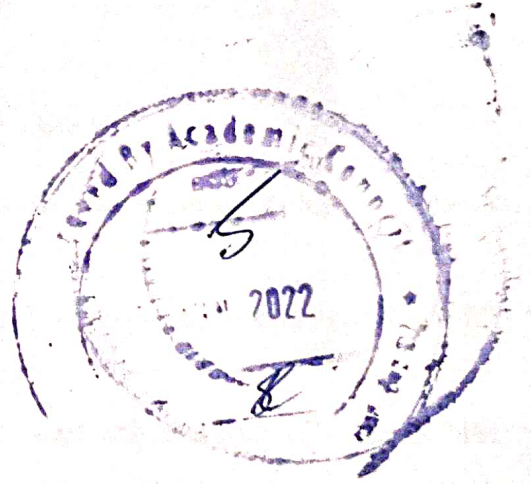


Curriculum Framework under Choice Based Credit System (CBCS) and
Syllabus for Outcome-Based Education (OBE) in
BSc. DIGITAL AND CYBER FORENSIC SCIENCE (DCFS) Degree Program
for the students admitted from the academic year 2022 – 23 and onwards



SREE SARASWATHI THYAGARAJA COLLEGE

An Autonomous, NAAC Re – Accredited with 'A' Grade, ISO 21001:2018 Certified Institution,
Affiliated to Bharathiar University, Coimbatore, Approved by AICTE for MBA/MCA and by UGC for
2(f) & 12(B) status

Palani Road, Pollachi – 642107, Coimbatore Dist, Tamilnadu

Email: stc@stc.ac.in www.stc.ac.in

**SREE SARASWATHI THYAGARAJA COLLEGE [AUTONOMOUS],
POLLACHI**
B.Sc (Digital & Cyber Forensic Science) degree program PEO, PO and PSO

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

Within a few years of obtaining a B.Sc degree in Digital Cyber and Forensic Science, the student will be able to

PEO1: Graduates are prepared to be employed in the field of cyber security and IT industries by providing expected domain knowledge in Cyber Security and Digital Forensic Science

PEO2: Graduates are provided with practical training, and hands-on and project experience to meet the needs in the field of Digital and Cyber Security.

PEO3: Achieve advanced knowledge in the field of Cyber and Digital Forensic Science to excel professionally in the Industry with effective communication to work in a team.

PEO4: Produce graduates who demonstrate ethical backgrounds and who can articulate the ethical and professional standards of the discipline.

PROGRAM OUTCOMES (PO)

The students at the completion of the program will be able to

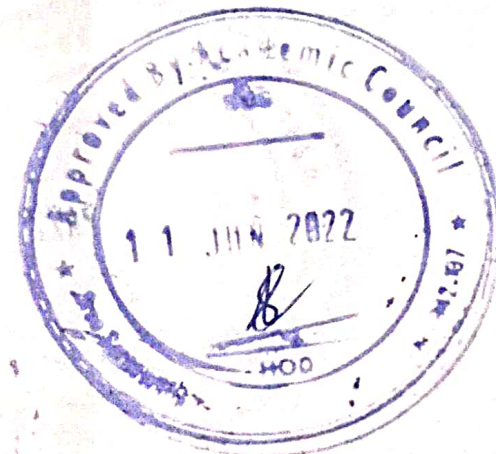
PO1: Investigate professionally with ethical responsibility as an individual as well as in multifaceted teams with a positive attitude

PO2: Adapt to sustain an emerging era in the field of digital forensic science and constantly upgrade skills towards independent and lifelong learning.

PO3: Develop oral and written communication skills through the sequence of courses, with particular attention to the development of the ability to present technical information without bias, at a variety of levels in the criminal justice system.

PO 4: Design, develop models and provide solutions to cater to the needs and to develop the skills to take up research and higher studies in the field of digital forensic science.

PO 5: Inculcate skills to excel in the fields of digital forensic science and IT-enabled services, Criminology sectors, Teaching, and Research.



PROGRAM SPECIFIC OUTCOMES (PSO)

At the completion of the program, the students will be able to

PSO1: Apply the knowledge gained during the course of the program with the ability to apply diverse information to solve a real problem.

PSO2: Apply the knowledge of ethical and management principles required to work in a team with stewardship of the society.

PSO3: Able to apply the knowledge gained during the course of the program in the areas of problem-solving, analysis, critical thinking, and analysis abilities

PSO4: Develop a conceptual understanding of cyber laws, rules of evidence, and legal system.

PSO5: To acquire the knowledge and develop the ability to use diplomacy and professionalism in group interactions throughout the sequence of courses.

Mapping the POs with PEO

POs/PEOs	PEO1	PEO2	PEO3	PEO4
PO1	S	M	M	M
PO2	M	S	M	S
PO3	L	M	S	M
PO4	M	M	M	S
PO5	L	M	S	S

S- Strong; L- Low; M-Medium

Mapping the PSOs with PEO

PSOs/PEOs	PEO1	PEO2	PEO3	PEO4
PSO1	M	S	M	M
PSO2	S	M	M	M
PSO3	M	S	S	S
PSO4	M	S	S	S
PSO5	M	S	S	S

S- Strong; L- Low; M-Medium



Curriculum Framework with Choice Based Credit System (CBCS) and Syllabus for Outcome-Based Education (OBE) in Bachelor of Science (Digital & Cyber Forensic Science) degree program for the students admitted from the academic year 2022 – 23 onwards

The Choice Based Credit System (CBCS) preserves the identity, autonomy, and uniqueness of every program and reinforces its efforts to be student-centric in curriculum designing and skill imparting.

Choice Based Credit System (CBCS): Choice-based credit system (CBCS), provides a learning platform wherein the student has the flexibility to choose their course from a list of electives, core, allied, non-major courses, value-based courses, and skill-based courses. This is a student-centric approach to learning or acquiring higher education. The curriculum with CBCS aims to achieve and accomplish the student's experience in their choice of courses and credits for their horizontal and vertical mobility

For BSc (DCFS) program, a student must earn 140 credits as mentioned in the below table.



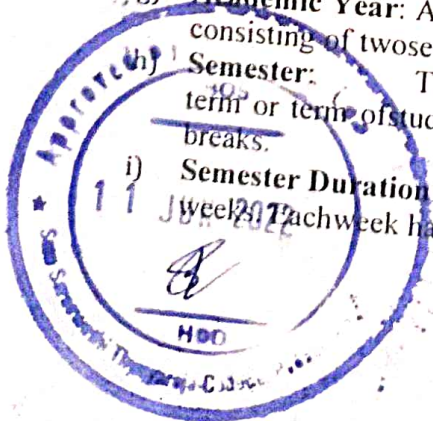
Choice-Based Credit System the Academic Program with effect from 2022-2023 onwards

The following Regulations shall be effective for the courses of study leading to the Bachelor Degree which shall be of three years duration comprising of six semesters and Master Degree which shall be of two years duration comprising of four semesters. The Regulations shall come into effect from the Academic Session, 2022-2023.

STC College follows the UGC, TANSCHÉ and Bharathiar University guidelines of CBCS pattern in framing Course Scheme and scheme of examinations for the students admitted in various UG and PG Program from the Academic year 2022-23 and onwards.

1. Definitions and codification:

- a) **CBCS:** CBCS means Choice Based Credit System. Choice Based Credit System is a flexible system of learning. This system permits students to,
 - learn at their own pace
 - choose electives from a wide range of Elective Courses offered for the Program
 - undergo additional courses and acquire more than the required number of credits
 - adopt an inter-disciplinary approach in learning
 - make the best use of the expertise of the available faculty.
- b) **Program:** The term 'program' is used to mean the whole learning experience or combination of courses in a particular field of study
- c) **Curriculum:** The term "Curriculum" indicates the various components of the Program and branch of study. The UG Curriculum under the CBCS consists of five parts and the medium of instruction is English. The PG Curriculum under the CBCS consists of only part III and the medium of instruction is English. Part four offers additional credits.
- d) **Course:** A Program is divided into a number of courses. A course is a unit of instruction or segment of subject area under any Program. The traditional concept 'paper' is replaced by 'course'.
- e) **Scheme of examination:** It denotes the course outline during the period of study or the components of the particular Program and branch of study.
- f) **Syllabus:** The subject contents of each course is referred to as "Syllabus".
- g) **Academic Year:** An academic year means a period of twelve months consisting of two semesters.
- h) **Semester:** The word "semester" is used to mean a half-yearly term or term of studies including examinations, vacations and semester breaks.
- i) **Semester Duration:** A semester normally extends over a period of 15 class weeks. Each week has 30 hours of instruction spread over the week.



- j) **CIA:** The word "CIA" is used to refer to the continuous internal assessment within the half-yearly term.
- k) **End-semester:** The word "end-semester" is used to refer to the terminal processes of examinations and evaluations at the end but within the half-yearly term.
- l) **Credit:** 'Credit' defines the quantum of contents/ syllabus prescribed for a course and determines the number of hours of instruction required per week. Thus, normally in each of the course, credits will be assigned on the basis of the number of lectures/ tutorials/ laboratory work and other forms of learning required to complete the course contents in a 14-15 week schedule:
- i) 1 Lecture = 1 Hour duration = 1 Credit
 - ii) 1 Tutorial = 1 Hour duration = 1 Credit
 - iii) 1 Practical = 2 Hours duration = 1 Credit
- Note:** The lecture sessions and tutorials shall not be substituted with any other activities like seminars, group discussions etc..
- m) **Grade point:** Grade point is the numerical weightage given to the particular course of study

2.1 Admission

The eligibility conditions and the guidelines issued by the Bharathiar University for admitting students are followed for all UG and PG Programs offered at STC.

2.2 Semester Duration:

- i) Odd Semesters: June –November
(including end-semester examinations and semester breaks)
- ii) Even Semester: December –May
(including end-semester examinations and semester breaks)

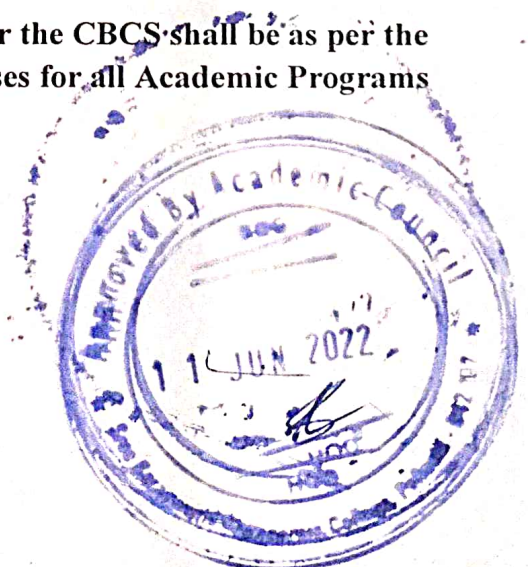
Any change in the Academic Calendar/Schedule may be made by the college whenever necessary.

2.3 Academic Schedule:

The Academic Schedule of all degree Programs under the CBCS shall be administered as per the Academic Calendar of the college published for every academic session.

3. Course Structure:

The Course Structure of the Academic Programs under the CBCS shall be as per the Course Structure given below. The nature of the Courses for all Academic Programs shall be as below:



UG Programs are conducted with a minimum total of 140 credits
Summary of UG Courses Pattern and Credit Distribution in Choice Based Credit System
as given under



Part	Curriculum Structure	No. of Courses	Credits to be earned
I	Languages	2 - 4	6 - 12
II	English	2 - 4	6 - 12
III	Core (Major) Courses	16 - 18	72 - 80
	Allied Courses	04 - 05	16 - 20
	Electives	03	12
IV	Non-Major Electives (NME)	2	04
	Value Based Courses (VBC)	2	04
	Skill Based Courses (SBC)	4	08
V	Extension Activities	1	Grade
Total			140

PG Programs are conducted with a minimum total of 90 credits

Summary of PG Courses Pattern and Credit Distribution in Choice Based Credit System as given under

Part	Curriculum Structure	No. of Courses	Credits to be earned
III	Core courses	17	74
	Electives	4	16
Total			90

MBA/MCA Program is conducted with a total of 90 credits

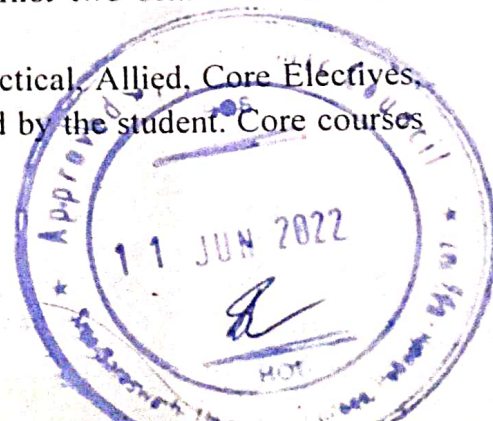
Summary of MCA Course Pattern and Credit Distribution in Choice Based Credit System as given under

Part	Curriculum Structure	No. of Courses	Credits to be earned
III	Core Courses	20	68
	Electives	03	09
	Specialization Electives	04	13
Total			90

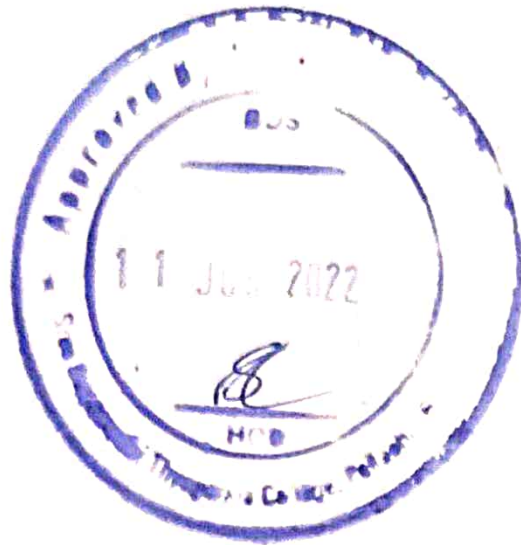
Part I: Language I : Tamil or any one of the Indian or foreign languages i.e. Malayalam, French, Hindi, Telugu and Kannada. It is mandatory for all the UG students to study a language under part I. A student can select and study any one of the languages offered under part I. The syllabus drafted would enable the students to communicate with ease and effectiveness in that language. It is offered in the first two semesters with one examination at the end of each semester.

Part II: Language II: English : The study of English is made compulsory for all UG students under part II. The subject offered during the first two semesters with one examination at the end of each semester.

Part III: A set of major papers that include Theory, Practical, Allied, Core Electives, Project and Internship in the major field of study selected by the student. Core courses



are mandatory.



Part IV:

- a) Basic Tamil/ Advanced Tamil/ NME:
- i. Students who have not studied Tamil up to XII STD and have taken any Language other than Tamil in Part I shall take Basic Tamil comprising of two offers in the third and fourth semesters.
 - ii. Students who have studied Tamil up to XII STD and have taken any Language other than Tamil in Part I shall take Advanced Tamil comprising of two Courses.
 - iii. Students who have studied Tamil up to XII STD and also have taken Tamil in Part-I shall take Non-Major Elective comprising of two Courses of NME in the third and fourth semesters. A set of non – major elective courses are offered as choices to the students, outside their major discipline. The courses other than the core and allied shall be opted by the students as Non – Major Electives.
- b) Skill Based Courses: The courses offered as skill - based courses of the Program is aimed at imparting Advanced Skills of the programme. This comprises of four courses from 3rd to 6th semesters
- c) **Value Based Courses** :Courses of cross-cutting issues relevant to the current pressing concerns both nationally and internationally such as gender, environment and sustainability, human values and professional ethics, development of creative and divergent competencies.
- d) **Massive Open Online Courses (MOOC)**: According to the guidelines of UGC, the students are encouraged to avail this option of enriching by enrolling themselves in the MOOC provided by various portals such as SWAYAM, NPTEL, and Spoken Tutorial etc. As per University Grants Commission (UGC) notification, The Massive Open Online Course (MOOC) through any online platform is compulsory. The institute is transferring the equivalent credit earned on receipt of MOOCs completion certificate and it shall incorporate these marks/credits in the overall mark sheet of the student.

3.4 Part V: Extension Activities:

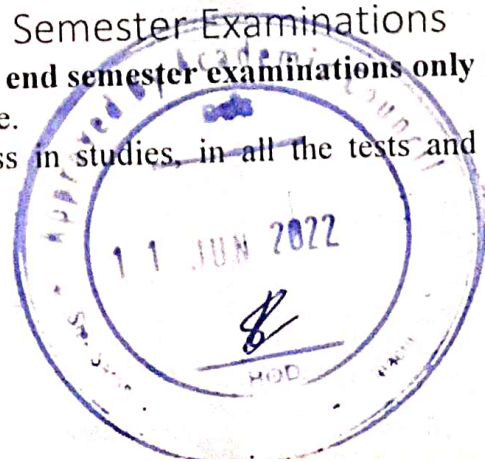
All the Students shall have to enroll compulsorily for NSS/NCC/Sports activities. The extension activities are must for each student to take part in at-least in any one of these activities for the fulfillment of the degree

The mark sheet shall carry the gradation relevant to the marks awarded to the candidates. The grades will be awarded at the end of the Fifth Semester. This grading shall be incorporated in the mark sheet to be issued at the end of the semester.

4 Attendance Eligibility to appear for the End Semester Examinations

A student will be allowed to appear for the end semester examinations only if:

1. He/She procures at least 75% of attendance.
2. He/She should show satisfactory progress in studies, in all the tests and



- examinations conducted by the college / department during the semester and secure at least reasonable minimum marks in them.
3. His/Her conduct in the college during the semester is satisfactory.



Shortage of Attendance

The following regulations will be followed for condonation and detention as well:

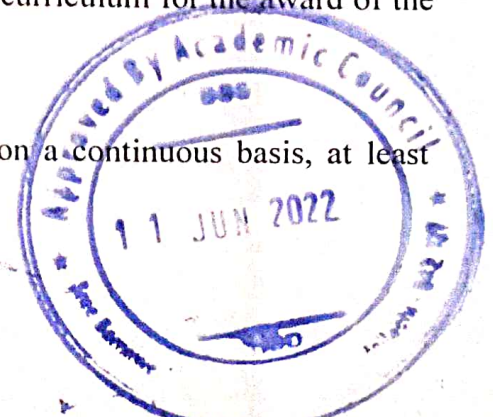
1. Candidates who earn 75% of attendance and above in the current semester are eligible to write the examinations, both arrears and regular subjects.
2. Candidates who earn attendance between 65% and 74% (both included) in the current semester are eligible to appear for the examination if the shortage of attendance is condoned by the Principal after the payment of the condonation fee prescribed by the Bharathiyar University.
3. Candidates who earn attendance between 50% and 64% (both included) in the current semester are not eligible to write examinations in the current semester subjects but are permitted to continue their studies in the next semester provided it is the first time that the candidates have earned attendance between 50% and 64% or else the candidates have to discontinue the course and rejoin in the same semester during next year with the proper approval of the Registrar, Bharathiyar University. However, these candidates are eligible to write the arrears if they have any.
4. Candidates who earn attendance below 50% are not eligible to write examinations in the current semester subjects and also have to discontinue the course and rejoin in the same semester in the next year with proper approval of the Registrar, Bharathiyar University. However, these candidates are eligible to write the arrears subjects, if any.
5. Candidates who earn attendance between 50% and 64% in the previous semester and have earned combined attendance of 75% or more by taking the average of the attendance earned in the current and the previous semesters are eligible to write semester subjects along with the current semester subjects.

5. Restrictions to appear for the examinations

- a) Any candidate having arrears paper(s) shall have to appear in all arrears paper along with the regular semester papers.
- b) "Candidates who fail in any of the course of UG degree examinations shall complete the course **within 5 years** from the date of admission and "Candidates who fail in any of the course of PG degree examinations shall complete the course **within 4 years** from the date of admission and should they fail to do so, they shall take the examination in the texts/ revised syllabus prescribed for the immediate next batch of candidates. If there is no change in the texts/syllabus they shall appear for the examination in that course with the syllabus in vogue until there is a change in the texts or syllabus. In the event of removal of the course consequent to change of regulation and / or curriculum after 4/5 year period, the candidates shall have to take up an equivalent course in the revised syllabus as suggested by the Chairman of the board of studies concerned and fulfill the requirements as per the regulation of curriculum for the award of the degree.

6. Examination and Evaluation:

- a) Examination and evaluation shall be done on a continuous basis, at least



- three times during each semester.
- b) There shall be 50% marks for internal assessment and 50% marks for End-semester examination in each course during every semester.



- c) *Internal Assessment:*
In internal assessment, different tools such as objective tests, written tests, assignments, paper presentation, laboratory work, etc. suitable to the courses may be employed.
- d) *End Semester Examinations:*
- There shall be one End semester examination carrying 50% Marks in each course of a Semester covering the entire syllabus prescribed for the Course. The End semester examination is normally a written/ laboratory-based examination/Project Work/Dissertation.
 - The Controller of Examinations shall make necessary arrangements for notifying the dates of the End semester examinations and other procedures as per rules (at least 20 days in advance) and the Academic Calendar notified by the College.
 - Normally, the End-semester examination for each course shall be of three hour duration.
- e) The Procedure for Internal Assessment and End Semester Examination is prescribed in *Annexure I*.
- f) The pattern of Question paper both the CIA and ESE is prescribed in *Annexure III*
- g) Confidential Works: Setting the question papers, scrutinizing of question papers, evaluating the answer scripts, tabulation of marks, etc. and announcement of results, shall be governed by the Controller of Examinations.
- h) The mode of conduct of the end-semester examinations of the practical/ dissertation courses shall be partially external as below:
- The end-semester examinations of all practical/ dissertation courses shall be conducted by a Board of Examiners consisting of the internal examiner (the concerned course teacher) and an external examiner appointed by the Controller of Examinations.
- i) The mode of end-semester examination and evaluation of the Course shall be specified in the detailed syllabus of the Course concerned.
- j) End-semester Practical examinations shall normally be held before the theory examinations.

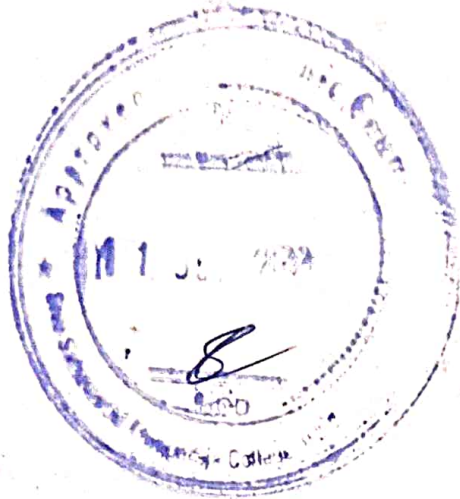
7. Malpractices in Examinations

The students, who indulge in any malpractice, while writing examination, will be directed to report to the Chief Superintendent. The chief superintendent will review and forward the case to Controller of Examinations and the COE in turn will submit the details to Malpractice Committee for the initiation of appropriate disciplinary proceedings.

8. **Improvement of Marks in the subjects already passed:** Candidates wanting of improving the marks awarded in a passed subject in their first attempt shall reappear in the subsequent semester only. The improved marks shall be considered for classification but not for ranking. When there is no improvement, there shall not be



any change in the original marks already awarded.



9.Re-Valuation

i) Photocopy of valued answer scripts: If the candidates intend to apply for the Xerox copy of their answer scripts, they have to annex the Xerox copy of their Identity Cards attested by their respective Heads of Departments, along with their application.

After receiving the photocopy, the student can verify the copy to find out whether there is any discrepancy in the total marks or omission of marking in the valuation process. If any discrepancy is noticed the same may be brought to the notice of the Controller of Examinations for remedial action.

ii) Revaluation after getting photocopy of valued answer scripts: Those candidates, who have obtained the photocopy of the answer scripts, may apply for revaluation. The valuation of the photocopy of the answer script can be verified by the course teacher and if the course teacher is convinced that the script deserves higher marks than what is awarded, he/she can recommend for applying revaluation by the subject teacher and the Head of the department. Provision available for revaluation is for theory examinations only.

10. Supplementary Exam: Candidates, who are having one course as arrears / absent after their final semester results, shall be permitted to appear for special supplementary examinations (There is no provision for revaluation or re-totalling after supplementary examinations).

11. Results and Progression:

a) A candidate shall be declared as have passed a course, provided he/ she secures-

(i) in each Course at least

UG: 40% of marks in the ESE and total marks of End Semester Examinations. PG: 50% of marks in the ESE and total marks of End Semester Examinations.

(ii) UG: at least 'C' grade in the 10 point scale combining both the in-semester and End Semester Examination performance in all the Courses separately.

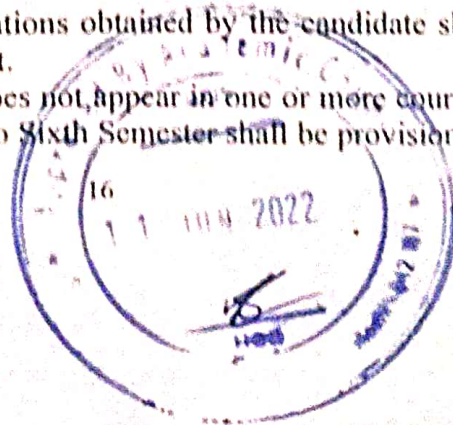
PG: at least 'B' grade in the 10 point scale combining both the in-semester and End Semester Examination performance in all the Courses separately.

(iii) There shall be no separate pass mark for Internal Assessment.

b) There may be moderation of Internal Assessment marks/End Semester marks as and when necessary.

c) The marks of CIA examinations obtained by the candidate shall be carried over for declaring any result.

d) A candidate who fails or does not appear in one or more courses of any end semester examinations up to Sixth Semester shall be provisionally promoted



to the next higher semester with the failed course as carry over course(s). Such candidates will be eligible to appear in the carry over course in the next regular examinations of those courses.

- e) The Controller of Examinations shall declare the results of the Examinations and issue Grade-sheets.
- f) The first rank holder of a Program shall be decided on the basis of the CGPA.



However, the Overall Weighted Percentage of Marks (OWPM) of a candidate shall be considered in case of tie in CGPA.

12. Grading System

The absolute grading system shall be applied in evaluating the performance of the students. The following scale of grading system shall be applied to indicate the performances of students in terms of letter grade and grade points as given below:

Conversion of Marks to Grade Points & Letter Grade :(Performance in a course/paper)

RANGE OF MARKS (In percent)	GRADE POINTS	GRADE	DESCRIPTION
90 - 100	9.0 - 10.0	O	OUTSTANDING
80 - 89	8.0 - 8.9	D+	EXCELLENT
75 - 79	7.5 - 7.9	D	DISTINCTION
70 - 74	7.0 - 7.4	A+	VERY GOOD
60 - 69	6.0 - 6.9	A	GOOD
50 - 59	5.0 - 5.9	B	AVERAGE
40 - 49	4.0 - 4.9	C#	SATISFACTORY
00 - 39	0.0	U	RE-APPEAR
ABSENT	0.0	U	ABSENT

Reappearance is necessary for those who score below 50% Marks in PG **; Reappearance is necessary for those who score below 40% Marks in UG*; # only applicable for UG programs

Grade Point Average (GPA):

Grade point average (GPA) is calculated for each part taking into account of all the courses studied under each part. Calculation of grade point average semester -wise and part -wise is as follows:

Sum of the multiplication of grade points by the credits

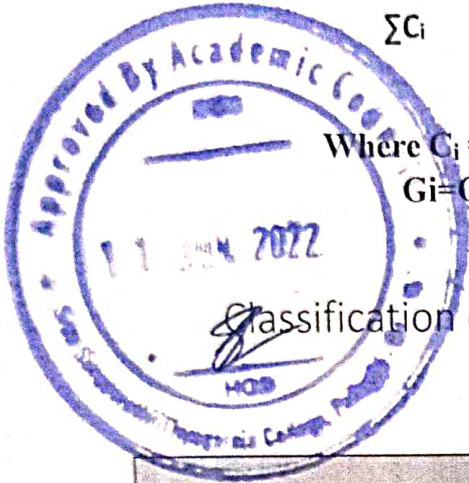
of the courses GPA =

Sum of the credits of the courses in a semester



$$\text{GPA} = \frac{\sum(C_i G_i)}{\sum C_i}$$

Where C_i = Credit earned for course i in any semester.
 G_i = Grade points obtained for course i in any semester.



Classification of Successful Candidates (Overall):

CGPA	GRADE	CLASSIFICATION OF FINAL RESULT
9.5 to 10.0	O+	First Class - Exemplary *
9.0 and above but below 9.5	O	
8.5 and above but below 9.0	D++	First Class with Distinction *
8.0 and above but below 8.5	D+	
7.5 and above but below 8.0	D	
7.0 and above but below 7.5	A++	First Class
6.5 and above but below 7.0	A+	
6.0 and above but below 6.5	A	
5.5 and above but below 6.0	B+	Second Class
5.0 and above but below 5.5	B	
4.5 and above but below 5.0	C+ #	Third Class
4.0 and above but below 4.5	C #	
0.0 and above but below 4.0	U	Re-appear

“*” The candidates who have passed in the first appearance and within the prescribed semester of the Program (Major, Allied, Inter Departmental and Elective Course alone) are eligible.

“#” Only applicable to U.G. Program

Cumulative Grade Point Average (CGPA) :For the entire program CGPA is calculated in the following manner:

Sum of the multiplication of grade points by the credits of the courses of entire Program under each part

CGPA =

Sum of the Credits of the Courses of the entire Program under each part

$$\text{CGPA} = \frac{\sum_{n} \sum_{i} C_{ni} G_{ni}}{\sum_{n} \sum_{i} C_{ni}}$$

In order to get through the examination, each student has to earn the minimum marks prescribed in the internal (wherever applicable) and external examinations in each of the theory course, practical course and project viva. Normally, the ratio between internal and external marks is 50:50. There is no passing minimum for internal component. The following are the minimum percentage and marks for passing of each course, at UG and PG levels for external and aggregate is as follows:

S.No	Program	Passing Minimum in Percent	
		External (50)	Aggregate (100)
1	UG Degree	40% (20)	40% (40)
2	PG Degree	50% (25)	50% (50)



13. **Ranking:** Rank holders of a Program shall be decided on the basis of the CGPA. A candidate who qualifies the UG degree course passing all the examinations in the first attempt within the minimum period of prescribed for the course of study from the date of



admission to the course and secures I or II class shall be eligible for ranking and such ranking shall be confined to 10 % of the total number of candidates qualified in that particular branch of study, subject to a maximum of 10 ranks. Results of the candidates appeared in the improvement or Arrears Examinations shall not be counted for the award of Prizes/Medals, Rank or Distinction.

14. Rules for Admission on Transfer from other Colleges:

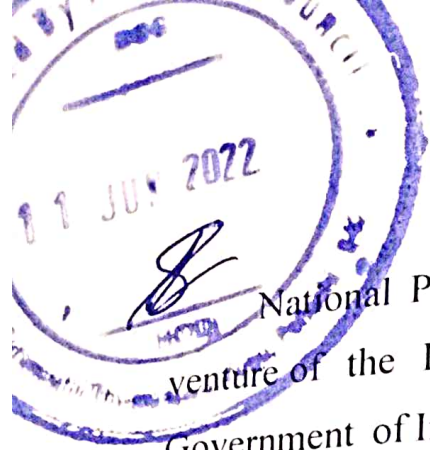
- (a) Under Bharathiyar University guidelines, the admission on transfer of students from other institutions shall be allowed. However, such transfer shall be permissible provided that-
- i. there is a vacancy in the respective program of study in the Institution where the transfer is requested
 - ii. both the institutions conduct the same degree Programs under the CBCS.
 - iii. the course structure along with the nomenclature of the courses are similar between the two institutions.
- (b) In fulfillment of the conditions as laid down in clause 13(a), a candidate may be allowed to get admission on transfer from other college on the production of transfer certificate from Bharathiyar University, Previous semester mark statements, , etc. not later than 1 (one) month from the commencement of the classes of the semester concerned.
- i. The marks obtained in the courses will be converted and grades will be assigned as per the STC norms.
 - ii. The transfer students are eligible for classification.
 - iii. The transfer students are not eligible for Ranking, Prizes and Medals

15. Conferment of the Degree: No candidate shall be eligible for conferment of the Degree unless he / she

- i. has undergone the prescribed course of study for a period of not less than six semesters and has passed the examinations as have been prescribed therefor.
- ii. has completed all the components prescribed under Parts I to Part V in the CBCS pattern to earn 140 credits.
- iii. has successfully completed the prescribed Field Work/ Institutional Training (if any) as evidenced by certificate issued by the authorities concerned.



REGULATIONS ON MOOC PREAMBLE



National Program on Technology Enhanced Learning (NPTEL) is a joint venture of the IITs and IISc, funded by the Ministry of Education (MoE) Government of India, and was launched in 2003. Initially started as a project to take quality education to all corners of the country, NPTEL now offers courses for certification every semester in almost all the disciplines. NPTEL is a National Coordinator for Engineering courses (UG and PG) under SWAYAM, the National MOOCs portal. NPTEL also offers courses in Humanities and Management subjects as the NPTEL partner institutes do have these departments. It offers the courses in online mode which is instructor-lead and self-paced learning environment.

Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM) has emerged as one of the World's biggest Massive Open Online Courses (MOOCs) integrated platform of online courses, covering subjects from high school to higher education including Skill-based courses to ensure that every student benefits from learning material through ICT. There are a total number of 7,041 online courses on SWAYAM platform out of which 6,296 courses are credit courses and the remaining 745 courses are non-credit courses. University Grants Commission (UGC) vide Gazette Notification dated 25th March, 2021 has notified in the UGC (Credit Framework for online Learning courses through SWAYAM) Regulations, 2021 which facilitates an Institution to allow up to 40% of the total courses being offered by any higher education institution in a particular Program in any semester through online learning courses offered on SWAYAM platform. With this, the students studying in conventional Institutes / colleges can transfer the credits earned through the SWAYAM Courses into their academic records.

Sree Saraswathi Thyagaraja College, Pollachi is continuously taking part in promoting quality education as a higher education institution. The faculty members of the institution are also encouraged to complete the course in SWAYAM portal. With reference to the UGC notification, it has framed the regulations for credit

transfer in order to encourage the students to undergo and learn the courses through NPTEL-SWAYAM portal.

The following MOOCs regulations would come into the force for the students admitted in the year 2022-23 and onwards.



- All Under Graduate (UG) and Post Graduate (PG) students are encouraged to complete two MOOCs [SWAYAM/NPTEL/NSDC] in their UG before completing the fifth semester and likewise two MOOCs [SWAYAM/NPTEL/NSDC] in PG before completing the third semester.
- The MOOCs, selected by the student from SWAYAM /NPTEL/NSDC, should not be a course that have been already given in their respective curriculum/syllabus.

The UG & PG students who do not have entrepreneurship related course in their syllabus should choose one MOOC related to entrepreneurship out of two MOOCs;

The institute is transferring the equivalent credit earned through [SWAYAM/NPTEL/NSDC] to the students on receipt of MOOCs completion certificate and these marks/credits shall be incorporated under extra credit course in the overall marksheet of the student.

- The institution will allot a Single Point of Contact (SPoC) who will provide the list of courses offered in the NPTEL/SWAYAM/NSDC platform in the First / Second / Third

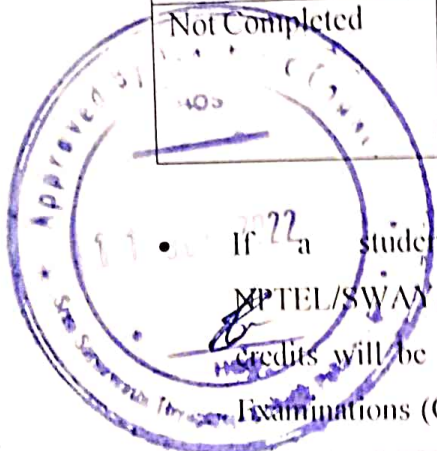
/ Fourth / Fifth semester for UG and similarly the list of courses offered in the NPTEL/SWAYAM/NSDC platform in the First / Second / Third semester for PG.

- A mentor will be allotted based on the domain areas of the students to guide, assist and track the status of progress.
- As per the guidelines provided by the Academic Council, an 8 weeks course can be considered for 2 credit course and a 12 weeks course can be considered for 3 credit course.
- Based on this, the student should complete 2 MOOCs [each of 8 weeks duration] and earn in a total of 4 credits [2 credits per MOOC].
- The actual marks scored by the student will be taken as it is, in order to incorporate the score in the mark statement, if he/she successfully obtained the certification through MOOC.
- The following table describes the certification grade, equivalent marks and

the further step(s) required for the student:



Assignment Status	Certification Status	Equivalent Mark	Further Step
Submitted	Elite+Gold	Actual Score by NPTEL	Not required
Submitted	Elite+Silver	Actual Score by NPTEL	Not required
Submitted	Elite	Actual Score by NPTEL	Not required
Submitted	Completed	Actual Score by NPTEL	Not required
Submitted	Not Completed	50% of the assignment Score + 50% of the score from the test conducted by the Institute	The student should attend the test in the institute
Not Completed	Not obtained	The actual score secured in the test conducted by the institute	The student should attend the test in the institute



• If a student has successfully completed the course in NPTEL/SWAYAM/NSDC, then the marks obtained and the appropriate credits will be informed by the SPoC to the Office of the Controller of Examinations (CoE). The marks and its corresponding grade may change as per the CBCS guidelines and regulations of the corresponding Program.

- If any student opts for more than the required number of MOOC, it will be considered as additional credit, and it will not be considered for calculating the CGPA.
- If the student fails in the MOOC examination or the student did not appear for the MOOC examination, there is an **alternative option** for the student to complete the MOOC through the examination conducted by the college similar to that of MOOCs;
- In such case, the student needs to pay the MOOC exam fee at the college and he will be allowed to take up a 100 MCQ test at the college lab; the results of this online test will be taken up by the CoE section for the completion of MOOC.

Sree Saraswathi Thyagaraja College Pollachi
Department of Digital And Cyber Forensic Science – UG

Credit Distribution and Scheme of Examination

Part	Curriculum Structure	No. of Courses	Credits
I	Languages	2	6
II	Professional English	2	6
II	Core Courses	23	84
	Allied Courses	4	16
	Elective Courses	3	12
III	Skill Based Courses	4	8
	Non Major Elective	2	4
	Value Based Courses	2	4
	Extra Credit Courses (2 Professional English & 2 MOOC & 4 PLACEMENT)	8	14*
	IV	NSS/NCC/SPORTS	GRADE
TOTAL		41+8*	140+14*

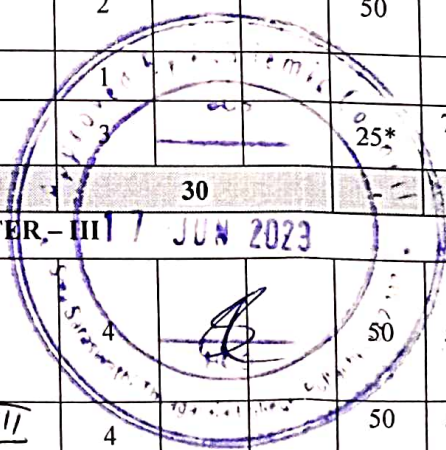
PART	TYPE OF COURSE	COURSE CODE	NAME OF THE COURSE	INS.HR			CIA	ESE	TOT	CR	
				L	P	T					
SEMESTER – I											
I	Language-1	Theory	XXXX	Language-I (Tamil/Malayalam/Hindi/French)	4			50	50	100	3
II	English	Theory	XXXX	Communicative English – I	3			50	50	100	3
III	Core 1	Theory	22BFS1C10	Basics of Cyber Security	3		1	50	50	100	4
III	Core 2	Theory	22BFS1C20	Programming in C	4		1	50	50	100	5
III	Core 3	Practical	22BFS1C30	Programming in C Lab		4		50	50	100	4
III	Allied1	Theory	22BMAGAM0	Fundamentals of Statistics	5			50	50	100	4
IV	VBC1	Theory	22DHE1V10	Environmental Studies	2			50	-	50	2
	ECC-1	Theory	22GEN1Z10	Professional English I	3			25*	75*	100*	3*



**Scheme of Examination (Student admitted from 2022-23 and onwards)
For 2023-24 BOS**

PART	TYPE OF COURSE	COURSE CODE	NAME OF THE COURSE	INS.HR			CIA	ESE	TOT	CR	
				L	P	T					
SEMESTER – I											
I	Language-1	Theory	22TAMIL10	Language-I (Tamil/Malayalam/Hindi/French)	4			50	50	100	3
II	English	Theory	22GEN110	Communicative English – I	3			50	50	100	3
III	Core 1	Theory	22BFS1C10	Basics of Cyber Security	3		1	50	50	100	4
III	Core 2	Theory	22BFS1C20	Programming in C	4		1	50	50	100	.5
III	Core 3	Practical	22BFS1C30	Programming in C Lab		4		50	50	100	4
II	Allied1	Theory	22BMAGAM0	Fundamentals of Statistics	5			50	50	100	4
IV	VBC1	Theory	22DHE1V10	Environmental Studies	2			50	-	50	2
	ECC-1	Theory	22GEN1Z10	Professional English I	3			25*	75*	100*	3*
Total for Semester – I					30			-	-	750	25+3*
SEMESTER – II											
I	Language - 2	Theory	22TAM2L20 22MAL2L20 22HIN2L20 22FRE2L20	Language-II (Tamil/Malayalam/Hindi/French)	4			50	50	100	3
II	English	Theory	22GEN2L20	Communicative English – II	3			50	50	100	3
III	Core 4	Theory	22BFS2C10	Introduction to Cyber Forensics	4			50	50	100	4
III	Core 5	Theory	22BFS2C20	Java with Data Structures	4			50	50	100	4
III	Core 6	Practical	22BFS2C30	JAVA programming LAB		4		50	50	100	2
III	Allied2	Theory	22BMAGAJ0	Discrete Structures and Applications	5			50	50	100	4
IV	VBC2	Theory	22DHE2V20	Value Education and Human Rights	2			50	-	50	2
				Placement							1*
	ECC-2	Theory	22GEN2Z10	Professional English II	3			25*	75*	100*	3*
Total for Semester – II					30			-	-	750	22+4*
SEMESTER – III											
	Language III	Theory	21TAM3L30/ 21HIN3L30/ 21FRE3L30/ 21MAL3L30	Language-III (Tamil/Malayalam/Hindi/French)	4			50	50	100	3
	Communicative English		22GEN3L30	English paper - III	4			50	50	100	3
III	Core7	Theory	23BFS3C10	Operating System and Networks	4			50	50	100	3

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III	Core8	Theory	22BFS3C21	Python Programming for penetration testing	3			50	50	100	2
III	Core9	Practical	23BFS3C30	Python Programming and Linux Lab		4		50	50	100	2
III	Allied3	Theory	23BFS3A10	Allied - 3	4			50	50	100	2
IV	SBC1	Theory	23BFS3S20 23BFS3S20	Cryptography [23BFS3S20]	3			50	50	100	2
IV	NME1	Theory	-	NME Course - 1	2			30	45	75	2
				Placement	2						1*
Total for Semester - III					30			-	-	625	22+3*

SEMESTER - IV

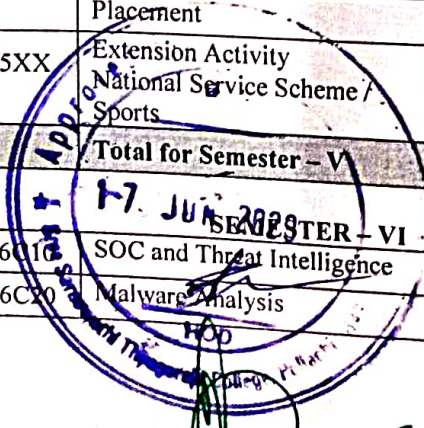
	Language III	Theory	21TAM4L40/ 21HIN4L40/ 21FRE4L40/ 21MAL4L40	Language-IV (Tamil/Malayalam/Hindi/ French)	3						3
	Communicative English		22GEN4L40	English through Literature	3						3
III	Core11	Theory	22BFS4C10	Ethical Hacking	3	2		50	50	100	4
III	Core12	Theory	22BFS4C20	Cyber Forensic	4			50	50	100	3
III	Core13	Practical	22BFS4C40	Cyber Forensic Lab		4		50	50	100	2
III	Allied4	Theory	21BSPY4A0 21BSPY4A0	Allied - 4- PSY of Criminal	3			50	50	100	2
IV	SBC2	Theory	23BFS420 23BFS420	Cyber Law	3			30	45	75	2
IV	NME2	Theory	-	NME Course - 2	2			-	50	50	2
				Placement	2						1*
				NPTL			1				2*
Total for Semester - IV					30			-	-	625	23+3*

SEMESTER - V

III	Core15	Theory	22BFS5C10	Vulnerability Assessment and Penetration Testing	4		1	50	50	100	4
III	Core16	Practical	22BFS5C20	Vulnerability Assessment and Penetration Testing Lab		4		50	50	100	3
III	Core17	Theory	22BFS5C30	Mobile Forensics	3	1		50	50	100	4
III	Core18	Theory	22BFS5C40	Network Security	4			50	50	100	4
III	Core19	Project	22BFS5C50	Project Work Lab		4		50	50	100	3
III	CE1	Theory	-	Core Elective - 1	4			50	50	100	4
IV	SBC3	Theory	22BFS5S30	Wireless Audit and Forensic Investigation	3			30	45	75	2
				Placement	2						1*
V	EAC		22ETN5XX X	Extension Activity National Service Scheme / Sports	GRADE						
Total for Semester - V					30			-	-	675	23+1*

SEMESTER - VI

III	Core20	Theory	22BFS6C10	SOC and Threat Intelligence	5			50	50	100	4
III	Core21	Theory	22BFS6C20	Malware Analysis	4			50	50	100	4



III	Core22	Practical	23BFS6C30	PRDE	4		50	50	100	4
III	Core23	Practical	22BFS6C40	Main Project		4	50	50	100	4
III	CE2	Theory	-	Elective – 2		4	50	50	100	3
III	CE3	Theory	-	Elective – 3	2	2	50	50	100	4
IV	SBC4	Theory	22BFS4A50	Malware Analysis Lab		4	30	45	75	2
			22BFS6S10	Total for Semester – VI		30	-	-	675	25
				Total						
	ECC*			Professional English (2 courses)	-		-	-	-	6
	ECC		-	MOOC (2 courses)	-		-	-	-	4
				Grand Total	180				3900+ 200*	140+ 14*

\$ INS.HR = Instructional Hours

List of Allied Courses (CBCS)

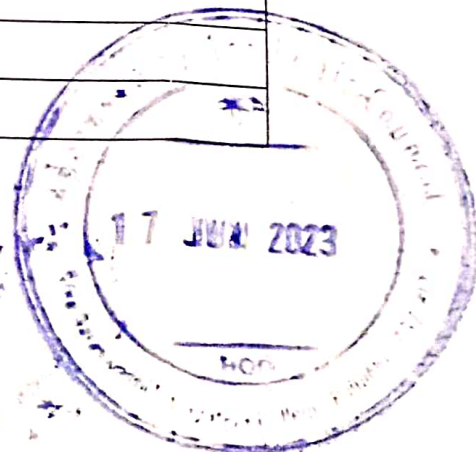
S.No	Semester	Type of course	Course Code	Course Name
Allied – I				
1	I	Theory	19BMAGAI0	Fundamentals of Statistics
Allied – II				
1	II	Theory	19BMAGAJ0	Discrete Structures and Applications
Allied – III				
1	III	Theory	22BFS3A10	Risk assessment and Security Audit
Allied – IV				
1	IV	Theory	21BPI4A10	Psychology of Criminal Behavior

Electives of B.Sc(DCFS)

1	V	I	Theory	22BFS5EA0	Cyber Attack and Cyber Warfare
2	VI	II	Theory	22BFS6EA0	SOC Lab
3	VI	III	Theory	22BFS6EB0	Cloud Security and forensics

NME Offered by B.Sc(DCFS) for other departments

Theory	22BFS3N10	Principles of Computer Security
Theory	22BFS4N10	Cyber forensics
Theory	22BFS3N20	Internet Security
Theory	22BFS4N20	Cyberlaw



1	II	Theory	19BMAGA10	Discrete Structures and Applications
Allied – III				
1	III	Theory	22BFS3A10	AI in Cyber Security and Forensics
Allied – IV				
1	IV	Theory	21BPY6EB1	Psychology of Criminal Behavior

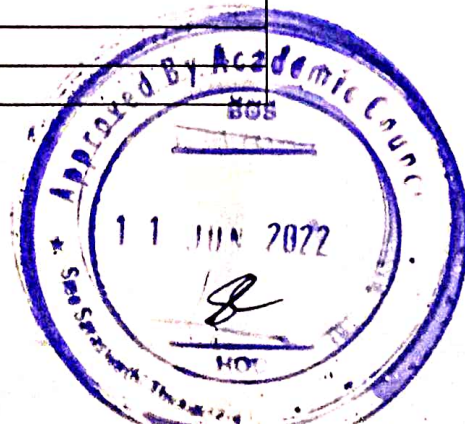
Electives of B.Sc (DCFS)					
1	V	I	Theory	22BFS5EA0	Cyber Attack and Cyber Warfare
2	VI	II	Theory	22BFS6EA0	Protecting Critical Infrastructure
3	VI	III	Theory	22BFS6EB0	Cloud Security and forensics

NME Offered by B.Sc(DCFS) for other departments		
Theory	22BFS3N10	Principles of Computer Security
Theory	22BFS4N10	Cyber forensics
Theory	22BFS3N20	Internet Security
Theory	22BFS4N20	Cyberlaw



LIST OF VARIOUS NME COURSES OFFERED BY ALL UG DEPARTMENTS

S.No	NME Course Code	NME Course Names
1.	22BMA3N10	Numerical Ability - I
	22BMA3N20	Verbal Reasoning
	22BMA4N10	Numerical Ability - II
	22BMA4N20	Non-Verbal Reasoning
2.	22BCS3N10	Internet Programming- Lab 1
	22BCS3N20	Animation Technique- Lab 1(Flash)
	22BCS4N10	Basic Programming in C
	22BCS4N20	Animation Techniques- Lab (3ds- Max)
3.	22BIT3N10	OfficeAutomation forDocumentationLab
	22BIT3N20	MultimediaLab
	22BIT4N10	OfficeAutomationLab
	22BIT4N20	MultimediaLab
4.	22BCA3N10	Basics of Excel
	22BCA3N20	Digital Publishing Tools-I
	22BCA4N10	Advances in Excel
	22BCA4N20	Digital Publishing Tools-II
5.	22BFS3N10	Principles of Computer Security
	22BFS3N20	Cyber forensics
	22BFS4N10	Information Security
	22BFS4N20	Cyberlaw
6.	22BDA3N10	Data Visualization using Tableau - I
	22BDA3N20	R Programming for Beginners - I
	22BDA4N10	Data Visualization using Tableau - II
	22BDA4N20	R Programming for Beginners - II
7.	22BAM3N10	Basic Python Programming
	22BAM3N20	Basic Power BI Lab
	22BAM4N10	Advance Python Programming Lab
	22BAM4N20	Advanced Power BI Lab
8.	22BCH3N10	Chemistry in everyday life -1
	22BCH4N20	Chemistry for everyday life -II
9.	22BPY3N10	PSYLIFESKILLS
	22BPY3N20	Interpersonal Relationship skills
	22BPY4N10	PsyLife Hacks
	22BPY4N20	Problem solving and creativity
10.	22BEN3N10	Writing Skills for Media
	22BEN4N10	Professional and Technical Writing
11.	22BCM3N10	Entrepreneurship
	22BCM4N20	Practical Banking
12.	22BBC3N10	Accounting Software-I
	22BBC4N20	Accounting Software-II
13.	22BPA3N10	Personal Finance



	22BPA4N20	Basics of Stock Market
14.	22BAB3N10	Agricultural Marketing
	22BAB4N10	Digital Marketing
15.	22BBI3N10	Digital Banking
	22BBI4N20	Elements of Insurance
16.	22BAS3N10	Information Security
	22BAS4N20	Office Administration
17.	22BBA3N10	Management Concepts
	22BBA4N10	Training and development
18.	22TAM3N10	Basic Tamil I
	22TAM3N20	Advanced Tamil I
	22TAM4N10	Basic Tamil II
	22TAM4N20	Advanced Tamil II

