

DAYANANDA SAGAR UNIVERSITY
Shavige Malleshwara Hills, Kumaraswamy Layout,
Bengaluru - 560078, Karnataka.

SCHOOL OF ENGINEERING



**SCHEME & SYLLABUS
FOR
BACHELOR OF VOCATION**

SPECIALIZATION: MECHATRONICS

(With Effect from 2018-19)

SEMESTER – 1

GENERAL EDUCATION COMPONENTS: 12 CREDITS, 180H				
SL. NO.	COURSE CODE	COURSE TITLE	CREDITS	HOURS
1	18VM101	ENGLISH-I	2	30
2	18VM102	MATHEMATICS-I	3	45
3	18VM103	APPLIED SCIENCE	2	30
4	18VM104	ELECTRONICS – I	3	45
5	18VM105	BASICS OF COMPUTER - I	2	30
SKILL COMPONENTS: 18 CREDITS, 270H				
6	18VM106	APPLIED SCIENCE LAB	3	45
7	18VM107	BASICS OF COMPUTERS LAB	3	45
8	18VM108	ELECTRONICS LAB – I	4	60
9	18VM109	WORKSHOP PRACTICE – I	4	60
10	18VM110	ENGINEERING DRAWING	4	60

SEMESTER – 2

GENERAL EDUCATION COMPONENTS: 12 CREDITS, 180H				
SL. NO.	COURSE CODE	COURSE TITLE	CREDITS	HOURS
1	18VM201	ENGLISH-II	2	30
2	18VM202	MATHEMATICS-II	2	30
3	18VM203	ELECTRONICS – II	2	30
4	18VM204	ELECTRICAL ENGINEERING SCIENCE	2	30
5	18VM205	MECHANICAL ENGINEERING	2	30
6	18VM206	METROLOGY	2	30
SKILL COMPONENTS: 18 CREDITS, 270H				
7	18VM207	CADD	5	75
8	18VM208	WORKSHOP PRACTICE - II	5	75
9	18VM209	ELECTRICAL LAB	4	60
10	18VM210	ELECTRONICS LAB-II	4	60

SEMESTER – 3

GENERAL EDUCATION COMPONENTS: 12 CREDITS, 180H				
SL. NO.	COURSE CODE	COURSE TITLE	CREDITS	HOURS
1	18VM301	DIGITAL ELECTRONICS	3	45
2	18VM303	COMPUTER PROGRAMMING – C,C++	3	45
3	18VM311	CONTROL SYSTEMS	2	30
4	18VM312	INDUSTRIAL ELECTRONICS	2	30
5	18VM313	MECHANICS OF MACHINES	2	30
6	19AU0009	ENVIRONMENTAL STUDIES	AUDIT	
SKILL COMPONENTS: 18 CREDITS, 270H				
7	18VM306	COMPUTER PROGRAMMING – C,C++ LAB	5	75
8	18VM308	PCB DESIGN AND FABRICATION LAB	4	60
9	18VM310	DIGITAL ELECTRONICS LAB	5	75
10	18VM314	INDUSTRIAL ELECTRONICS LAB	4	60

SEMESTER – 4

GENERAL EDUCATION COMPONENTS: 12 CREDITS, 180 H				
SL. NO.	COURSE CODE	COURSE TITLE	CREDITS	HOURS
1	18VM401	MICRO CONTROLLER & APLICATIONS	2	30
2	18VM404	MEMS	3	45
3	18VM411	PYTHON PROGRAMMING	3	45
4	18VM412	PLC	2	30
5	18VM413	MEASUREMENT SYSTEMS	2	30
6	19AU0004	CONSTITUTION OF INDIA AND PROFESSIONAL ETHICS	AUDIT	
SKILL COMPONENTS: 18 CREDITS, 270H				
7	18VM410	MICRO CONTROLLER & APLICATIONS LAB	5	75
8	18VM414	PYTHON PROGRAMMING LAB	5	75
9	18VM415	PLC LAB	4	60
10	18VM416	MEASUREMENT AND INSTRUMENTATION LAB	4	60

SEMESTER – 5

GENERAL EDUCATION COMPONENTS: 12 CREDITS, 180H				
SL. NO.	COURSE CODE	COURSE TITLE	CREDITS	HOURS
1	18VM513	EMBEDDED SYSTEM AND IOT	3	45
2	18VM514	PRODUCT DESIGN AND DEVELOPMENT	2	30
3	18VM515	CNC TECHNOLOGY	2	30
4	18VM516	ROBOTICS	2	30
5	18VM5XX	ELECTIVE – I	3	45
6	19AU0020	KANNADA KALI – I	AUDIT	*
SKILL COMPONENTS :18 CREDITS,270H				
7	18VM517	EMBEDDED SYSTEM LAB	3	4 5
8	18VM518	CNC TECHNOLOGY LAB	3	4 5
9	18VM519	ADVANCED PLC LAB	3	4 5
10	18VM520	ROBOTICS LAB	3	4 5
11	18VM521	PROJECT PHASE – I	6	9 0

SEMESTER – 6

GENERAL EDUCATION COMPONENTS: 12 CREDITS, 180H				
SL. NO.	COURSE CODE	COURSE TITLE	CREDITS	HOURS
1	18VM608	INDUSTRIAL MANAGEMENT	3	45
2	18VM609	INDUSTRIAL EQUIPMENT MAINTENANCE	3	45
3	18VM610	ADDITIVE MANUFACTURING	3	45
4	18VM6XX	ELECTIVE II	3	45
SKILL COMPONENTS: 18 CREDITS, 270H				
5	18VM611	AUTOMOTIVE ELECTRONICS LAB	4	60
6	18VM612	PROJECT PHASE II	8	210

LIST OF ELECTIVES – I

SL	COURSE CODE	COURSE TITLE
1	18VM522	ADVANCED PLC
2	18VM523	PROCESS CONTROL

LIST OF ELECTIVES – II

SL	COURSE CODE	COURSE TITLE
1	18VM613	AUTOMOTIVE ELECTRONICS
2	18VM614	ADVANCED MICROCONTROLLERS