DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
ACADEMIC YEAR 2024-2025

TUTORIALS

A **tutorial**, in education, is a method of transferring knowledge and may be used as a part of a learning process. More interactive and specific than a book or a lecture, a tutorial seeks to teach by example and supply the information to complete a certain task.

Tutorials are often not optional because they give you an opportunity to delve deeper into concepts, and attendance may contribute to your participation mark

The tutorial system is a **method of university education** where the main teaching method is regular, very small group sessions. These are the core teaching sessions of a degree, and are supplemented by lectures, practical and larger group classes.

A tutorial can be taken in many forms, ranging from a set of instructions to complete a task to an interactive problem solving session (usually in academia).

In documentation and instructional design, tutorials are teaching-level documents that help the learner progress in skill and confidence. Tutorials can take the form of a screen recording (screencast), a written document (either online or downloadable), interactive tutorial, or an audio file, where a person will give step by step instructions on how to do something.

Benefits of Tutorial Classes

- Enables users to learn on demand and when they are motivated
- Tutorial can be done independent of time and geography
- User is able to stop for breaks and to repeat sections as needed
- Easier to briefly review or skip sessions if not a beginner
- Learning through written communication may be easier than learning through oral communication (e.g. English as a second language users)
- Less ongoing staff time is needed for instruction
- Experts can devise tutorial, even though they are located at a different institutions

- Tutorials are very labor-intensive to devise
- Hard to maintain especially if content in tutorial is changing rapidly
- Should tutorial include practice problems or a quiz?
- Using interactivity and examples to make tutorial more effective
- Choosing the right media: audio, video, web, email, combinations?
- Length of sessions—list total time needed, provide clear outline, and divide topics into modules
- What equipment and other types of infrastructure is needed to deliver tutorial?
- What level of user should you aim at?
- Lobby producers to create tutorials

- Use team to create tutorial

CMR college Tutorial classes:

In Our College we conducted Tutorial classes for following subjects(as per AUTONOMOUS syllabus): **2024-25**

Year & Semester	Subject	Faculty
III-year:II - sem	**Design And Analysis of Algorithms**	Mr. B Mahender
		Mr. K Ramana Reddy
II-year: II-sem	Computer Oriented Statistical Methods	Dr. Y Sunitha Rani
		Mr. A. Srihari
III-year:I - sem	Automata Compiler Design	Dr.G Sumalatha
		Mr. B. Mahender

Evaluation Process: We will give 5 questions from each unit of Tutorial subjects and give 1 mark for each answer.

CMR ENGINEERING COLLEGE

UGC AUTONOMOUS

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
ACADEMIC YEAR 2024-2025

COURSE : B.Tech III Year II sem
SUBJECT CODE & NAME :(CS601PC) DESIGN AND ANALYSIS OF ALGORITHMS

TUTORIAL ASSIGNMENT

Answer all the following questions

1. What is Divide and Conquer technique? Explain with an example[CO 1]
2. Discuss about the n-Queen problem with example.[CO 2]
3. Explain the Hamiltonian cycle with example[CO 3]
4. Briefly Explain the Greedy Algorithm method .[CO 4]
5. Difference between NP hard and NP complete problem[CO 5]

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
ACADEMIC YEAR 2024-2025

COURSE :B.Tech II Year II sem
SUBJECT CODE & NAME: (MA402BS)Computer Oriented Statistical Methods

TUTORIAL ASSIGNMENT

Answer all the following questions

1.a State and prove Baye's theorem.[CO 1]

b. A random variable X has the following probability function:[CO 1]

x	0	1	2	3	4	5	6	7
P(X)	0	k	k	2k	3k	k^2	$\mathbf{2k^2}$	$\mathbf{7k^2+k}$

Find the value of k and Evaluate P(X < 6), P(X ≥ 6), P (0 < X < 5.

2. Out of 800 families with 5 children each, how many would you expect to have i) 3 boys ii) 5 girls iii) either 2 or 3 boys d) at least one boy? Assume equal probabilities for boys and girls. [CO 2]

3. Find the Mean , Variance ,Median of normal distribution.with Examples [CO 3]

4. Find 95% confidence limits for the mean of a normality distributed population from which the Following sample was taken 15,17,0,18,16,9,7,11,13,14.[CO 4]

5. a) Computetheuniquefixedprobabilityvectortof$P=\begin{pmatrix} 0 & 0.75 & 0.25 \\ 0.5 & 0.5 & 0 \\ 0 & 1 & 0 \end{pmatrix}$

b) What matrix does P^n approach?

c)What vector does $(0.25 \quad 0.25 \quad 0.5)P^n$ approach? [CO 5]

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
ACADEMIC YEAR 2024-2025

COURSE : B.Tech III Year I sem
SUBJECT CODE & NAME:(CS502PC) Automata Compiler Design

TUTORIAL ASSIGNMENT

Answer all the following questions

1. Difference between NFA and DFA.[CO 1]
2. Explain about Regular Expression to Finite Automata.[CO 2]
3. Explain about Turing Machine .[CO 3]
4. Discuss about Phases of Compiler .[CO 4]
5. Explain about Storage Allocation Strategies [CO 5]