Overview

Campus Connect aims at evolving a model through which Infosys and engineering institutions can partner for competitiveness to enhance the pool of highly capable talent for growth requirements in Information Technology (IT) space. It is aimed at creating an effective means of backward integration into the supply chain by going into the college campuses from where the IT industry gets the people for its growth. The nationwide program focuses on preparing "industry-ready IT professionals" by aligning and enhancing the engineering student competencies with the needs of the industry.

Infosys, in this Campus Connect program, shares with academia its mature technology training methods, courseware, student project samples and other such learning resources that have been developed, practiced and perfected over the last 20 years.

The Campus Connect program has several program components weaved together to create synergy for effective, fast-paced learning; namely - conclaves, road shows, faculty enablement programs (FEP), sabbaticals, foundation programs, soft skills capsule roll-out, sponsored events and seminars.

At a Glance

1. Foundation Program (FP) is a core offering under Campus Connect.
2. Campus Connect shares the FP courseware with colleges to enable them make students industry ready.
3. FP 3.1 is the latest version of the Foundation Program offered by Infosys Campus Connect in the year 2011.
4. FP 3.1 offers a set of six courses and Integrated Project along with newly incorporated ways of assessing students' performance.
5. Integrated Project is the crucial component of FP3.1.
6. It includes a pre-test as well as two assessments, which are all online.
7. The duration of FP Rollout is 55-65 contact hours (typically classroom) with dedicated 25-32 lab hours for Integrated Project development.

Rationale for the Program

The core of the Campus Connect program is the Foundation Program Roll-out at the college premises. Foundation Program courseware represents the Intellectual Property and experience of Infosys in training thousands of entry level engineers from heterogeneous backgrounds and disciplines to deliver world-class projects to global customers. The purpose of the FP courseware is to provide a unique set of teaching aids and consolidated training material to the college faculty to help them make students industry ready.

This courseware has been used by Infosys to train entry level engineers. This is typically delivered as classroom sessions coupled with extensive hands-on exercises and assignments.

The purpose of this program announcement is to communicate the latest version of Foundation Program Rollout and to provide a quick understanding on new courseware, rollout process and assessment methodologies.

Program Description

Since the inception of Campus Connect, Campus Connect partner colleges have experienced Foundation Program 1.0 (comprised of 8 courses), Foundation Program 2.0 (inclusive of Client Server Concepts) along with process improvements from email based model to portal based tracking.

Program Overview - Foundation Program 3.1

What's new in FP 3.1

1. New Course elements - Object Oriented Paradigm using JAVA.
2. Integrated project with technology options as Open source and JAVA.
3. More practical aspect of project development using Open source tools.

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The enhancements on the Foundation Program offerings and processes are based on the changes in the Foundation Program at Infosys Global Education Center and the feedback and inputs received from the Campus Connect partner colleges.

The new Foundation Program is now comprised of six courses, namely,

1. **Introduction to Computer Systems (ICS):** This course gives insights into real life projects and various levels in IT, the role of a Software Engineer in the IT industry and the importance of training as well as some basics about the working of computers.

2. **Operating System Concepts (OS):** This course introduces operating system concepts like memory, process and device management. It also helps the participants understand the concepts of inter-process communication and deadlocks.

3. **Problem Solving Techniques (PST):** This course introduces various problem solving approaches, development and implementation of algorithms and data structures.

4. **Programming & Testing (P&T):** This course introduces programming paradigms and coding standards for programming. It also provides an understanding of the compilation steps and the process involved. This course includes problem solving through structured programming approach and implementation using data structures. Additionally, this course covers testing techniques and software development life cycles.

5. **Relational Database Management Systems (RDBMS):** This course introduces the basic concepts and terminology of RDBMS, explains database design using Entity Relationship (ER) modelling and normalization, SQL commands and embedded SQL.

Integrated Project Development

Integrated Project Development is the key component of Foundation Program 3.1. The objective is to expose students to project development best practices and provide a channel to apply the concepts assimilated during the classroom sessions. The project requirements are to be finalized by the FP faculty members and are to be evaluated as per the project evaluation framework. The Integrated Project development is primarily based on P&T, OOC and RDBMS courses.

Considering the classroom hours and integrated project development of 25-32 lab hours, the suggested spread of the program is between 3 to 6 months duration. It is expected that one or more (parallel) batches of FP should be completed over the stretch of one semester.

Program Deliverables and Batch Planning Information

Plan a Batch

With the release of Foundation Program 3.1, the FP batch data is fully managed using the Campus Connect portal (http://campusconnect.infosys.com). Log on to the Campus Connect Portal with College SPoC credentials and select option Foundation Program Æ FP Inbox. Upload the batch details using the ‘Plan a batch’ screen. College SPoC provides batch overview, course details, important course dates, and student details to complete the batch planning data. Every new batch submitted on the Campus Connect portal goes through an approval process. Infosys DC SPoC approves/resends the batch by carefully evaluating the batch plan. A unique batch identifier is generated for every approved batch. This batch identifier is used for the purpose of tracking and closure of FP batches. Hence it is required that College SPoC uploads the FP batch details on the Campus Connect Portal.
The Campus Connect SPoC at the partner college submits the Foundation Program plan on the portal for approval. After the Foundation program batch plan is created and approved for execution and the student selection is completed, the college is all set to start the first component of the Foundation Program i.e. pre-test.

**FP 3.1 Process**

The typical process of executing the Foundation Program 3.1 is depicted in the diagram below:

- **Batch Commencement**
  - **Pre-Test**
    - Online mode
    - ICS (Self Study)
    - Based on ICS, OS, PST
    - Based on P&T, RDBMS
    - CAMP based MCQs
  
- **OS (6 Hrs.)**
  - Self Evaluation
  - PST (3 Hrs.)

- **FP Course Delivery-1**
  - FP Test-1
  - FP Test-2

- **Integrated Project Evaluation**
- **Batch Closure**
  - Program Overview - Foundation Program 3.1
  - P&T (18-19 Hrs.) OOC with JAVA (14-17 Hrs.) RDBMS (14-20 Hrs.)
  - FP Course Delivery-2
  - User Interface Design (self study) Lab work (25-32 Hrs.)
  - Integrated Project Development
  - Faculties to prepare basic SRS & System design
  - Rubrics based evaluation framework
  - Student Deliverables: Enhanced SRS, System, Test Plans, Code and Deployment

- **FP Re-Test 1**
- **FP Re-Test 2**

- **Doubt Clearing Session**

- **FP Test-1**

- **FP Test-2**

- **Integrated Project Evaluation**

- **Batch Closure on CC portal**
Pre-Test
This activity is to be conducted before the first course of FP rollout. Campus Connect partner college has to arrange this pre-test for the FP batch students. The expected mode of deploying pre-test is ONLINE.

The objective of this pre-test is:

a. To gain insight into the practicality of the FP.
b. To provide understanding of the relevance and importance of each module in FP.
c. To provide feedback to students.

After taking this pre-test, the students will be able to:

a. Understand the importance of the Foundation Program.
b. Improve preparatory reading prior to the Foundation Program classes.
c. Exercise learning experiences.
d. Gauge the areas of improvement.

By arranging this pre-test, the colleges will be able to:

a. Observe enhanced student interest in the Campus Connect program.
b. Provide comprehensive feedback to students. This will help students and faculty members in identifying gaps in learning and competencies.
c. Get a baseline of their students’ competencies.

The multiple choice questions (MCQs) in the pre-test should be based on the CAMP methodology. For details please refer to the section on CAMP Methodology in this document. Please share the question banks created with the Infosys DC for review before scheduling the test.

The Campus Connect team recommends sharing of individual’s pre-test results along with course-wise analysis. Sharing the question paper along with correct answers helps students in reinforcing the objectives of pre-test. By doing this, students will be able to co-relate the pre-test question with its appropriateness during the linked FP course delivery.

Note: Pre-test should not be used as a means for student selection. The performance in the pre-test should not be used for student discontinuation in FP batch. There is no weight-age for pre-test in the final score.

The pre-test should be based on the Foundation Program 3.1 course coverage. The pre-test should be made up of objective type, multiple choice questions (MCQs). The breakup of the questions for pre-test should be as follows:

<table>
<thead>
<tr>
<th>FP Course Name</th>
<th>Number of MCQs per FP Course</th>
<th>Total Marks per FP Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Computer Systems (ICS)</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Problem Solving Techniques (PST)</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating Systems (OS)</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Programming and Testing (P&amp;T)</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Relational Database Management Systems (RDBMS)</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

Program Overview - Foundation Program 3.1

Object Oriented Concepts using JAVA (OOC) | 10                      |
After the pre-test is conducted, the actual course deliveries can start. The first three courses Introduction to Computer Systems (ICS), Problem Solving Techniques (PST) and Operating Systems (OS) set the necessary groundwork required for the next level courses. Programming and Testing (P&T), Object oriented concepts using JAVA (OOC) and Relational Database Management Systems (RDBMS) delivered in the second set of course delivery. During the course delivery of these subjects, few classroom hours are to be utilized to provide understanding on the integrated project development. This includes giving exposure to the system requirements, deliverables, standards to be followed, execution map and project assessment framework. For the details on the usage of these hours, kindly refer to Integrated Project development section.

Case studies and assignments
Along with online assessments during the Foundation Program, students are expected to complete the case studies and assignments for these courses as per the assessment framework. The FP faculties are to prepare these case studies/assignments that are to be reviewed with the Infosys team prior to usage.

The first online assessment is to be conducted for the batch after completing the courses - Introduction to Computer Systems (ICS), Problem Solving Techniques (PST) and Operating Systems (OS). This is typically called FP test 1. The re-test option is available for FP test. See the FP re-test criteria. A doubt clearing session is to be arranged before FP Course Delivery-2.

This test is based on the courses Programming and Testing (P&T), Object oriented concepts using Java, and Relational database Management Systems (RDBMS). Like FP Test-1, a FP retest-2 and a doubt clearing session are to be completed. The re-test option is available for FP Test-2.

FP Re-test Criteria
FP Re-test can be offered to the students in following scenarios
• Students who have scored less than 60% in the respective FP Test. e.g. A student who has scored less than 30 marks out of 50) in FP Test-1, can opt for FP Retest-1
• Students who have missed the test due to genuine reasons. The faculty members are to take the responsibility of evaluating the genuineness in such cases.

Doubt Clearing Sessions
Campus Connect team strongly recommends scheduling a doubt clearing session for students after FP Test -1 and Test -2. The objective of conducting the doubt clearing session is to provide a forum to students to clarify doubts, if any, about the course focus areas.

CAMP Methodology
The FP Test question papers are set based on the CAMP model of assessment. CAMP stands for Conceptual, Analytical, Memory Based and Practice Based questions. The recommended distribution of questions over the different aspects of CAMP model should typically be: C+M = 20-30% and A+P = 70-80%.
Integrated Project Development

Integrated Project development can be done in parallel with FP Test 2 and Doubt Clearing sessions. The context setting for Integrated Project starts during FP Course Delivery-2. About EIGHT classroom hours are allotted during Programming and Testing (P&T) course, to provide the understanding on the integrated project development. These project briefing hours should be utilized for setting the context for the integrated project development and to provide exposure to the system requirements, deliverables, etc. A suggested break-up of the activities are as below:

Campus Connect recommends discussion on following areas related to Integrated Project Development.

• Integrated Project Development Plans
• Integrated Project Deliverables
• Exposure to Integrated Project Assessment Framework

After the Relational Database Management Systems (RDBMS) course is completed, dedicated lab hours (approximately 25-32 lab hours) are to be allocated for the project development. The students will work in teams of 4-5 members each for the Integrated Project Development.

Integrated Project Assessment

The last component of the FP rollout is project assessments as per the evaluation model shared by the Campus Connect team.

FP Certification

With Foundation Program 3.1 Campus Connect has introduced certification criteria for successful completion of the program. Every student fulfilling ALL parameters mentioned below is eligible for the FP Certificate.

• Foundation Program attendance with minimum attendance required for classroom sessions is 75%
• ALL the tests, case studies and assignments are completed
• Integrated Project completed
• Total score in all FP assessments, case studies and project is equal to or more than 60% (i.e. Total number of marks earned equal to or more than 150 out of 250)

Partner Colleges are to issue and keep track of the issued certificates for future reference.

FP Closure

At the end of FP batch execution, closure process should be immediately initiated. This involves submission of FP closure reports and other required documents on the Campus Connect Portal.

# Project Briefing Activity

Suggested number of hours

1 Requirements Elicitation as per the Project Specification 1 - 1.5
2 Explaining the usage and design of project deliverable templates
   High Level Design Document
   Low Level Design Document
   Unit Test Plan
   Integrated Test Plan
   3 - 4
3 Program Overview - Foundation Program 3.1

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The table below gives an overview of FP Assessment framework, assessment units, course coverage and scope.

<table>
<thead>
<tr>
<th>Assignments / Case Studies</th>
<th>Multiple Choice Questions (MCQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP Test-1 (Online Assessment)</td>
<td>ICS -                      5                    5               5</td>
</tr>
<tr>
<td></td>
<td>OS 10 15                                     15                            25</td>
</tr>
<tr>
<td>FP Test-2 (Online Assessment)</td>
<td>P&amp;T                         10 15                  15             25</td>
</tr>
<tr>
<td></td>
<td>RDBMS 20                    20  20            40</td>
</tr>
<tr>
<td>Integrated Project P&amp;T ,RDBMS</td>
<td>As per project evaluation guidelines 1 00 1 00</td>
</tr>
<tr>
<td>Total</td>
<td>250 250</td>
</tr>
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</table>

Suggested Activities for Partner College:
1. Batch Plan submission on Campus Connect Portal
2. Provision for Online Assessment Platform for conducting the FP Assessments
3. Conducting Pre-Test in ONLINE mode
4. Planning for FP Test 1 and Test 2 by creating sets of Multiple Choice Questions (MCQs) based on CAMP methodology.
5. Completing FP Test 1 and Test 2 Question Set and review with Infosys Development Center prior to conducting these assessments.
6. Conducting FP Test 1 and 2
7. Developing assignments and case studies as a part of FP Test -1 and Test -2. Completing case study and assignment review with Infosys Development Center prior to conducting these assessments.
8. Doubt clearing sessions along with FP Re-tests
9. Context setting sessions for Integrated Project Development
10. Lab hours allocations for executing the Integrated Project
11. Scheduling the Integrated Project Assessments
12. Generating the student score records and completing the closure report
13. Issuing the FP completion certificates to students

Program Governance:
Infosys SPoC – Infosys will coordinate with associated regional colleges for rolling out this program. Infosys SPoC will be the designated person for all queries and clarifications.
College SPoC – College Single Point of Contact will be one of the core team members of the respective college.

Program Overview - Foundation Program 3.1
OOC                          10 25                  25            35

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<table>
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<tr>
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<tbody>
<tr>
<td>1. Campus Connect Portal</td>
</tr>
<tr>
<td><a href="https://campusconnect.infosys.com">https://campusconnect.infosys.com</a></td>
</tr>
<tr>
<td>2. Campus Connect MoU document at Partner college</td>
</tr>
<tr>
<td>3. Program Announcement for</td>
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<tr>
<td>a. Campus Connect Program</td>
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<tr>
<td>b. Faculty Development Program</td>
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<td>c. Campus Connect Portal</td>
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<tbody>
<tr>
<td>FP Program Announcement Version 5.0 - April, 2012</td>
</tr>
</tbody>
</table>
Frequently Asked Questions

1. What is covered in the Infosys Foundation Program?
The courses of the Infosys Foundation Program cover the following topics, which is the basis for software development:
   - Introduction to Computer Systems (ICS)
   - Problem Solving Techniques (PST)
   - Operating System Concepts (OS)
   - Programming and Testing (P&T)
   - Relational Database Management Systems (RDBMS)

2. Does attending this program entitle the student to placement in Infosys?
No. Infosys placements are decided through the regular recruitment process. Those students who are already selected by Infosys will gather more knowledge by attending this program.

3. What are the eligibility criteria to attend this program?
The program is aimed at the final and pre-final year engineering students. The exact eligibility criteria to select students for the program are decided by the partner college. However, students recruited by Infosys should complete this program when offered by college before reporting at Infosys.

4. Is the program open to students of non-IT engineering branches?
Yes. Students from IT-related as well as non-IT-related branches can attend this program.

5. Is it compulsory for all the Infosys selected students to attend this program?
Yes. All the students who have been offered employment with Infosys should attend the program and produce the FP certificate at the time of joining.

6. If a student who is yet to be placed attends this program, is it compulsory for the student to join Infosys?
No. There is no such restriction.

7. Can students who are not selected by Infosys attend the program?
Yes. They can attend the program.

8. What are the benefits of attending the program for students?
Student experiences industry-oriented subjects which are essential to be eligible for IT industry and also receive a certificate on completing the qualifying criteria.

9. What if an Infosys selected student does not complete the Foundation Program in college?
All the students who were offered employment with Infosys should complete the program.

10. Is the ONLINE assessment a mandatory requirement for FP completion?
Yes. All assessments should be done online only.

11. Is the Project Implementation a mandatory requirement for FP?
Yes. Project Implementation is a mandatory requirement to complete the FP rollout.