



**SCHOOL OF ENGINEERING AND TECHNOLOGY  
SRI PADMAVATI MAHILA VISVA VIDYALAYAM  
TIRUPATI – 517 502**

**BTH Dual Engineering Programme (CBCS) Regulations-2016**

(3 years at School of Engineering and Technology, SPMVV and 1 year at BTH, SWEDEN)

(To come into effect from the batch admitted in academic year 2016-2017)

**CHOICE-BASED CREDIT SYSTEM (CBCS)**

Regulations comprises 2 parts

**PART – I:** Regulations for first three years of study at School of Engineering and Technology, SPMVV

**PART – II:** Regulations for final year study at BTH (BLEKINGE TEKNISKA HÖGSKOLA), Sweden

**PART – I**

**REGULATIONS FOR FIRST THREE YEARS OF STUDY AT SCHOOL OF  
ENGINEERING AND TECHNOLOGY, SPMVV**

**1. PREAMBLE**

BTH dual engineering programme offered by the School of Engineering and Technology has duration of four academic years with each academic year being divided into two consecutive semesters. The academic year starts usually in June/July of every year with an odd semester followed by an even semester in December/January. In this programme, students will study three years at School of Engineering and Technology, SPMVV, Tirupati and one year at Blekinge Institute of Technology (BTH), Sweden. Choice-Based Credit System (CBCS) is a flexible system of learning and enables students choose elective courses from a large pool of prescribed elective courses. The electives prescribed may be from the department offering the programme or from other departments. For every course, learning objectives and learning outcomes are defined following a systematic procedure. A course comprises of lectures/tutorials/laboratory work/field work/project work/viva/seminars/assignments/presentations/self-study, etc. or a combination of some of these. Under the CBCS, every course has certain weight defined in terms of the number of credits. The requirement for awarding a degree is prescribed in terms of number of credits to be completed by the students.

**2. MINIMUM QUALIFICATION FOR ADMISSION INTO BTH DUAL ENGINEERING PROGRAMME**

A pass in intermediate examination conducted by the Board of Intermediate Examination of Andhra Pradesh with Mathematics, Physics and Chemistry as compulsory subjects or any equivalent examination recognized by Sri Padmavati Mahila Visva Vidyalayam and obtained at least 45% marks (40% in case of SC/ST Students) in the above subjects taken together.

Dr. A. Ramakrishna Rao  
Director, SE&T

### 3. BRANCHES OF STUDY

The branches of study in BTH dual engineering programme currently offered are:

- Computer Science and Engineering (Code: 71)
- Electronics and Communication Engineering (Code: 72)
- Mechanical Engineering (Code: 76)

First three years of study at SPMVV is common with regular B.Tech programmes. The regulations, course structure and syllabi are common for both regular and BTH dual engineering programmes.

For continuity, the regulations of regular B.Tech programme are as given below.

### 4. SEMESTER

Generally, each semester shall consist of 18 weeks with a typical academic work of 30 hours/week, equivalent to 90 actual instruction days. However, instructional days may be reduced up to 72 per semester with increased instructional hours per week, if required.

### 5. CREDIT DEFINITION

It is a unit by which the course work is measured. It determines the number of hours of instructions required per week per semester. The following definitions are adopted:

<b>Lecture/Tutorial</b>	-	<b>1 hour/week</b>	=	<b>1 Credit</b>
<b>Practicals</b>	-	<b>2 hours/week</b>	=	<b>1 Credit</b>

6. A Course comprises of one or more credits depending on the quantum of syllabus to be covered in the course. A BTH dual engineering programme comprises of basic courses (basic sciences and engineering sciences), core courses and elective courses during the study at School of Engineering and Technology, SPMVV, Tirupati and obligatory courses and elective courses during the study at BTH, Sweden.

### 7. COURSE REGISTRATION

Every student has to register for the set of Courses offered by the Department in that Semester including those of elective course offered by the other Departments with the total number of their Credits being limited by considering the permissible weekly contact hours (typically:30/Week).

### 8. PROGRAMME STUDY METHODOLOGY AND CREDITS REQUIRED FOR THE AWARD OF DEGREE

A student admitted under BTH programme should study the fourth year at BTH, Sweden only. Under no circumstances, a student will be permitted to study the fourth year at SE&T, SPMVV, Tirupati. A student shall become eligible for the award of BTH dual engineering programme, if the student earns a minimum of 154 credits by passing all the basic, core and elective courses along with practicals prescribed during first three years of B. Tech programme at School of Engineering

and Technology, SPMVV, Tirupati and 60 BTH credits during one year study at BTH, Sweden equivalent to 40 SPMVV credits by passing compulsory and elective courses as prescribed. A student shall be permitted to pursue fourth year of study at BTH, Sweden only after fulfilling the requirements in her three years of study as stipulated in the respective branch at School of Engineering and Technology, SPMVV, Tirupati. SPMVV awards B.Tech degree in the respective branch under the programme only after successful completion of fourth year of study and obtaining BS degree at BTH, Sweden.

- 8.1.** It is mandatory for a student to complete successfully all the basic and core courses pertaining to her branch of study.
- 8.2.** The student shall pass all the courses and has no backlogs in first three years of study at SPMVV and final year study at BTH, Sweden.
- 8.3.** A student shall choose elective courses from the list of elective courses prescribed by the department pertaining to her branch of study. Further, she may choose elective courses offered by other engineering departments.
- 8.4.** Every student is required to take certain minimum number of electives.

## **9. SCHEME OF INSTRUCTION**

The various courses to be studied semester wise and the corresponding syllabus along with the credits are indicated in the scheme of instruction.

- 9.1.** The Joint-Board of Studies (JBoS) shall formulate the scheme of instruction and examinations, and detailed syllabi for the first and second semesters for all the branches of study.
- 9.2.** The Pass Board of Studies (PBoS) of each Department shall formulate the scheme of instruction and examinations, and detailed syllabi for the subsequent six semesters of B.Tech Programme taking into account of the credits offered in the first and second semesters.
- 9.3.** The detailed syllabus of each theory course shall be organized into five units of equal weight.

## **10. COURSE CODING SCHEME**

Each course code is denoted by five alpha-numerals.

Code of the department offering the Course	CS: Computer Science and Engineering EC: Electronics and Communication Engineering EE: Electrical and Electronics Engineering ME: Mechanical Engineering BSH: Basic Sciences and Humanities
Nature of course	T: Theory P: Practical
Course Number	01, 02, ...

## 11. STRUCTURE OF CURRICULUM

Curriculum should consist of a good mix of Basic, Core and Elective courses. The break-up of various types of courses and percentage of credits offered at School of Engineering and Technology, SPMVV are shown in the below table.

S.No	Broad Course Classification	Course Group/Category	Course Description	Range of Credits
1	Basic Courses (BC)	BS-Basic Sciences	Include-Mathematics, Physics, Chemistry courses	48%
2		ES-Engineering Sciences	Include Fundamental engineering courses	
3		HS-Humanities, Social Sciences and Management	Include courses related to Humanities, Social Sciences and Management	
4	Core Courses (CoC)	PC-Professional Core	Include core courses related to the concerned Department /Branch of Engineering.	48%
5	Elective Courses (EIC)	PE-Professional Electives	Include Elective courses related to the concerned Department /Branch of Engineering.	3.8%
6	Projects Related Courses (PW)	Project Work	B.Tech project or UG Project	-
Total Credits for UG (B.Tech) Programme during 3 years of study at SPMVV				154

Practicals include Laboratory/Drawing/Workshop practice/Seminars/Project Work

Theory Courses	70% – 80%
Practical Courses	20% - 30%

## 12. DURATION OF THE PROGRAMME

Minimum duration for the completion of the programme is 4 years and the maximum duration is 8 years.

## 13. ATTENDANCE REQUIREMENTS

- 13.1.** A student is required to complete the study of B.Tech Programme satisfying the attendance requirements in all the semesters within a period of eight academic years from the year of admission to become eligible for the award of B.Tech degree failing which she forfeits her seat.
- 13.2.** Normally a student should put in 100% of attendance. However, relaxation may be given up to 25% for attending to personal needs/co-curricular activities (Seminars/Conferences/workshops/hackathon, etc.) and extra-curricular activities (Sports/games /NCC/NSS, etc.)

- 13.3.** A student shall be detained in a semester if she fails to satisfy the attendance requirements as given below.
- 13.3.1.** A student shall attend at least 75 percent of the hours of instruction taken for all the courses put together in that Semester.
- 13.3.2.** A student shall attend at least 50 percent of the hours of instruction for each course.
- 13.4.** The principal shall condone the shortage of attendance (for reasons beyond the control of the student, Example: Health reasons) provided she satisfies the clause 13.3.2 and obtains at least 60% of overall attendance for all the courses put together in that semester.
- 13.5.** A student who fails to satisfy the attendance requirements specified in clauses 13.3 and 13.4 will be detained and she shall repeat that semester in the subsequent academic years with the written Permission of the Principal subject to the clause 13.1. A Student will not be promoted to the next semester /Year if she is detained in a semester.
- 13.6.** A student shall not be permitted to study any semester more than three times during the entire programme of study.
- 13.7.** A student who satisfies the attendance requirements specified in either of the clauses 13.3 and 13.4 in any semester may be permitted to repeat that semester by cancelling the previous attendance and sessional marks of that semester with the written permission of the Principal. However, this facility shall not be extended to any student more than twice during the entire programme of study as specified in clause 13.1.
- 13.8.** Gap year(s) shall be over and above maximum period of eight academic years (see clause 18).
- 13.9.** Maternity leave shall be granted only once during the entire programme. Such candidates have to put-up a minimum of 45% attendance course-wise and a minimum aggregate of 45%.

## **14. EVALUATION**

- 14.1.** Evaluation for theory courses shall be done on a continuous basis i.e. through Continuous Internal Evaluation (CIE) in the Semester and Semester End Examination (SEE).
- 14.1.1.** Continuous internal evaluation comprises two sessional tests of two hours duration each and at least two assignments. It is mandatory for a student to attend both the sessional tests in each theory course.
- 14.1.1.1. Sessional Test I shall be held in the middle of the semester i.e. after the completion of 50% of actual instruction days and generally after completing 50% of the syllabus. Sessional Test I will be for 25 marks and 5 marks for first assignment.
- 14.1.1.2. Sessional Test II shall be held immediately after the completion of instructional days. Sessional Test II will be for 25 marks and 5 marks for second assignment.
- 14.1.2.** Sessional marks for a maximum of 30 shall be awarded based on the performance of the two sessional tests and two assignments. If a student is absent for any of the internal test/assignment for whatsoever reason, the marks for that test/assignment shall be zero. The sessional marks calculation procedure is shown in Table 1.

**Table 1: Sessional marks calculation procedure**

Sessional – I (30 Marks)		Sessional – II (30 Marks)		Internals (30 Marks)
Test (25 Marks)	Assignment (5 Marks)	Test (25 Marks)	Assignment (5 Marks)	$0.8 * (\max(\text{Sessional – I, Sessional – II})) + 0.2 * (\min(\text{Sessional – I, Sessional – II}))$

- 14.1.3.** The Semester end examination shall be conducted by the controller of Examinations. The Semester End Examination will be for 3 hours duration carrying 70 marks which will be conducted by the university. Each external theory paper will have a maximum of 70 marks. A student has to obtain a minimum of 35% i.e., 25 marks out of 70 marks to pass that examination. Also, the student has to obtain a minimum of 40 marks out of 100 (**University examination + sessional marks** put together) to pass in the corresponding paper.
- 14.2.** For each practical course except project work, the sessional marks for a maximum of 40 shall be awarded by the teacher concerned based on the continuous assessment of practical work followed by an internal practical examination. The continuous assessment will be for 20 marks and internal practical examination will be for 20 marks.
- 14.3.** A Semester End Examination in each Practical course shall be conducted after the last working day of the semester covering the entire syllabus prescribed for that course.
- 14.3.1.** A Semester End Examination of 3 hours duration carrying 60 marks will be conducted by the university.
- 14.3.2.** The examination shall be held by two teachers: one external examiner and one internal examiner appointed by the Principal. The principal shall appoint the internal examiner nominated by the Head of the Department (HoD) concerned. The Principal shall appoint the external examiner from among the panel of examiners recommended by the BoS, Chairman concerned. The panel of examiners shall be approved by the university.
- 14.3.3.** A student has to obtain a minimum of 35% i.e., 21 marks out of 60 marks to pass that examination. Also, the student has to obtain a minimum of 40 Marks out of 100 (**University examination + sessional marks** put together) to pass in the corresponding paper.
- 14.4.** The students shall be permitted to verify the evaluated answer scripts of Sessional tests only.
- 14.5.** The evaluation and verification of answer scripts of Sessional Tests shall be completed within a week after the conduct of the Sessional Tests.
- 14.6.** The evaluation of Semester End Examination answer scripts shall be arranged by the Controller of Examinations as per the University procedures in vogue.

## **15. QUESTION PAPER SETTING**

- 15.1.** All the question papers setting, both for sessional tests and semester end examination shall be generally based on Bloom's Taxonomy.
- 15.2.** Model Question Paper for each theory course shall be prepared by the teacher within 30 days from the commencement of the Semester and the same shall be forwarded to the Controller of Examinations through the BOS, Chairman, concerned.

**15.3.** For each theory course, the question paper shall be set by an external paper setter. The BOS, Chairman, shall recommend a panel comprising at least six external paper setters for each theory course to the University. The University shall arrange for setting the question paper by appointing external paper setter from that panel.

## 16. GRADING AND GRADE POINTS

- 16.1. Grade Point:** It is a numerical weight allotted to each letter grade on a 10-point scale
- 16.2. Letter Grade:** It is an index of the performance of students in a said course. Grades are denoted by letters O, A, B, C, D, P and F.
- 16.3. Semester Grade Point Average (SGPA):** It is a measure of performance of work done in a semester. It is the ratio of total credit points secured by a student in various courses registered in a semester and the total course credits taken during that semester. It shall be expressed up to two decimal places.
- 16.4. Cumulative Grade Point Average (CGPA):** It is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the cumulative sum of the credits of all courses in all the semesters. It is expressed up to two decimal places.
- 16.5. Letter Grades and Grade Points:** A 10-point grading system with the following letter grades are to be followed. A Student obtaining Grade F shall be considered failed and will be required to reappear in the examination. For non-credit courses ‘Satisfactory’ or ‘Unsatisfactory’ shall be indicated instead of the letter grade and this will not be counted for the computation of SGPA/CGPA.
- 16.6.** To pass course in BTH dual engineering Programme, a student has to secure a minimum Grade of P in End-Semester Examination. A student obtaining Grade F shall be considered failed and will be required to reappear in the examination. A student cannot reappear for the End-Semester Examination in a course in which she has passed to improve the score. Grade, Grade points and equivalent % marks is shown in Table 2.

**Table 2: Grades and Grade Points**

Equivalent % marks	Letter Grade	Grade Point
90-100	O (Outstanding)	10
80-89	A (VERY Good)	9
70-79	B (Good)	8
60-69	C (Above Average)	7
50-59	D(Average)	6
40-49	P (Pass)	5
Below 40	F(Fail)	0
0	AB (Absent)	0

**16.7.** A student who has failed in a course can reappear for the End Semester Examination as and when it is held in the normal course the Sessional Marks obtained by the student will be carried over for declaring the result. The class attained based on the CGPA is shown in Table 3. Equivalent pass percentage if, needed can be found by =  $(CGPA - 0.5) \times 10$

**Table 3: Class attained with respect to CGPA**

<b>CLASS</b>	<b>CGPA</b>
First Class with Distinction	7.5 and Above
First Class	Below 7.5 but not less than 6.5
Second Class	Below 6.5 but not less than 5.5
Pass Class	Below 5.5 but not less than 5.0

Performance for 60 credits during 4<sup>th</sup> year at BTH will be converted into corresponding grade point average on a 10 point scale and the class will be decided based on the combined CGPA at SPMVV and BTH.

## **17. COMPUTATION OF SGPA AND CGPA AT SPMVV**

**17.1. Average (SGPA) and Cumulative Grade Point Average (CGPA):** The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student.

Sum of the number of credits of all courses undergone by a student in that semester, i.e.

$$SGPA (S_i) = \frac{\sum(C_i \times G_i)}{\sum C_i}$$

where  $C_i$  is the number of credits of the  $i^{\text{th}}$  course and  $G_i$  is the grade point scored by the student in the  $i^{\text{th}}$  course.

The CGPA is also calculated in the same manner considering all the courses undergone by a student over all the semesters of a programme, i.e.

$$CGPA (C_i) = \frac{\sum(C_i \times S_i)}{\sum C_i}$$

Where  $S_i$  is the SGPA of the  $i^{\text{th}}$  semester and  $C_i$  is the total number of credits in that semester. The SGPA and CGPA shall be rounded off to two decimal points and reported in the transcripts.

**Combined CGPA:**

$$CGPA \text{ at SPMVV: } CGPA \times 154 = \sum C_i \times S_i$$

$$CGPA \text{ at BTH: } CGPA \times 60 = \sum C_i \times S_i$$

$$Combined CGPA = \frac{\sum C_i \times S_i}{154 + 60}$$



## 17.2. ILLUSTRATION OF COMPUTATION OF SGPA and CGPA

### 17.2.1. Illustration for SGPA

#### Calculation of SGPA at SPMVV

Course	Credit (C <sub>i</sub> )	Grade Letter	Grade Point (G <sub>i</sub> )	Credit Point (C <sub>i</sub> × G <sub>i</sub> )
Course 1	3	A	9	3 × 9 = 27
Course 2	4	B	8	4 × 8 = 32
Course 3	3	B	8	3 × 8 = 24
Course 4	3	O	10	3 × 10 = 30
Course 5	3	C	7	3 × 7 = 21
Course 6	4	C	7	4 × 7 = 28
Total	20			162

$$\text{SGPA} = \frac{162}{20} = 8.10$$

#### Calculation of SGPA at BTH

Course	Credit (C <sub>i</sub> )	Grade Letter*	Grade Point (G <sub>i</sub> )	Credit Point (C <sub>i</sub> × G <sub>i</sub> )
Course 1	7.5	B	9	7.5 × 9 = 67.5
Course 2	7.5	A	10	7.5 × 10 = 75
Course 3	7.5	B	9	7.5 × 9 = 67.5
Course 4	7.5	C	8	7.5 × 8 = 60
Total	30			270

\* - The grade letter at BTH has different grade points than at SPMVV.

$$\text{SGPA at BTH} = \frac{270}{30} = 9$$

### 17.2.2. Illustration for CGPA

#### Calculation of CGPA at SPMVV

Semester	Credit, C <sub>i</sub>	SGPA, S <sub>i</sub>	(Credit, C <sub>i</sub> ) × (SGPA, S <sub>i</sub> )
Semester 1	25	6.94	173.5
Semester 2	27	7.60	205.2
Semester 3	26	7.20	187.2
Semester 4	26	6.85	178.1
Semester 5	26	7.12	185.12
Semester 6	24	7.42	178.08
	154	43.13	1107.2

$$\text{CGPA at SPMVV} = \frac{1107.2}{154} = 7.19$$

### Calculation of CGPA for the study at BTH

Semester	Credit, C <sub>i</sub>	SGPA, S <sub>i</sub>	(Credit, C <sub>i</sub> ) × (SGPA, S <sub>i</sub> )
Semester 1	30	9	270
Semester 2	30	8.5	255
Total	60		525

$$\text{Combined CGPA} = \frac{1107.2 + 525}{154 + 60} = \frac{1632.2}{214} = 7.63$$

### 18. CONDITIONS OF PROMOTION

A student shall be eligible for promotion to the next semester of BTH dual engineering Programme provided she satisfies the attendance requirements in the immediately preceding semester as Specified in clause 13.

### 19. CONDITION FOR TRANSFER TO BTH

The student shall complete the three year study at School of Engineering and Technology, SPMVV successfully without any backlogs and earn 154 credits to transit to 4<sup>th</sup> year study at BTH, Sweden.

### 20. TRANSITORY REGULATIONS FOR THE FIRST THREE YEARS AT SPMVV

**20.1.** A student who has been detained in any semester of previous regulations for not satisfying the attendance requirements shall be permitted to join in the corresponding semester of this regulation provided the clauses 13.1 and 13.6 hold good.

**20.2.** End-semester Examinations in each course under the regulations that precede immediately these regulations shall be conducted three times after the conduct of last regular examination under those regulations. Thereafter, the failed students, if any, shall take examination in the equivalent papers of these regulations as suggested by the Chairman, BOS concerned.

### 21. AMENDMENT TO REGULATIONS

Sri Padmavati Mahila Visvavidyalayam reserves the right to amend these regulations at any time in future without any notice. Further, the interpretation of any of the clause of these regulations entirely rests with university.

## **PART – II**

### **REGULATIONS FOR FINAL YEAR STUDY AT BTH**

#### **1. PREAMBLE**

Blekinge Institute of Technology and Sri Padmavati Mahila University collaborate in educational cooperation, intending to increase international understanding, promote the respect for the human rights declared in UN's Declaration of Human Rights and to contribute to the pool of global knowledge.

#### **2. MINIMUM QUALIFICATION FOR ADMISSION INTO BTH, SWEDEN FOR 4<sup>TH</sup> YEAR STUDY**

- 2.1.** Student should have completed three years of study at School of Engineering and Technology, SPMVV successfully without any backlogs and earned 180 Swedish credits ( $\cong$  154 SPMVV credits) of which a minimum of 60 Swedish credits ( $\cong$  51 SPMVV credits) need to be in the core field and a minimum of 15 Swedish credits ( $\cong$  13 SPMVV credits) need to be in Mathematics.
- 2.2.** Student should have passed specified mandatory courses according to the Bachelor Qualification Plan<sup>2</sup>.
- 2.3.** Student is expected to meet the transition requirements mentioned in 2.1 and 2.2 prior to the registration of courses at BTH.

#### **3. BRANCHES OF STUDY AT BTH**

- Computer Science
- Electrical Engineering emphasis on Telecommunications Systems
- Mechanical Engineering

#### **4. ACADEMIC YEAR AND SEMESTER**

One academic year comprises of 40 weeks full – time study. One academic year is divided into two semesters and each semester is divided into two learning periods. Each learning period comprises of 20 weeks full-time study. The student will study 60 Swedish credits during one academic year.

#### **5. CREDIT DEFINITION**

- 5.1.** Each course or programme is measured in credits. The number of credits awarded for each course/ programme is determined by the amount of study required to attain its objectives.
- 5.2.** The Swedish credits are compatible to European Credit Transfer System (ECTS), where one-week full-time studies (40 hours including lectures, individual studies etc.) is equivalent to 1.5 Swedish Credits. It is compatible with 1.5 European Credit Transfer System (ECTS). One academic year equals to 60 Swedish credits / ECTS credits and one semester equals to 30 Swedish credits/ ECTS.

#### **6. CLASSIFICATION OF COURSES**

Courses offered by BTH may comprise of mathematics, Basic Engineering Science and Program Core and inter-disciplinary. The offered courses are agreed mutually between BTH and SPMVV and will be incorporated in Bachelor Qualification Plan.

## 7. CREDITS REQUIRED FOR THE AWARD OF THE DEGREE AT BTH, SWEDEN

The degree will comprise of the credits earned from the studies both at SPMVV and BTH. The degree is awarded in adherence to both the Swedish National Systems of Qualification and the BTH System of Qualification.

A student shall become eligible for the award of the degree *Teknologie Kandidexamen* (translated as degree of Bachelor of Science). The degree is awarded if she earns a minimum of 180 Swedish credits.

The 180 Swedish credits should comprise of 90 Swedish credits (including the credits of bachelor thesis) in the core field and a minimum of 15 Swedish credits in Mathematics.

The SPMVV credits equivalent to 120 Swedish credits earned from identified courses by BTH shall be recognized and accredited to the BTH degree, and the rest of the 60 Swedish credits are taken from the education underwent at BTH.

The degree will be appended with Diploma supplement. The diploma supplement follows the model developed by European Commission, Council of Europe and UNESCO/CEPES. The purpose of the supplement is to provide sufficient independent data to improve international “transparency” and fair academic and professional recognition of qualifications (degrees, certificates etc). It is designed to describe the nature, level, content and status of studies that were pursued and completed by the individual named on the original qualifications to which the supplement is appended.

The enrolled in this BTH dual Engineering Programme (SPMVV and BTH) shall receive the following degrees upon successful completion of the required credits.

**Table 4: Award of a degree from BTH for SPMVV students**

S.No	Branch opted at SPMVV	Eligible Degree at BTH
1	Mechanical Engineering(MEC)	Bachelor of Science in Mechanical Engineering
2	Electronics and Communications Engineering (ECE)	Bachelor of Science in Electrical Engineering with emphasis on Telecommunications Systems
3	Computer Science & Engineering (CSE)	Bachelor of Science in Computer Science

## 8. SCHEME OF INSTRUCTION

The students admitted into BTH for 4<sup>th</sup> year study shall pursue the courses as inscribed in the BQP for the respective branch of study. The curricula, syllabus for the programme shall be selected from the offered courses by the institution.

The courses offered at BTH shall comprise of assignments including both individual and team assignments, written examinations and oral presentations as prescribed in the course descriptors.

## 9. ATTENDANCE

The attendance requirement will be prescribed in the individual course descriptors and course framework.

## 10. EVALUATION/ASSESSMENT

The evaluation/ assessment is done to examine that the student had met the learning objective of the courses. The assessment is done in different ways, such as individual assignments, group assignments, laboratory assignments, written examinations, oral presentations and projects etc. The methods of evaluation are prescribed in the individual course descriptor.

Each course will have a course responsible teacher and a course examiner. In some cases, the course responsible teacher and course examiner are the same. The course examiner decides the pattern of the examination and is responsible for examining the student whether the student had met the learning objectives of the course.

## 11. GRADING

BTH adopts either a seven-point (A, B, C, D, E, Fx, F) or a three-point (G/Ux/U) criterion-referenced grading scale for all course. In the seven-point grading scale, A–E are passing grades, A being the highest and E the lowest.

Grade	Grade in BTH
A	Excellent
B	Very good
C	Good
D	Satisfactory
E	Sufficient = Pass
FX	Fail but option provided for improvement
F	Fail

To receive a passing grade, E student has to meet all the learning objectives of the course. The learning objectives are mentioned in each course's descriptor. The assessment and the grading scale of the course are also explained in the descriptor.

In some courses, BTH adopts the three-point grading scale, G (Pass), U (Fail) and Ux (Fail).

The student must obtain at least the grade of E/G on all course components in order to be awarded a Pass on the entire course.

Students who receive the grade of Fx or Ux (insufficient results) may instead of a retake be given the opportunity to do an additional examination. The examiner will determine what is to be included in the examination, and it is to be individually adapted based on the goals not achieved by the student. The additional examination is to take place as soon as possible and no more than six weeks (counted in terms of semester periods) after the student has been notified of the examination results and before the next examination opportunity. After such time has passed, the grade of Fx will correspond to an F, and the grade of Ux will correspond to a U, and an additional examination will no longer be available.

If student fails, university will recommend migration committee for extension of visa. If visa is extended, student is permitted to continue the study at BTH, Sweden to complete supplementary courses. Otherwise, supplementary exam need to be conducted in SE&T, SPMVV, Tirupati.

### Award of Class:

BTH provide an overall grade only for a degree but students are not ranked relatively.

## **12. CHANGE OF EXAMINER**

The student can request for a change of examiner if the student is not satisfied with the assessment of examiner and failed at least in two occasions. The vice-chancellor of the BTH will take the decision based on the request of the student.

## **13. GRIEVANCES RELATED TO DISCRIMINATION<sup>1</sup>**

BTH have zero tolerance policy towards discrimination, harassment or other forms victimization due to gender, transgender identity or expression, ethnicity, disability, sexual orientation, religion or other belief and age.

If the student feels that she is having been subjected to discrimination, victimization or harassment, the student should inform a member of teaching staff, programme manager, the student health service, study counsellor and the student union.

## **14. TRANSITORY REGULATIONS**

The student will be registered to the courses only after the fulfilment of the prerequisites requirement stipulated in the course descriptors.

## **15. STUDY ADMINISTRATION RULES**

Rules for registration of examination, registrations to the courses and examination will be according to the study administration rules established through the decision of Vice-chancellor of BTH ( See the enclosure: Study administration rules BTH-1.2.1-0213-2019). The study administration rules will be provided to students prior to the commencement of the studies at BTH.

## **16. AMENDMENT TO REGULATIONS**

BTH reserves the right to amend the regulations at any time in future without any notice. However, BTH will see that student's interest and interest of the cooperation is protected.

**Prof. P. Venkata Krishna**  
Chairman, BoS, CSE

**Benny Lovstrom**  
Dean, Faculty of Engineering  
and Director for Internationalization

**Prof. A. Ramakrishna Rao**  
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## AGREEMENT ON COMMON UNDERSTANDING FOR MUTUAL TRANSFER OF CREDITS BETWEEN SPMVV AND BTH

Blekinge Institute of Technology and Sri Padmavati Mahila University mutually agree on the following to have common consensus for the transfer/accrediting of credits from BTH to SPMVV to fulfil the degree-awarding administrative formalities and vice - versa.

### CREDITS AND GRADES TRANSFERRING FROM BTH TO SPMVV

One year of full-time studies will be of forty weeks which corresponds to sixty higher education credits at BTH. The 60 BTH credits are transferred from BTH to SPMVV degree and considered to be equivalent to 52 credits at SPMVV during the award of the degree at SPMVV.

BTH adopts either a seven-point (A, B, C, D, E, Fx, F) or a three-point (G/Ux/U) criterion-referenced grading scale for all course. In the seven-point grading scale, A–E are passing grades, A being the highest and E the lowest. In the three-point grading scale, G is the only passing grade. BTH recommends the SPMVV to consider the following grade conversion scale while transferring the grades under a seven-point scale from BTH to SPMVV degree.

Grade in BTH	Equivalent Grade in SPMVV	Estimated Range of Marks	Recommended Equivalent Grade Value in SPMVV
A – Excellent	O - Outstanding	90-100	10
B - Very good	A - Very Good	80-89	9
C - Good	B - Good	70-79	8
D - Satisfactory	C - Above Average	60-69	7
E - Sufficient	D - Average	50-59	6
Fx - Fail but option provided for improvement	P - Pass	40-49	5
F - Fail	F - Fail	Below 40	0

*Note: In the case of the three-point grading scale, G = Godkänd (Pass), the credits of the course will be considered for the transfer, but the grade is not computed for the GPA/CGPA or for the “award of class” in the degree at SPMVV. There commended pass grade at BTH is 5/10 scale.*

If supplementary exam is to be conducted in India, a portion fee from supplementary exam should be given to SPMVV.

### CREDITS AND TRANSFERRING OF GRADES TO BTH FROM SPMVV

BTH will identify credits equivalent to 120 Swedish credits associated to the recognized courses from the studies underwent at SPMVV during the first three years of education to the degree. BTH doesn't provide an overall grade for a degree and students are not ranked in classes. Due to this, BTH will only transfer the courses and associated credits.

## ANNEXURE I

### Mandatory Courses offered at SPMVV for Transfer to BTH, Sweden

S.No	Course Code	Course Title	Credits	Semester
1	BST03	Engineering Mathematics – I	4	1
2	CST01	Problem Solving and Computer Programming	4	1
3	CSP01	Computer Programming Lab	1	1
4	BST06	Engineering Mathematics – II	4	2
5	CST02	Data Structures	4	2
6	CSP02	Data Structures Lab	1	2
7	CST03	Discrete Mathematical Structures	4	2
8	BST08	Probability and Statistics	4	3
9	CST04	Java Programming	4	3
10	CSP03	Java Programming Lab	1	3
11	CST05	Database Management Systems	4	3
12	CSP04	Database Management Systems Lab	1	3
13	CST06	Data Communication	4	4
14	CST07	Unix and Shell Programming	4	4
15	CST08	Computer Organization	4	4
16	CST09	Operating Systems	4	4
17	CST10	Principles of Programming Language	4	4
18	CSP05	Unix and Shell Programming Lab	1	4
19	CSP06	Operating Systems Lab	1	4
20	CST14	Artificial Intelligence	4	5
21	CST16	Design and Analysis of Algorithms	4	5
22	CSP08	Design and Analysis of Algorithms & Artificial Intelligence Lab	1	5
		Total	67	

Note: In addition, student will do 29 courses for 87 credits during the first three year study at SPMVV totalling 154 credits.

### COURSES IN THE FINAL YEAR AT BTH

Course	Course title	Credits	Type of Course
ET1543	Methods and Tools for Engineering Students	7.5	O
DV1614	Applied Programming in Python	7.5	O
DV1469	Mobile Applications Development	7.5	O
DV1566	Introduction to Cloud Computing	7.5	V
DV1557	Usability and Interaction Design	7.5	V
PA1458	Software Design	7.5	V
DV1584	Compiler Design and Translation Technique	7.5	V
DV1478	Bachelor Thesis in Computer Science	15	O

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