

Solapur University, Solapur



Faculty of Commerce

Bachelor of Computer Applications (BCA)

Credit and Grading System

(June, 2014)

SOLAPUR UNIVERSITY, SOLAPUR
BACHELOR OF COMPUTER APPLICATIONS
(B.C.A. I Sem-I and II) Semester Pattern
(Credit & Grading System) June 2014

1. Title :

The degree shall be titled as Bachelor of Computer Applications (BCA)

2. Objectives of the course:

This is a three years bachelor degree course in computer applications aimed at developing computer professional versatile in use of computers mostly in business world. The emphasis is to have generality of developing professionals as programmer, system analysts, database administrators, documentation officer etc.

3. Duration:

- i) The course shall be a full time course.
- ii) The duration of course shall be three years.
- iii) The course shall be run on self-supporting basis.

4. Number of Students:

A batch shall consist of not more than 60 students.

5. Eligibility:

- i) A candidate for being eligible for admission to the Degree Course in Computer. Candidate shall have passed XII std. Examination of the Maharashtra Board of Higher Secondary Education or its equivalent or any Diploma of not less than two years.
- ii) A candidate has to appear for a common entrance test to be conducted by respective college for getting admission to this course.

1 Percentage at HSC – 100

2. Percentage at entrance – 100

200

The merit list will be prepared on the basis of percentage of HSC and percentage at entrance examination. Students will be admitted on the basis of Merit list.

The B.C.A. Examination will be 3600 marks divided into 3 parts as per details given below:

- (i) B.C.A. Part I (Sem I, II) Aggregate marks 1200
- (ii) B.C.A. Part II (Sem III, IV) Aggregate marks 1200
- (iii) B.C.A. .Part III (Sem V, VI) Aggregate marks 1200

6. Credit and Grading System

With the view to ensure worldwide recognition, acceptability, horizontal as well as vertical mobility for students completing under graduate degree, the Solapur University is implementing Credit and grading system of Evaluation at Undergraduate level.

Credit is a numerical value that indicates student's work load (Lectures, Lab work, Seminars, Tutorials, Field work, etc.) to complete a course unit. In most of the universities 15 contact hours constitute one credit. The contact hours are transformed into Credits. As per present norms, there are 4 contact hours per paper (subject) per week which works out to be 60 contact hours per paper (subject) per semester.

In Solapur University, for B.C.A.-I, there are 6 compulsory subjects and each subject has 4 contact hours per paper (subject) per week. Therefore, total contact hours per week are 24.

Moreover, the grading system of evaluation is introduced for B.C.A. course, wherein process of Continuous Internal Evaluation is ensured. The candidate has to appear for Internal Evaluation of 30 marks and University Evaluation for 70 marks. It is 70 + 30 pattern of evaluation. It is applicable for theory and practical as well. The details regarding this evaluation system are as under.

BCA Semester-I Subjects

| Paper Name: Introduction to Information Technology Paper Code: 101 | | | | | | | | | |
|---|-----|---------|--------|-----|-----|----|-----|-----|-------------------|
| TLM | Hrs | Credits | AM | Min | Max | AT | Min | Max | Evaluation System |
| Lectures | 4 | 4 | Theory | | 100 | UA | 28 | 70 | Marks System |
| | | | | | | CA | 12 | 30 | Marks System |

| Paper Name: Procedural Programming through 'C' Paper Code: 102 | | | | | | | | | |
|---|-----|---------|--------|-----|-----|----|-----|-----|-------------------|
| TLM | Hrs | Credits | AM | Min | Max | AT | Min | Max | Evaluation System |
| Lectures | 4 | 4 | Theory | | 100 | UA | 28 | 70 | Marks System |
| | | | | | | CA | 12 | 30 | Marks System |

| Paper Name: Fundamentals Of Financial Accounting Paper Code: 103 | | | | | | | | | |
|---|-----|---------|--------|-----|-----|----|-----|-----|-------------------|
| TLM | Hrs | Credits | AM | Min | Max | AT | Min | Max | Evaluation System |
| Lectures | 4 | 4 | Theory | | 100 | UA | 28 | 70 | Marks System |
| | | | | | | CA | 12 | 30 | Marks System |

| Paper Name: Business Communication Paper Code: 104 | | | | | | | | | |
|---|-----|---------|--------|-----|-----|----|-----|-----|-------------------|
| TLM | Hrs | Credits | AM | Min | Max | AT | Min | Max | Evaluation System |
| Lectures | 4 | 4 | Theory | | 100 | UA | 28 | 70 | Marks System |
| | | | | | | CA | 12 | 30 | Marks System |

| Paper Name: Discrete Mathematics Paper Code: 105 | | | | | | | | | |
|---|-----|---------|--------|-----|-----|----|-----|-----|-------------------|
| TLM | Hrs | Credits | AM | Min | Max | AT | Min | Max | Evaluation System |
| Lectures | 4 | 4 | Theory | | 100 | UA | 28 | 70 | Marks System |
| | | | | | | CA | 12 | 30 | Marks System |

| Paper Name: Lab Course -1 Practical Paper-I based on Paper Code BCA101 Practical Paper-II based on Paper Code BCA102 Paper Code: 106 | | | | | | | | | |
|---|-----|---------|-----------|-----|-----|----|-----|-----|-------------------|
| TLM | Hrs | Credits | AM | Min | Max | AT | Min | Max | Evaluation System |
| Practical | 4 | 4 | Practical | | 100 | UA | -- | -- | Marks System |
| | | | | | | CA | 40 | 100 | Marks System |

BCA Semester-II Subjects

| Paper Name: OOP with C++ Paper Code: 201 | | | | | | | | | |
|---|-----|---------|--------|-----|-----|----|-----|-----|-------------------|
| TLM | Hrs | Credits | AM | Min | Max | AT | Min | Max | Evaluation System |
| Lectures | 4 | 4 | Theory | | 100 | UA | 28 | 70 | Marks System |
| | | | | | | CA | 12 | 30 | Marks System |

| Paper Name: Web Technology Paper Code: 202 | | | | | | | | | |
|---|-----|---------|--------|-----|-----|----|-----|-----|-------------------|
| TLM | Hrs | Credits | AM | Min | Max | AT | Min | Max | Evaluation System |
| Lectures | 4 | 4 | Theory | | 100 | UA | 28 | 70 | Marks System |
| | | | | | | CA | 12 | 30 | Marks System |

| Paper Name: Financial Accounting with Tally Paper Code: 203 | | | | | | | | | |
|--|-----|---------|--------|-----|-----|----|-----|-----|-------------------|
| TLM | Hrs | Credits | AM | Min | Max | AT | Min | Max | Evaluation System |
| Lectures | 4 | 4 | Theory | | 100 | UA | 28 | 70 | Marks System |
| | | | | | | CA | 12 | 30 | Marks System |

| Paper Name: Development of Human Skills Paper Code: 204 | | | | | | | | | |
|--|-----|---------|--------|-----|-----|----|-----|-----|-------------------|
| TLM | Hrs | Credits | AM | Min | Max | AT | Min | Max | Evaluation System |
| Lectures | 4 | 4 | Theory | | 100 | UA | 28 | 70 | Marks System |
| | | | | | | CA | 12 | 30 | Marks System |

| Paper Name: Business Statistics Paper Code: 205 | | | | | | | | | |
|--|-----|---------|--------|-----|-----|----|-----|-----|-------------------|
| TLM | Hrs | Credits | AM | Min | Max | AT | Min | Max | Evaluation System |
| Lectures | 4 | 4 | Theory | | 100 | UA | 28 | 70 | Marks System |
| | | | | | | CA | 12 | 30 | Marks System |

| Paper Name: Lab. Course-2 Practical Paper- I based on: Paper Code BCA201 & Paper Code BCA202 Practical Paper-II based on : Paper Code BCA203 & Paper Code BCA204 Paper Code: 206 | | | | | | | | | |
|---|-----|---------|-----------|-----|-----|----|-----|-----|-------------------|
| TLM | Hrs | Credits | AM | Min | Max | AT | Min | Max | Evaluation System |
| Practical | 4 | 4 | Practical | | 100 | UA | -- | -- | Marks System |
| | | | | | | CA | 40 | 100 | Marks System |

Abbreviations: TLM – Teaching Learning Method; AM – Assessment Method; AT: Assessment Type; UA – University Assessment; CA – College Assessment; Hrs- Contact Hours per Week; Min – Minimum Marks; Max – Maximum Marks

Credit System Structure for B.C.A- I Semester I

| Code | Subject | Hrs/Week | | | Paper Marks | U A | CA | Credits | Total |
|-------|--|----------|---|---|-------------|-----|-----|---------|------------|
| | | L | T | P | | | | | |
| 101 | Introduction to Information Technology | 4 | - | - | 100 | 70 | 30 | 4 | |
| 102 | Procedural Programming through 'C' | 4 | - | - | 100 | 70 | 30 | 4 | |
| 103 | Fundamentals Of Financial Accounting | 4 | - | - | 100 | 70 | 30 | 4 | |
| 104 | Business Communication | 4 | - | - | 100 | 70 | 30 | 4 | |
| 105 | Discrete Mathematics | 4 | - | - | 100 | 70 | 30 | 4 | |
| 106 | Lab Course -I Practical Paper-I based on Paper Code BCA101 Practical Paper-II based on Paper Code BCA102 | - | - | 4 | 100 | -- | 100 | 4 | |
| | | | | | | | | | |
| Total | | 20 | - | 4 | 600 | | | 24 | 24 credits |

Abbreviations: L: lectures, T: Tutorials, P: Practicals; UA: University Assessment by End Semester Examination; CA: College assessment by Internal Continuous Examination; UA (University Assessment): University Theory paper shall be of 70 marks for 3.00 hrs duration; CA (College Assessment): The internal examination for Theory and Practical course.

Credit System Structure for B.C.A- I Semester II

| Code | Subject | Hrs/Week | | | Paper Marks | U A | CA | Credits | Total |
|----------|---|----------|---|---|-------------|-----|-----|---------|------------|
| | | L | T | P | | | | | |
| 201 | OOP with C++ | 4 | - | - | 100 | 70 | 30 | 4 | |
| 202 | Web Technology | 4 | - | - | 100 | 70 | 30 | 4 | |
| 203 | Financial Accounting with Tally | 4 | - | - | 100 | 70 | 30 | 4 | |
| 204 | Development of Human Skills | 4 | - | - | 100 | 70 | 30 | 4 | |
| 205 | Business Statistics | 4 | - | - | 100 | 70 | 30 | 4 | |
| 206 | Lab. Course-2 Practical Paper-I based on: Paper Code BCA201 & Paper Code BCA202 Practical Paper-II based on : Paper Code BCA203 & Paper Code BCA204 | - | - | 4 | 100 | | 100 | 4 | |
| | | | | | | | | | |
| Total | | 20 | - | 4 | 600 | | | 24 | 24 credits |
| BCA-I | | | | | | | | | |
| Sem.- I | | | | | 600 | | | 24 | 24 |
| Sem.- II | | | | | 600 | | | 24 | 24 |
| Total | | | | | 1200 | | | 48 | 48 credits |

Abbreviations: L: lectures, T: Tutorials, P: Practical; UA: University Assessment by End Semester Examination; CA: College assessment by Internal Continuous Examination; UA (University Assessment): University Theory paper shall be of 70 marks for 3.00 hrs duration; CA (College Assessment): The internal examination for Theory and Practical course.

7. Internal Evaluation

The internal evaluation will be of 30 marks which will consists of following heads. The internal evaluation should be done accordingly and marks should be send to university.

| Internal | Marks |
|------------------------------|-----------------|
| Attendance | 05 Marks |
| 2 Class & 2 Home Assignments | 10 Marks |
| Seminar/ Group Exercise | 10 Marks |
| Mid Test | 05 Marks |
| Total | 30 Marks |

8. Standard of Passing:

The student has to secure a minimum of 4.0 grade points (Grade C) in each paper. A student who secures less than 4.0 grade point (39% or less marks, Grade FC/FR) will be declared fail in that paper (subject) and shall be required to reappear for respective paper.

A student who failed in University Examination (Theory) & passed in internal assessment of a same paper (subject) shall be given FC Grade. Such student will have to appear for University Examination only.

A student who fails in Internal Assessment and passed in University examination (Theory) shall be given FR Grade. Such student will have to appear for both University examination as well as internal assessment.

Passing Criteria for ATKT:

| | |
|----|---|
| 1) | A Candidate who fails at Sem-I examination will be allowed to keep term for Sem-II examination. |
| 2) | A Candidate who fails in not more than Four heads of passing including aggregate of First Year (Sem-I&II) exam will be permitted to keep term in the second year. |
| 3) | A Candidate who fails at Sem-III examination will be allowed to keep terms for Sem-IV examination. |
| 4) | A Candidate who fails in not more than Four heads of passing including aggregate of Second Year (Sem-III&IV) exam will be permitted to keep term in the Third year. However while going to third year i.e. Vth Semester a candidate should clear all subjects of first year (i.e.Sem-I&II taken together) |
| 5) | A Candidate who fails at Sem-V examination will be allowed to keep term for Sem-VI examination |

9. Conversion of Marks into Grades:

A table for the conversion of the obtained by students in each paper (out of 100) to grade and grade points is given below:

| Sr. No. | Range of Marks | Grade | Grade Points |
|---------|----------------|-------|---------------------------------|
| 1 | 80 – 100 | O | 10 |
| 2 | 70 – 79 | A + | 9 |
| 3 | 60 – 69 | A | 8 |
| 4 | 55 – 59 | B + | 7 |
| 5 | 50 – 54 | B | 6 |
| 6 | 45 – 49 | C + | 5 |
| 7 | 40 – 44 | C | 4 |
| 8 | <=39 | FC | 0 failed in Semester Exam |
| 9 | <=39 | FR | 0 failed in Internal Assessment |

Calculation of Grade Point Average (GPA):

1. Grade Point Average at the end of a semester (SGPA)

$$\text{SGPA} = \frac{(G_1 \times C_1) + (G_2 \times C_2) + \dots}{\sum C_i \text{ (i.e. the total number of credits offered by the student during a semester)}}$$

2. Cumulative Grade Point Average (CGPA)

$$\text{CGPA} = \frac{(G_1 \times C_1) + (G_2 \times C_2) + \dots}{\sum C_i \text{ (i.e. the total number of credits offered by the student upto and including the semester for which CGPA is calculated)}}$$

3. Final Grade Point Average (FGPA) will be calculated in the similar manner for the total number of credits offered for completion of the said course.

Where C_i : Credits allocated for the i^{th} course

G_i : Grade point scored in i^{th} paper (subject)

10. Conversion of average grade points into grades:

The student's performance of course will be evaluated by assigning a letter grade on ten points scale as given below:

| SGPA/CGPA/FGPA | Letter Grade |
|-----------------------|---------------------|
| 9.5 – 10 | O |
| 8.5 – 9.4 | A + |
| 7.5 – 8.4 | A |
| 6.5 – 7.4 | B + |
| 5.5 – 6.4 | B |
| 4.5 – 5.4 | C + |
| 4.0 – 4.4 | C |
| < =3.9 | FC |
| | FR |