products.
- The reasons for adopting DevOps and concepts like MVP, continuous integration and continuous delivery.
- Major DevOps principles like Culture, Automation, Measurement and Sharing.

## Course Modules



# Release Notes

## B. TECH CSE with Specialization in DevOps

### Semester One -Year 01

**Release Components.**
Facilitator Guide, Facilitator Course Presentations, Student Guide and Mock exams.

**Current Release Version.**
1.0.0

**Current Release Date.**
2 July 2018

**Course Description.**
Xebia, has been recognized as a leader in DevOps by Gartner and Forrester and this course is created by Xebia to equip students with set of practices, methodologies and tools that emphasizes the collaboration and communication of both software developers and other information-technology (IT) professionals while automating the process of software delivery and infrastructure changes.



The language used in this course is US English. Our sources of reference for grammar, syntax, and mechanics are from The Chicago Manual of Style, The American Heritage Dictionary, and the Microsoft Manual of Style for Technical Publications.

| | |
|---|---|
| **Bugs reported** | Not applicable for version 1.0.0 |
| **Next planned release** | Version 2.0.0 Feb 2019 |