EXAMINATION CURRICULUM - BCA
(As per the guidelines of AKU, Patna)

Hon'ble members of "Syllabus & regulation committee for B. C. A & B. B. A".

1. Prof. (Dr.) S. N. Guha   :   Chairman
   Vice-Chancellor, AKU

2. Dr. Dolly Sinha   :   Member
   Principal, Magadh Mahila College, Patna

3. Dr. R. N. Jha   :   Member
   Head-Management, L. N. M. I. E. S. C, Patna

4. Dr. Vijay Bahadur Singh   :   Member
   Head- IT, , L. N. M. I. E. S. C, Patna

5. Prof. Somnath Dutta   :   Member
   Associate Professor, C. I. M. P

6. Father Nishant   :   Member
   Principal, St. Xavier's College of Mang. & Technology

7. Dr. A. Prasad   :   Member
   OSD(Exam), AKU

8. Prof. (Dr.) N. K. Singh   :   Member-Secretary
   Registrar, AKU

1: Eligibility:

A candidate seeking admission to B.C.A. Programme must satisfy the following conditions.

1. He/She must be an Intermediate/+2 level in Arts, Science, or Commerce as a regular student or as a student of distance education.

2. Students who did not study Mathematics at the Intermediate/Plus 2 level have to appear for an additional qualifying test for basic Mathematics conducted by the College.

3. He/She must have obtained at least 45% marks overall at intermediate/+2 level. The students from SC/ST/EBC/Differently Abled categories should have 40% marks overall.

2: Admission:

1. Admission will be taken in the month of July in each Academic Year.

2. The University reserves the right to cancel the admission of any student at any stage of his study at the University on grounds of unsatisfactory academic performance, irregular and insufficient attendance, or indiscipline. A minimum of 75% attendance is mandatory in each semester for appearing in semester-end examination.

3. At the time of admission, the student is required to provide the following documents in original:

   a. Matric/ICSE/CBSE/NIOS/Other Board Certificate.

   b. Pass Certificate of the qualifying examination - Plus 2 or Intermediate.

   c. Marks Sheet of the qualifying examination – Plus 2 or Intermediate.

   d. College/School Leaving Certificate (CLC/SLC).

   e. Character Certificate of Plus 2/Intermediate.

   f. Migration Certificate (Not necessary for those from Bihar Board).

   g. Caste Certificate (from DM or competent authority for SC/ST/OBC/EBC/Differently Abled)

3: Registration:

All students must register themselves at the University within the fixed date notified by the University in the first semester itself.

4: Duration of Programme:

1 An academic year is divided into two semesters. In each semester, courses are offered in 15 teaching weeks and the remaining 5 weeks are to be utilized for conduct of examinations and evaluation purposes. Each week has at least 30 working hours spread over 6 days a week.

2 A candidate admitted to the B.C.A. Programme shall undergo a regular course of study for Three Academic Years, that is, Six Semesters. Semester-I shall be from July to December and Semester-II shall be from January to May. There shall be not less than 90 working days which shall comprise not less than 450 teaching/working hours for each semester. (Exclusive of the days for the conduct of University or external end-semester examinations).

5: Course Structure:

1 All subjects will have Lecture-Tutorial-Practical (L-T-P) components to indicate the contact hours and will have a credit count. Teaching of subjects will be reckoned in terms of credits.

2 Every paper, identified by a single course identifier, shall be taught by an assigned teacher who may be assisted by adjunct faculty, teaching assistants, and by other members of the faculty concerned.

3 The curriculum for B.C.A. Course will include a "Project Work / Student Internship Programme (SIP)" of 04 weeks duration after the 5th semester. The experience may be obtained in any reputed company/organization belonging to any industry, or any organization of comparable repute. The place of work has to get prior approval of the Department of the College. On completion of the project, the student shall submit a report to the department, which will earn a total of 12 credits after evaluation and viva-voce examination. If there is a serious difficulty in finding placements for project work, writing a Term Paper with empirical data can be considered under a competent faculty. This will be at the discretion of the College Authority.

6: Examinations:

1 There shall be examinations at the end of each semester as per the academic calendar of the University.

2 A candidate who does not pass the examination in any paper(s) shall be permitted to appear in such failed paper(s) in the subsequent examinations to be held in December/January or May/June. Those who fail in odd-semesters will appear in a subsequent examinations of odd-semesters only. For example, if a student fails in a paper(s) in the 1st semester, s/he can appear in 3rd or 5th semester examinations only. The same applies to even-semesters. After the declaration of the result of the sixth semester examinations, special examinations will be

conducted for clearing the backlog of 5th and 6th semesters.

3 A candidate should get enrolled/registered for the first semester examination. If enrollment/registration is not possible in the preceding semesters owing to shortage of attendance beyond condonation limit/regulations prescribed OR belated joining OR on medical grounds, the candidates are not permitted to move to the next semester. Such candidates shall redo the semester in the following academic year as a regular student.

4 Student must have 75% of attendance in each paper for appearing in the end Semester examination. A shortage of attendance upto 10% can be condoned by the Principal as per his/her discretion and beyond that by the Vice-Chancellor as per the University rules.

7: Passing of Examinations and Promotion Rules:

A student will be promoted from second semester to the third semester and from fourth semester to the fifth semester if s/he has secured a minimum CGPA of 5.

8: Evaluation:

1. Pattern of Evaluation of the End-semester examinations will be as per the rules of the University.

2. The performance of a student in each course is evaluated in terms of percentage of marks with a provision for conversion to grade points. Evaluation for each course shall be done by a continuous internal assessment (CIA) by the course teacher concerned as well as by an end semester examination and will be consolidated at the end of the course. The ratio of marks to be allotted to continuous internal assessment and to end semester examination is 40:60. The evaluation of practical work, wherever applicable, will also be based on continuous internal assessment and on an end-semester practical examination.

3. The details of the Continuous Internal Assessment (CIA) should be worked out by the College and a copy should be given to the University. All the relevant records of the CIA should be preserved by the College till the student passes out.

4. The passing minimum for CIA (Continuous Internal Assessment) shall be 40% out of 40 marks (i.e. 16 marks). Failed candidates in the Internal Assessment are permitted to improve their Internal Assessment marks by writing a re-test or by submitting assignments as per the decision of the College Authority. *The passing minimum for theory component should be shall be 40%.*

9. Awarding of Degree

Degree will be awarded to a student provided, s/he fulfills the following conditions;

1. The student passes in all examinations and thus earns the required number of credits;

2. S/he completes the requirement of spending 30 hours during the period of three years in involving herself/himself in social work in order to raise the social consciousness of the students and make a small contribution to society. This could be in a village/NGO/Charitable Institutions or NSS or Adult Literacy Programme, etc. A declaration letter from the College regarding the completion of required number of hours to the University is a must.

SYLLABUS FOR BCA

YEAR – 1

SEMESTER – 1

Theory

CODE	NAME OF THE PAPER	Period			Evaluation Scheme			CREDIT	HOURS
		LECTURES	TUTORIALS	PRACTICALS	MSE	ESE	SUB-TOTAL		
BCA 101	Communicative English	3	1	0	40	60	100	4	3
BCA 102	Basic Mathematics	4	1	0	40	60	100	5	5
BCA 103	Information Technology & Application	4	0	0	40	60	100	4	4
BCA 104	Principles of Management & Organization	4	1	0	40	60	100	5	5
BCA 105	Python Programming (Elective 1)	4	0	0	40	60	100	4	4
BCA 106	Problem Solving & Programming Concept (Elective 2)	4	0	0	40	60	100	4	4

Either Elective 1 or Elective 2 can be opted.

Sessional

CODE	NAME OF THE PAPER	Period			Evaluation Scheme			CREDIT	HOURS
		LECTURES	TUTORIALS	PRACTICALS	CPA	ESE	SUB-TOTAL		
BCA 107	Lab 103	0	0	3	20	30	50	2	3
BCA 108	Lab 105	0	0	3	20	30	50	2	3
BCA 109	Lab 106	0	0	3	20	30	50	2	3
	Total						600	26	29

SEMESTER – 2

Theory

CODE	NAME OF THE PAPER	Period			Evaluation Scheme			CREDIT	HOURS
		LECTURES	TUTORIALS	PRACTICALS	MSE	ESE	SUB-TOTAL		
BCA 201	Business English	3	1	0	40	60	100	4	3
BCA 202	Mathematics [Numerical Techniques]	4	1	0	40	60	100	5	5
BCA 203	System Analysis & Design	4	1	0	40	60	100	5	5
BCA 204	Problem Solving Technique & Programming in C	4	0	0	40	60	100	4	4
BCA 205	Operating System & Unix	4	0	0	40	60	100	4	4

Sessional

CODE	NAME OF THE PAPER	Period			Evaluation Scheme			CREDIT	HOURS
		LECTURES	TUTORIALS	PRACTICALS	CPA	ESE	SUB-TOTAL		
BCA 206	Lab 204	0	0	3	20	30	50	2	3
BCA 207	Lab 205	0	0	3	20	30	50	2	3
	Total						600	26	29

YEAR – 2

SEMESTER – 3

Theory

CODE	NAME OF THE PAPER	Period			Evaluation Scheme			CREDIT	HOURS
		LECTURES	TUTORIALS	PRACTICALS	MSE	ESE	SUB-TOTAL		
BCA 301	Objected Oriented Programming using C++	4	0	0	40	60	100	4	4
BCA 302	Internet & Web Designing	4	1	0	40	60	100	5	5
BCA 303	Java Programming	4	0	0	40	60	100	4	4
BCA 304	Software Engineering	4	1	0	40	60	100	5	5

Sessional

CODE	NAME OF THE PAPER	Period			Evaluation Scheme			CREDIT	HOURS
		LECTURES	TUTORIALS	PRACTICALS	CPA	ESE	SUB-TOTAL		
BCA 305	Lab 301	0	0	4	40	60	100	3	4
BCA 306	Lab 303	0	0	4	40	60	100	3	4
	Total						600	24	26

SEMESTER – 4

CODE	Theory — NAME OF THE PAPER	Period			Evaluation Scheme			CREDIT	HOURS
		LECTURES	TUTORIALS	PRACTICALS	MSE	ESE	SUB-TOTAL		
BCA 401	Relational Data Base Management System	5	0	0	40	60	100	5	5
BCA 402	Digital Electronics, Computer System Architecture, and Organisation	4	1	0	40	60	100	5	5
BCA 403	File & Data Structure	4	0	0	40	60	100	4	4
BCA 404	Introduction to Statistics	3	1	0	40	60	100	4	4

Sessional

CODE	NAME OF THE PAPER	Period			Evaluation Scheme			CREDIT	HOURS
		LECTURES	TUTORIALS	PRACTICALS	CPA	ESE	SUB-TOTAL		
BCA 405	Lab 401	0	0	4	40	60	100	3	4
BCA 406	Lab 403	0	0	4	40	60	100	3	4
	Total						600	24	26

YEAR – 3
SEMESTER – 5

CODE	Theory — NAME OF THE PAPER	Period			Evaluation Scheme			CREDIT	HOURS
		LECTURES	TUTORIALS	PRACTICALS	MSE	ESE	SUB-TOTAL		
BCA 501	Windows Programming using VB .Net	4	0	0	40	60	100	4	4
BCA 502	Graphics & Multimedia	4	0	0	40	60	100	4	4
BCA 503	Computer Network, Data Communication, and Client Server Technology	4	1	0	40	60	100	5	5
BCA 504	Business Accounting & ERP	3	1	0	40	60	100	4	4

Sessional

CODE	NAME OF THE PAPER	Period			Evaluation Scheme			CREDIT	HOURS
		LECTURES	TUTORIALS	PRACTICALS	CPA	ESE	SUB-TOTAL		
BCA 505	Lab 501	0	0	4	40	60	100	3	4
BCA 506	Lab 502	0	0	4	40	60	100	3	4
	Total						600	23	25

SEMESTER – 6

CODE	Theory — NAME OF THE PAPER	Period			Evaluation Scheme			CREDIT	HOURS
		LECTURES	TUTORIALS	PRACTICALS	MSE	ESE	SUB-TOTAL		
BCA 601 A	Web Technology (Elective 1)	5	0	0	40	60	100	5	5
BCA 601 B	Concept of Data Mining & Data Warehousing (Elective 2)	5	0	0	40	60	100	5	5
BCA 602	E-Commerce	4	1	0	40	60	100	5	5
BCA 603	Project & Viva	n/a	n/a	n/a	200	0	300	12	n/a

Sessional

CODE	NAME OF THE PAPER	Period			Evaluation Scheme			CREDIT	HOURS
		LECTURES	TUTORIALS	PRACTICALS	CPA	ESE	SUB-TOTAL		
BCA 604	Lab 601 A	0	0	3	40	60	100	2	3
BCA 605	Lab 601 B	0	0	3	40	60	100	2	3
	Total						600	24	13

Either Elective 1 or Elective 2 can be opted.

GRAND TOTAL:
CREDITS = 147
MARKS = 3600

PATLIPUTRA COLLEGE OF PROFESSIONAL EDUCATION

Tentative Schedule of MSE (Mid Semester Examination)

S.No	Class	Probable Date
1	BCA I Sem	3rd March to 6th March, 2025
2	BCA III Sem	7th April to 9th April, 2025
3	BCA V Sem	11th August to 13th August, 2025

PRINCIPAL