



Program Schedule: First Year Internship Program 2019-20

As per Notification No. ABESIT-COE/DO/2019-20/Notice/69, date: 3rd June, 2020, in initial phase, an online Internship Program of 15 days will be conducted from 11.06.2020 to 01.07. 2020 in accordance with AICTE Model Curriculum for Academic Session 2019-2020, Dr. APJ AKTU Lucknow.

Important Guidelines for Interns:

- (1) All students as interns have been divided into three groups G1, G2 and G3 (see your name & group in attached list of interns).
- (2) All interns are required to install Google Meet in their Cell phone/laptop/desktop for live interactive session.
- (3) A 3 hours session will be held per day from 10:00 am to 01:00 pm.
- (4) In first 9 days student will be given course materials as per schedule.
- (5) In remaining 6 days, students will be registered for online course on <https://www.coursera.org> to enroll for the course: Pointers, Arrays, and Recursion.

Internship Objectives

As C language which is considered the mother of all languages for any beginner in software development. Not only does it help a beginner to understand what software programming is all about, it also gives an excellent platform to build programming skills for those who eventually want to learn modern languages like C# or Java for developing advanced level applications. In view of above, the main objectives of this internship program are:

1. Understand the purpose of programming.
2. Download and understand the role of IDE in writing "C" programs.
3. Gain knowledge about how one can write Software Programs.
4. Write interactive programs to perform input and output operations.
5. Apply logic using programming techniques & decision making statements.
6. Understand the advantage of using Arrays and Pointers for handling large data.
7. Learn how to break up a big task into smaller units using functions.
8. Understand how memory can be dynamically allocated and de-allocated for pointers.
9. Persists data of the program into data files for using at later point of time.

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accredited Programs B.Tech (CSE), B.Tech (IT), B.Tech (ECE) upto 30 June 2022

ABES Institute of Technology College Code 290

Approved by AICTE, Ministry of HRD, New Delhi & Affiliated to Dr. APJ Abdul Kalam Technical University (formerly Uttar Pradesh Technical University), Lucknow
19th km. Stone, NH-24, Vijay Nagar, Ghaziabad - 201009, (U.P.), India, Phone: 8448583370, 8448583371, Fax: +91-120-2845600
website: www.abesit.in, email: info@abesit.in

10. Create and process data in files using file I/O functions.
11. Read and consume command like arguments in a program.

At the end of the course interns will be having

1. Ability to analyze Quiz questions and algorithms.
2. Ability to write and trace recursive algorithms.
3. Ability to write programs for different Data Structures and Algorithms.
4. Confidence to face programming interviews.
5. Knowledge of basic Data Structures and various sorting algorithms.

Internship Schedule

DATE	DAY	Topic	Detailed Syllabus
11.06.2020	Day-1	Variables and Data Types	'C' Tokens <ol style="list-style-type: none"> 1. Identifiers 2. Keywords 3. Data Types 4. Variables 5. Constants
12.06.2020	Day-2	Console IO Operations	In this topic we learn how to use input/output operations in C++ language. <ol style="list-style-type: none"> 1. printf function 2. scanf function 3. Unformatted Functions
15.06.2020	Day-3	Applications of control Statements in general programming	Input-output statements, statements and blocks, if and switch statements, break, continue, go to and labels, programming examples.
16.06.2020	Day-4	Applications of Multi conditional control statements in general programming	How and when to use: <ol style="list-style-type: none"> 1. Simple loop 2. Multiple loop 3. Hierarchical loop 4. Control statements within loop
17.06.2020	Day-5	Applications of Multi conditional control statements in general programming (Continue)	How and when to use: <ol style="list-style-type: none"> 5. Simple loop 6. Multiple loop 7. Hierarchical loop 8. Control statements within loop

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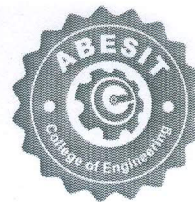
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18.06.2020	Day-6	Role of Programming in generating use cases	Algorithms, flowchart, complexity, Asymptotic Notations
19.06.2020	Day-7	Modular Programming approach	<p>Why software uses modular concepts?</p> <ol style="list-style-type: none"> 1. Terminologies of Modular programming and their method to call 2. Designing structured programs 3. Functions and their uses 4. Function overloading
22.06.2020	Day-8	Modular Programming approach (Continue)	<p>Why software uses modular concepts?</p> <ol style="list-style-type: none"> 5. Recursion vs recursive function 6. Function with pointer 7. Parameter Passing
23.06.2020	Day-9	Modular Programming approach using standard library functions	<p>Inbuilt Methods:</p> <ol style="list-style-type: none"> 1. To find length 2. To copy 3. To concatenate 4. To reverse 5. To check equality 6. To find the palindrome conditions
Source: https://www.coursera.org			
24.06.2020	Day-10	Pointers	Pointers are one of the most important and powerful aspects of the C language. Pointers are critical to understanding arrays, which let you manipulate sequences of data. They also give a programmer control and flexibility when programming, enabling solutions that are clean and efficient. Some other languages use pointers implicitly—or pointer-like constructs—so understanding their use will make you a better programmer in any language.
25.07.2020	Day-11	Arrays	Arrays are sequences of memory of the same type that are guaranteed to be one after

			another. This is an incredibly useful data format, enabling you to store many things together under one variable name. In this module, you will learn how to use arrays to solve more complex problems and lay the groundwork for more complex data types.
26.06.2020	Day-12	Arrays (Continue)	Arrays are sequences of memory of the same type that are guaranteed to be one after another. This is an incredibly useful data format, enabling you to store many things together under one variable name. In this module, you will learn how to use arrays to solve more complex problems and lay the groundwork for more complex data types.
29.06.2020	Day-13	Arrays (Continue)	Arrays are sequences of memory of the same type that are guaranteed to be one after another. This is an incredibly useful data format, enabling you to store many things together under one variable name. In this module, you will learn how to use arrays to solve more complex problems and lay the groundwork for more complex data types.
30.06.2020	Day-14	Uses of Pointers	Now that you have mastered the basics of pointers and arrays, it is time to see some important uses of them. In this module, you will learn about how to manipulate strings and multi-dimensional arrays. You will also learn about function pointers, which allow you to pass "which function to call" as the parameter of another function.



01.07.2020	Day-15	Recursion	By now you are familiar with iteration, in which repetition is expressed in terms of loops. Another programming technique to accomplish similar ideas is "recursion" in which a more complex instance of a problem is expressed in terms of solutions to simpler instances of the problem. In this module, you will learn how to read and write recursive code, giving you another powerful option for how to approach programming problems.
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Dr. S.K. Arya
Coordinator, B.Tech I-Year

Prof. (Dr.) Sapna Katiyar
Dean-Academics

Prof. (Dr.) M. K. Jha
Director

CC to the following for information and necessary action:

1. Prof. (Dr.) Sapna Katiyar, Head-ECE & Dean-Academics (e-mail)
2. All HOD/In-charges (e-mail)
3. Faculty & Technical Staff (e-mail)
4. CRC (e-mail)
5. Dr. Rakesh Singh Tomar, Head- Library (e-mail)
6. Mr. R.K. Agarwal, Finance Officer (e-mail)
7. Mr. Sachin Sharma, Head – Accounts (e-mail)
8. Registrar- ABESIT (e-mail)
9. In-charge - Exam Cell (e-mail)
10. Mr. Ravindra Yadav – Head - Services Dept. (e-mail)
11. Mr. Navneet Sharma, Coordinator– IT Support Cell (e-mail)
12. Record Room- ABESIT (DO-08) (e-mail)

CC: For information:

1. Hon'ble Chairman Sir (email)
2. Hon'ble Advisor Sir (email)

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