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University at Buffalo

Advanced Manufacturing Process Analysis

This course is part of **Digital Manufacturing & Design Technology Specialization**

Instructor: **Rahul Rai**

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3 modules
Gain insight into a topic and learn the fundamentals.

4.6 ⭐
(1,205 reviews)

Beginner level
No prior experience required

Flexible schedule
1 week at 10 hours a week
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👍 97%
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Skills you'll gain

Industrial Engineering   Data Storage   Digital Transformation   Process Engineering

Computing Platforms   Systems Engineering   Big Data   Manufacturing Operations

Data Cleansing   Analytics   Anomaly Detection   Analysis   Manufacturing Processes

Data Collection   View less skills

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- Develop job-relevant skills with hands-on projects

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There are 3 modules in this course

Variability is a fact of life in manufacturing environments, impacting product quality and yield. Through this course, students will learn why performing advanced analysis of manufacturing processes is integral for diagnosing and correcting operational flaws in order to improve yields and reduce costs.

Gain insights into the best ways to collect, prepare and analyze data, as well as computational platforms that can be leveraged to collect and process data over sustained periods of time. Become better prepared to participate as a member of an advanced analysis team and share valuable inputs on effective implementation.

Main concepts of this course will be delivered through lectures, readings, discussions and various videos.

This is the fourth course in the Digital Manufacturing & Design Technology specialization that explores the many facets of manufacturing's "Fourth Revolution," aka Industry 4.0, and features a culminating project involving creation of a roadmap to achieve a self-established DMD-related professional goal. To learn more about the Digital Manufacturing and Design Technology specialization, please watch the overview video by copying and pasting the following link into your web browser: https://youtu.be/wETK1O9c-CA

Read less

Introduction to Advanced Manufacturing Proc...

Module 1 • 2 hours to complete

Module details ∧

The purpose of this module is to introduce the concept of advanced analysis in improvement of manufacturing processes. Also, this module will help you to understand the difference between discrete manufacturing and continuous manufacturing.

What's included

▶ 5 videos   📖 3 readings   📋 3 assignments

Show info about module content ⌄

Module 2 • 5 hours to complete

Storing big data is quite different from handling traditional data. This difference is explained in this module. The purpose of this module is to introduce various steps involved in data analysis. Data Collection, Data Storage, Data Organization and Data Pre-processing concepts are explained.

What's included

▶ 4 videos   📖 4 readings   📋 5 assignments   💬 1 discussion prompt

Show info about module content ⌄

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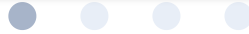U University at Buffalo

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★ **4.6** 1,205 reviews

5 stars		69.34%
4 stars		23.11%
3 stars		4.80%
2 stars		1.57%
1 star		1.15%

VC

★ 5 · Reviewed on May 8, 2020

This course of Advance Manufacturing Process Analysis is wonderful and recommendable to all. Content is very good and easy to understand. It helps in my current role as well.

MP

★ 5 · Reviewed on Feb 11, 2023

The course open my mind to a different way of thinking. And it was presented in a way where I could apply it to my own job role and see possibilities of how we could adapt to new world.

DR

⭐ **5** · Reviewed on Jul 2, 2020

Very good This course is Designed. Interesting, with good Videos and Good Langues which is very easy to Understand. I really thanks to the Course Instructor Regards.
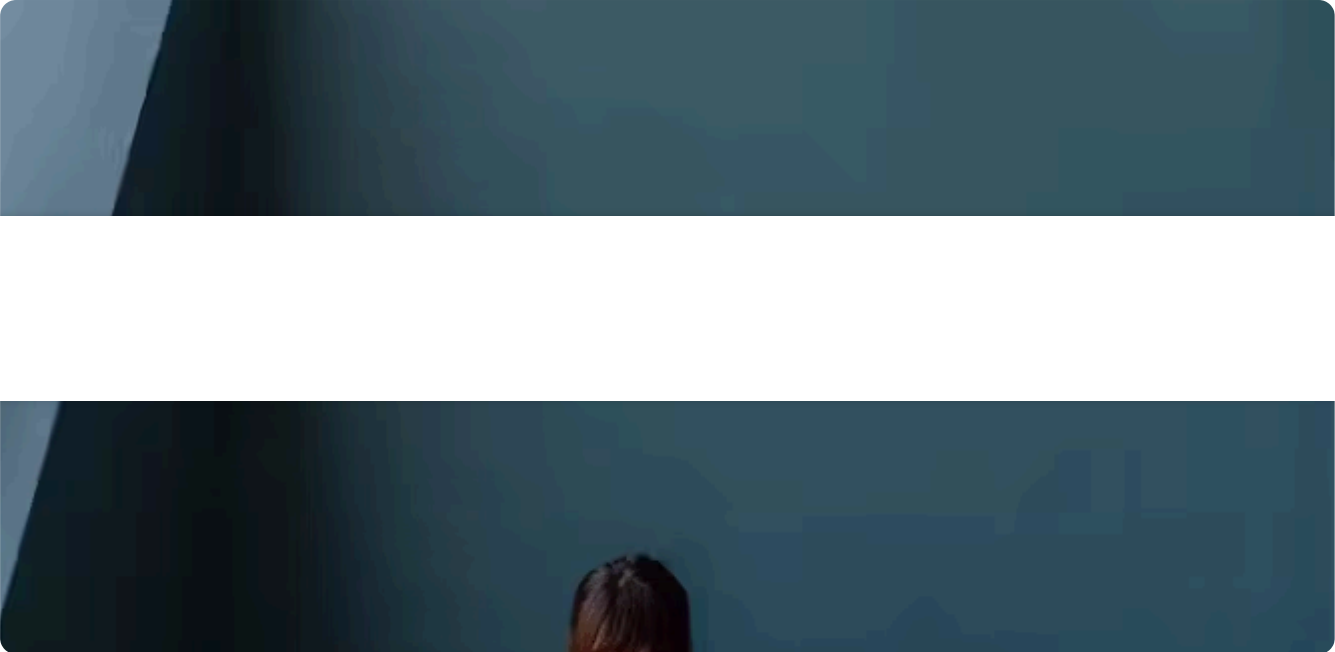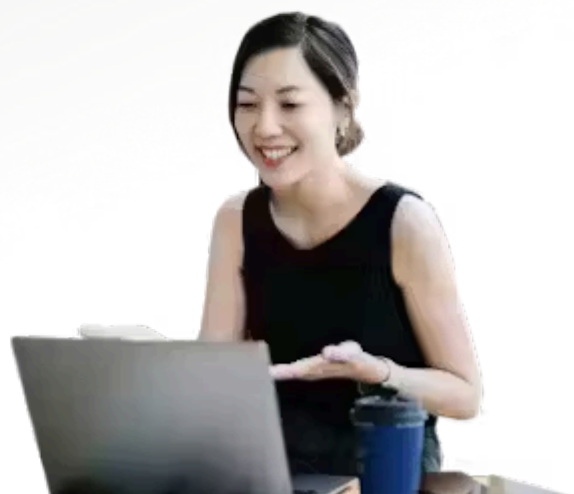
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Frequently asked questions

∧ **When will I have access to the lectures and assignments?**

instead. This option lets you see all course materials, submit required assessments, and get a final grade. This also means that you will not be able to purchase a Certificate experience.

∨ **What will I get if I subscribe to this Specialization?**

∧ **Is financial aid available?**

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