

## **Criterion 1 – Curricular Aspects (100)**

### **Key Indicator – 1.1 Curricular Planning and Implementation (20)**

<b>Metric No.</b>		<b>Weightage</b>
<b>1.1.1</b>	<p><b>The institution ensures effective curriculum delivery through a well-planned and documented process</b></p> <p>Sapthagiri College of Engineering is an affiliated institution under Visvesvaraya Technological University (VTU) and follows the scheme and syllabus prescribed by the university. University offers 68 courses per semester per program. Faculty members give feedback about the syllabus in the Board of Studies meetings conducted by the university. However the curriculum is prepared by the institution in line with institution's vision and mission.</p> <p><b><u>Curriculum Planning:</u></b></p> <ul style="list-style-type: none"> <li>❖ The College Council which comprises the Principal and all Heads of the departments meet regularly to discuss the University related activities and academic related issues of the institution. Principal issues a circular to the IQAC to prepare the perspective Plan of the College for the upcoming Academic year.</li> <li>❖ Before the commencement of the academic year, the IQAC sends a notice to all Heads of the Departments to prepare and submit timetable, SPP, Budget requirement, Workload and teacher requirement, Curriculum plan, deployment strategy and curriculum delivery tools, Bridge course/ certification course planned for next academic year to IQAC for approval and adoption.</li> <li>❖ IQAC also sends a circular to all Committees, cells and clubs asking them to prepare and submit their perspective plan and plan of action to IQAC. The HODs will send a notice on the same or next working day and convene a meeting for brainstorming and the preparation of the same. Departments meet and prepare all the items asked by the IQAC and submit the same to the IQAC for approval. HOD allocates the subjects to all the faculty members based on their choice of expertise and experience. Faculty members prepare a well-structured course plan in line with college calendar of events, university syllabus and class time table.</li> </ul>	<b>10</b>

Additional / Tutorial classes are planned in timetable for difficult courses.

- ❖ Various committees/Cells/Associations prepare their SPP and budget and submit the same to the IQAC for approval. IQAC prepare a consolidated college Perspective plan and submit the same to Governing council for the approval through GC meeting proceedings.

**Curriculum Implementation:**

The planned curriculum is delivered to the students through

- ❖ Chalk and talk
- ❖ Power point presentations
- ❖ Illustrative models
- ❖ ICT tools like NPTEL Videos
- ❖ Case studies,
- ❖ Role plays
- ❖ Conducting guest lectures
- ❖ invited talks and workshops
- ❖ Industrial visits
- ❖ Project work Internships
- ❖ Peer Teaching and Peer Learning.

SCE has 44 ICT enabled class rooms and 4 smart class rooms. As part of the curriculum, cross cutting issues like Gender Sensitization, Environment and Sustainability, Professional ethics and Human values are covered. The curriculum gaps bridged through delivery in the form of content beyond Syllabus through Guest Lectures, Workshops and Certification courses.

Curriculum delivery also happens through various activities outside the four walls of the classroom through Cells and Clubs.

**Curriculum Delivery Review:**

- The effectiveness of planned curriculum implementation is reviewed by HODs in regular review meetings and IQAC in every semester.
- IQAC also conduct audit to review the effectiveness of strategic perspective plan of the previous academic year in the starting of the current academic year

**Performance evaluation of students:**

- Students' performance is evaluated through Formative and Summative

	Assessments (CIE & SEE).							
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<b>Additional information</b>	<a href="#">Weblink sample</a>							
1.1.2	<p><b>The institution adheres to the academic calendar including the conduct of CIE</b></p> <p>Sapthagiri College of Engineering is affiliated to the Visvesvaraya Technological University and college calendar of events is prepared in line with the university calendar of events by including weekly working days and holidays, government holidays, internal assessment dates, practical exam dates, workshops schedule, technical seminars schedule, industrial visit dates, PTM schedule, sports day, cultural day, graduation day, last working day of the semester and get approved in Governing council meeting. Approved calendar of events is circulated to all the staff &amp; students and also uploaded in the college website for information &amp; compliance.</p> <p>The academic calendar of the institute is planned well in advance based on the calendar provided by the university and the same is displayed on the notice boards for the benefit of the students. Lesson plans and Class time table are then prepared based on the academic calendar and distributed to the students through e - mail / Whatsapp group. The Strategic Perspective Plans prepared by the Departments and the Clubs and Cells are also in sync with the University Calendar of events. This also takes care of curriculum plans, activities like internship, industrial visits, community activities by Cells and Clubs, besides Continuous Internal Evaluation strategies like tests, assignments, quiz, presentations etc.</p> <p>Examination Cell convener issues a circular to all IA Coordinators of different departments to prepare the IA timetable 10 days in advance to the IA test as per the scheduled dates in COE and the same is notified and circulated to students and staffs. Common date and time are followed for the courses common to all branches. CIE includes Tests, homework, problem solving, Group discussion, quiz and seminars throughout the semester.</p> <ul style="list-style-type: none"><li>• The first internal assessment test of semester is generally scheduled in</li></ul>	5						

	<p>fifth week after the commencement of semester.</p> <ul style="list-style-type: none"><li>• Three internal test each consisting of three days, and students will have to take two tests per day.</li><li>• Internal assessment test for Practical subjects also will be intimated in the Academic calendar at the end of semester.</li><li>• Before starting of each internal assessment test, assignments are given to the students for each subject which includes homework, problem solving, Group discussion and quiz.</li><li>• Seminars are carried out by the students on particular topic in a subject during the respective subject hour.</li><li>• Internals are conducted, evaluated and also the display of marks and attendance is done as per the calendar of events;</li></ul> <p>The laboratory Schedule is prepared by the concerned faculty and batch-wise details are specified in laboratory schedule. Time Table of regular lectures for the semester is prepared as well and displayed on the notice board and website. There is an academic monitoring committee appointed by the Principal/HOD who monitors the day- to- day conduct of the lectures based on the time table.</p>						
	<table><tr><th>File Description</th><th>Document</th></tr><tr><td>CIE related files</td><td><a href="#">View Document</a></td></tr></table>	File Description	Document	CIE related files	<a href="#">View Document</a>		
File Description	Document						
CIE related files	<a href="#">View Document</a>						
1.1.3	<p><b>Teachers of the Institution participate in following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the last five years</b></p> <ol style="list-style-type: none"><li>1. Academic council / BoS of Affiliating university</li><li>2. Setting of question papers for UG/PG programs</li><li>3. Design and Development of Curriculum for Add on/ certificate/ Diploma Courses</li><li>4. Assessment /evaluation process of the affiliating University</li></ol> <p><b>Options</b></p> <ol style="list-style-type: none"><li>1. All of the above</li><li>2. Any 3 of the above</li><li>3. Any 2 of the above</li><li>4. Any 1 of the above</li><li>5. None of the above</li></ol> <p><b>Response: 1. All of the above</b></p>			5			
	<table><tr><th>File Description</th><th>Links</th></tr></table>	File Description	Links				
File Description	Links						

		<b>Data template as per DVV</b>	<a href="#">View Document</a>		
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## 1.2 Academic Flexibility (30)

Metric No.		Weightage										
1.2.1	<p><b>Percentage of programs in which Choice Based Credit System (CBCS)/Elective course system has been implemented</b></p> <p><b>Response : 100%</b></p> <p><b>1.2.1.1. Number of Programmes in which CBCS/ Elective course system implemented.</b></p> <p><b>Response: 09</b></p> <p>Formula: <math display="block">\frac{\text{Number of Programmes in which CBCS or elective course system implemented}}{\text{Total number of Programmes offered}} \times 100</math></p> <p><b>Percentage =( 09/09)x100=100%</b></p>	10										
	<table><tr><th>File Description</th><th>Document</th></tr><tr><td>Name of the programs in which CBCS isimplemented</td><td><a href="#">View Details</a></td></tr></table>	File Description	Document	Name of the programs in which CBCS isimplemented	<a href="#">View Details</a>							
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1.2.2	<p><b>Number of Add on /Certificate programs offered during the last five years</b></p> <p><b>Response : 54</b></p> <p><b>1.2.2.1: How many Add on /Certificate programs are added within the last 5 years</b></p> <p><b>Response : 54</b></p> <table><tr><th>2018-19</th><th>2017-18</th><th>2016-17</th><th>2015-16</th><th>2014-15</th></tr><tr><td>15</td><td>12</td><td>11</td><td>9</td><td>7</td></tr></table>	2018-19	2017-18	2016-17	2015-16	2014-15	15	12	11	9	7	10
2018-19	2017-18	2016-17	2015-16	2014-15								
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	<table><tr><th>File Description</th><th>Document</th></tr><tr><td>Details of Certification/ Add on programs offered</td><td><a href="#">View Document</a></td></tr><tr><td>Supporting Documents</td><td><a href="#">View Document</a></td></tr></table>	File Description	Document	Details of Certification/ Add on programs offered	<a href="#">View Document</a>	Supporting Documents	<a href="#">View Document</a>					
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1.2.3	<div>Average percentage of students enrolled in Certificate/ Add-on programs as against the total number of students during the last five years</div> <div>Response : 50%</div> <div>1.2.3.1. Number of students enrolled in subject related Certificate or Add-on programs year wise during last five years</div> <table><tr><td>2018-19</td><td>2017-18</td><td>2016-17</td><td>2015-16</td><td>2014-15</td></tr><tr><td>1917</td><td>1434</td><td>1474</td><td>1107</td><td>646</td></tr></table> <div>Response : 6578</div> <div>Total number of students enrolled in certificate / Add -on programs</div> <div>Percentage per year = <math>\frac{\text{Total number of students enrolled in certificate / Add -on programs}}{\text{Total number of students across all the programs}} \times 100</math></div> <table><tr><td>2018-19</td><td>2017-18</td><td>2016-17</td><td>2015-16</td><td>2014-15</td></tr><tr><td>67.66%</td><td>53.32%</td><td>53.17%</td><td>43.42%</td><td>27.6%</td></tr></table> <div>Average percentage = <math>\frac{\sum \text{Percentage per year}}{5}</math></div> <div>Average Percentage = 50%</div>	2018-19	2017-18	2016-17	2015-16	2014-15	1917	1434	1474	1107	646	2018-19	2017-18	2016-17	2015-16	2014-15	67.66%	53.32%	53.17%	43.42%	27.6%	10
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### 1.3 Curriculum Enrichment (30)

Metric No.		Weightage
1.3.1	<p><b>Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum</b></p> <p>Sapthagiri College of Engineering strongly believes in integrating cross cutting issues relevant to professional ethics, gender, human values, environment and sustainability with a view to ensure holistic development of the students. The students of Sapthagiri College of Engineering trained to be empowered professionals and contribute to the economic and technological</p>	10

development of the nation along with integration of human values, Professional Ethics, Environment Sustainability and gender equity to become a good citizen of the nation.

The efforts made by the Institution to integrate the cross cutting issues are:

Human Values and Professional Ethics

Environment Sustainability

Gender Sensitization

**Human Values and Professional Ethics:**

To understand the moral values and Professional Ethics that ought to guide the Management profession to resolve the moral issues in the profession, the college has made effortstowards developing value based education to technical engineers with a vision to promote values to be a better citizen. The university has prescribed two courses for all engineering programs relevant to human values and professional ethics, in the first and second year of B.E.

1. Constitution of India and Professional Ethics(15CIP18/28)
2. Constitution of India, Professional Ethics and human rights(17CPH39)

**Environment Sustainability:**

It is essential to create awareness among the students regarding the need to protecting environments and a way of keeping the delicate ecosystems of our planet in balance. The university has prescribed a mandatory and non-core mandatory environmental courses in first year.

- 1.Environmental Science (15CIV18/28)

The university has also prescribed a mandatory and non-core mandatory environmental courses for all engineering program address this issues in the curriculum for higher semesters

**Table:**Cross cutting issue addressed by mandatory and non-core mandatoryenvironmental subjects in the curriculumfor higher semesters.

Sl.No.	Mandatory Courses	Subject Code	Non-core mandatory courses	Subject code
1	Environmental Science	15CIV18/28	Environmental Biotechnology	15BT833
2	Municipal And Industrial Waste Water Engineering	15CV71	Biotechnology for sustainable Environment	15BT563

3	Engineering Geology	15CV35	Solid Waste Management	15CV651
4	Water supply and treatment engineering	15CV64	Water resources management	15CV661

The college also addresses these issues through the cells and clubs such as HASIRIU-ECO club, and NSS which integrates these values.

The HASIRU- ECO Club organized events such as Best out of waste, precautions and awareness on global warming, Environmental pollution& its ill effects, World Food Day and Traffic awareness programme, to enlighten students with different issues and its effects on environment.

The NSS team organised many environmental and health care activities like Swatch Bharat Abhiyan, World Water Day, Health Camps and Exhibition, Healthy India, and a mega Voluntary Blood Donation Camp to address the issues related to human values and environmental sustainability.

#### **Gender Sensitization:**

Gender sensitization includes a positive and gender-intelligent organizational culture, growth and progress of women leaders. The importance of gender equity is integrated through women empowerment cell and Equal Opportunities Committee in the curriculum.

SAMARTHINI-Women Empowerment Cell of the institution organised events such as “Awareness program for female students and faculty”, “Treating women with dignity”, “Create awareness among students and staff about the need for women empowerment”, Self Defense Program and motivational programs such as “Be a Role Model - No Gender Discrimination and not to be Sexual Pervert”.

To address the gender equality, SAPTHA-SAMATHA- Equal Opportunities Committee - of the institution conducted many of community activities such as Awareness on Usage of Internet “ANTHARAJALA”, “Awareness Program on Children Safety”, and “Awareness Program on Women Hygiene”. The outcome of this is to make the young boys and girls gender



	sensitive and build a positive value that supports the girls and their rights													
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Additional Information	<a href="#">View Details</a>													
1.3.2	<p><b>Average percentage of courses that include experiential learning through project work/field work/internship during last five years</b></p> <p><b>Response: 63.02%</b></p> <p><b>1.3.2.1: Number of courses that include experiential learning through project work/field work/internship year wise during last five years</b></p> <p><b>Response: 1369</b></p> <p>Data Requirement for last five years: (As per Data Template)</p> <ul style="list-style-type: none"><li>• Name of the Course</li><li>• Details of experiential learning through project work/field work/internship</li><li>• Name of the Programme</li></ul> <p>Formula:</p> <p style="text-align: center;"><math display="block">\text{Percentage Per Year} = \frac{\text{Number of courses that include experiential learning through project work /field work/internship}}{\text{Number of courses in all Programmes}} \times 100</math></p> <table><tr><td><b>Academic year</b></td><td><b>2018-19</b></td><td><b>2017-18</b></td><td><b>2016-17</b></td><td><b>2015-16</b></td><td><b>2014-15</b></td></tr><tr><td><b>Percentage per year</b></td><td><b>62%</b></td><td><b>61%</b></td><td><b>63.6%</b></td><td><b>64.5%</b></td><td><b>64%</b></td></tr></table> <p>Average percentage = <math display="block">\frac{\sum \text{Percentage per year}}{5}</math> <b>= 63.02%</b></p>	<b>Academic year</b>	<b>2018-19</b>	<b>2017-18</b>	<b>2016-17</b>	<b>2015-16</b>	<b>2014-15</b>	<b>Percentage per year</b>	<b>62%</b>	<b>61%</b>	<b>63.6%</b>	<b>64.5%</b>	<b>64%</b>	10
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Supporting Documents	<a href="#">View details</a>													
1.3.3	<p><b>Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)</b></p> <p><b>Response: 100%</b></p> <p><b>1.3.3.1. Number of students undertaking project work/field work / internships</b></p> <p><b>Response: 661</b></p> <p>Formula:</p>	10												

	<div>Number of students undertaking project work /field work / internships</div> <div>Total number of students</div> <div>Percentage= (661/661)x100=100%</div>							
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### Key Indicator- 1.4 Feedback System (20)

Metric No.		Weightage						
1.4.1	<p><i>Institution obtains feedback on the syllabus and its transaction at the institution from the following stakeholders</i></p> <p><i>1) Students 2)Teachers 3)Employers 4)Alumni</i></p> <p><b>Options:</b></p> <p>A. All of the above</p> <p>B. Any 3 of the above</p> <p>C. Any 2 of the above</p> <p>D. Any 1 of the above</p> <p>E. None of the above</p> <p>F. Response : A. All of the above (Students, teachers, Employers and Alumni.)</p>	10						
	<table><tr><th>File Description</th><th>Document</th></tr><tr><td>Feedback Collected Details</td><td><a href="#">View Details</a></td></tr></table>	File Description	Document	Feedback Collected Details	<a href="#">View Details</a>			
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Feedback Collected Details	<a href="#">View Details</a>							
1.4.2	<p><b>Feedback process of the Institution may be classified as follows:</b></p> <p><b>Options:</b></p> <p>A. Feedback collected, analyzed and action taken and feedback available on website</p> <p>B. Feedback collected, analysed and action has been taken</p> <p>C. Feedback collected and analysed</p> <p>D. Feedback collected</p> <p>E. Feedback not collected</p> <p>F. <b>Response : A. Feedback collected, analysed and action taken and feedback available on website</b></p>	10						
	<table><tr><th>File Description</th><th>Document</th></tr><tr><td>Feedback Analysis &amp; Action taken report</td><td><a href="#">View Details</a></td></tr><tr><td></td><td></td></tr></table>	File Description	Document	Feedback Analysis & Action taken report	<a href="#">View Details</a>			
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Feedback Analysis & Action taken report	<a href="#">View Details</a>							