

IDEAL COLLEGE OF ARTS AND SCIENCES
AUTONOMOUS & NAAC B
Dr. P.V.N RAJU VIDYAPRANGANAM
SAMALKOT ROAD, KAKINADA

LIST OF NEW COURSES

Academic Year - 2022 - 2023

S.No	Name of the New Courses	Department	Program
1	Abstract Algebra	Mathematics	B.Sc (M.C.Cs)
2	Real Analysis	Mathematics	B.Sc (M.C.Cs)
3	Linear Algebra	Mathematics	B.Sc (M.C.Cs)
4	Numerical Methods	Mathematics	B.Sc MPC, MPCs
5	Mathematical Special functions	Mathematics	B.Sc MPC, MPCs
6	Multiple Integrals and Applications of Vector Calculus	Mathematics	B.Sc MPC, MPCs
7	Integral transforms with Applications	Mathematics	B.Sc MPC, MPCs
8	Partial Differential Equations and Fourier Series	Mathematics	B.Sc MPC, MPCs
9	Number theory	Mathematics	B.Sc MPC, MPCs
10	Applications of Electricity & Electronics	Physics	MPC, MPCs
11	Electronic Instrumentation	Physics	MPC, MPCs
12	Optical Instruments and Optometry	Physics	MPC, MPCs
13	Optical Imaging and Photography	Physics	MPC, MPCs
14	Low Temperature physics & Refrigeration	Physics	MPC, MPCs
15	Solar Energy & Applications	Physics	MPC, MPCs
16	Data Science	Computer Science	B.Sc.(M.P.CS)
17	Python for Data Science	Computer Science	B.Sc.(M.P.CS)
18	Web Interface Designing Technologies	Computer Science	B.Sc.(M.P.CS)
19	Web Applications Development using PHP & MYSQL	Computer Science	B.Sc.(M.P.CS)
20	Internet of Things	Computer Science	B.Sc.(M.P.CS)

S.No	Name of the New Courses	Department	Program
21	Application Development using Python	Computer Science	B.Sc.(M.P.CS)
22	Database Management System	Computer Science	B.Sc.(M.P.CS)
23	Object Oriented Programming using Java	Computer Science	B.Sc.(M.P.CS)
24	Operating System	Computer Science	B.Sc.(M.P.CS)
25	Analytical Methods in Chemistry-1	Chemistry	B.Sc. (MPC, BZC)
26	Analytical Methods in Chemistry-2	Chemistry	B.Sc. (MPC, BZC)
27	Synthetic Organic Chemistry	Chemistry	B.Sc. (MPC, BZC)
28	Analysis of Organic Compounds	Chemistry	B.Sc. (MPC, BZC)
29	Industrial Chemistry - 1	Chemistry	B.Sc. (MPC, BZC)
30	Industrial Chemistry - 2	Chemistry	B.Sc. (MPC, BZC)
31	Environmental Chemistry	Chemistry	B.Sc. (MPC, BZC)
32	Green Chemistry and Nano Technology	Chemistry	B.Sc. (MPC, BZC)
33	Analytical methods in Chemistry	Chemistry	B.Sc. (MPC, BZC)
34	Cosmetics and Pharmaceutical Chemistry	Chemistry	B.Sc. (MPC, BZC)
35	Organic Chemistry and Spectroscopy	Chemistry	B.Sc. (MCCS)
36	Inorganic, Organic and Physical Chemistry	Chemistry	B.Sc. (MCCS)
37	Inorganic and Physical Chemistry	Chemistry	B.Sc. (MCCS)
38	Vegetable Crops – Cultivation Practices	Botany	B.Sc., B.Z.C
39	Vegetable Crops – Post Harvest Practices	Botany	B.Sc., B.Z.C
40	Plant Propagation	Botany	B.Sc., B.Z.C
41	Seed Technology	Botany	B.Sc., B.Z.C
42	Plant tissue culture	Botany	B.Sc., B.Z.C
43	Mushroom Cultivation	Botany	B.Sc., B.Z.C
44	Gardening, Landscaping	Botany	B.Sc., B.Z.C
45	Agro Forestry	Botany	B.Sc., B.Z.C
46	SUSTAINABLE AQUACULTURE MANAGEMENT	Zoology	B.Sc., B.Z.C
47	POST HARVEST TECHNOLOGY OF FISH AND FISHERIES	Zoology	B.Sc., B.Z.C

S.No	Name of the New Courses	Department	Program
48	Live Stock Management – I (Biology of Dairy Animals)	Zoology	B.Sc., B.Z.C
49	Live Stock Management – II (Dairy Production and Management)	Zoology	B.Sc., B.Z.C
50	Poultry Management – I (Poultry Farming)	Zoology	B.Sc., B.Z.C
51	Poultry Management – II (Poultry Production and Management)	Zoology	B.Sc., B.Z.C
52	Seri Culture – I	Zoology	B.Sc., B.Z.C
53	Seri Culture – II	Zoology	B.Sc., B.Z.C
54	Tourism and Hospitality Services	History	B.A
55	Tourism Guidance and operating skills	History	B.A
56	Insurance Services	Economics	B.A
57	Banking and Financial Services	Economics	B.A
58	Rural Entrepreneurship	Economics	B.A
59	Farmer producer organization	Economics	B.A
60	Urban Entrepreneurship and MSMEs	Economics	B.A
61	Retail and Digital Marketing	Economics	B.A
62	Inferential statistics and software packages	Economics	B.A
63	Project designing and report writing	Economics	B.A
64	E- Governance	Political Science	B.A
65	Local Administration	Political Science	B.A
66	Digital Marketing	Commerce	B.Com
67	Service Marketing	Commerce	B.Com
68	Management Accounting	Commerce	B.Com
69	Cost Control Techniques	Commerce	B.Com
70	Life Insurance with Practice	Commerce	B.Com
71	General Insurance with Practice	Commerce	B.Com
72	Advanced Corporate Accounting	Commerce	B.Com
73	Advertising and Media Planning	Commerce	B.Com
74	Software Solutions to Accounting	Commerce	B.Com

S.No	Name of the New Courses	Department	Program
75	Sales Promotion and Practice	Commerce	B.Com
76	Logistics Services and Practice	Commerce	B.Com
77	Income Tax Procedure & Practice	Commerce	B.Com
78	EXIM Procedure and practice	Commerce	B.Com
79	GST Procedure & Practice	Commerce	B.Com
80	Stock Markets	Commerce	B.Com
81	E Commerce	Commerce	B.Com
82	Stock Market Analysis	Commerce	B.Com
83	E filing	Commerce	B.Com
84	Advanced Accounting	Commerce	B.Com(CA)
85	Business Statistics	Commerce	B.Com(CA)
86	PROGRAMMING WITH C and C++	Commerce	B.Com(CA)
87	Corporate Accounting	Commerce	B.Com(CA)
88	Cost and Management Accounting	Commerce	B.Com(CA)
89	Income Tax	Commerce	B.Com(CA)
90	Business Law	Commerce	B.Com(CA)
91	Auditing	Commerce	B.Com(CA)
92	DATA BASE MANAGEMENT SYSTEMS	Commerce	B.Com(CA)
93	Principles of seed technology	Agriculture	B.Voc
94	Disease of field crops and their management	Agriculture	B.Voc
95	Weed Management	Agriculture	B.Voc
96	Principles of Land scape gardening	Agriculture	B.Voc
97	Principles of seed technology	Sustainable Agriculture	B.Voc
98	Disease of field crops and their management	Sustainable Agriculture	B.Voc
99	Weed Management	Sustainable Agriculture	B.Voc
100	Principles of Land scape gardening	Sustainable Agriculture	B.Voc
101	Principles of Agronomy	Agriculture and Rural Development	B.Sc
102	Fundamentals of Horticulture	Agriculture and Rural Development	B.Sc

S.No	Name of the New Courses	Department	Program
103	fundamentals of rural sociology and agriculture psychology	Agriculture and Rural Development	B.Sc
104	Fundamentals of Soilsience	Agriculture and Rural Development	B.Sc
105	Principles of Genetics of Plant breeding	Agriculture and Rural Development	B.Sc
106	fundamentals of agriculture extension	Agriculture and Rural Development	B.Sc
107	Fishery By-Products	Industrial Aquaculture and Fisheries	B.Voc
108	Aquaculture engineering	Industrial Aquaculture and Fisheries	B.Voc
109	fisheries management, economics & Marketing	Industrial Aquaculture and Fisheries	B.Voc
110	Fishery By-Products	commercial Aquaculture	B.Voc
111	Aquaculture engineering	commercial Aquaculture	B.Voc
112	Fish Processing Technology and quality control	commercial Aquaculture	B.Voc
113	Aquatic Pollution	commercial Aquaculture	B.Voc
114	Zoology (live stock management I)	commercial Aquaculture	B.Voc
115	Zoology (live stock management II)	commercial Aquaculture	B.Voc
116	Introduction to Micro biology and microbial diversity	Food Technology	B.Sc Food Technology
117	Microbial physiology and bio chemistry	Food Technology	B.Sc Food Technology
118	nutrition in health	Food Technology	B.Sc Food Technology
119	community nutrition	Food Technology	B.Sc Food Technology
120	Bakery and confectionery	Food Technology	B.Sc Food Technology
121	plant food technology	Food Technology	B.Sc Food Technology
122	dietetics	Food Technology	B.Sc Food Technology
123	food packaging	Food Technology	B.Sc Food Technology
124	Animal Food Technology	Food Technology	B.Sc Food Technology
125	Food Quality and analysis	Food Technology	B.Sc Food Technology
126	Machine learning using python	Software Development	B.Voc

S.No	Name of the New Courses	Department	Program
127	Database Management systems	Software Development	B.Voc
128	Cyber security and Malware analysis	Software Development	B.Voc
129	Internet of things	Software Development	B.Voc
130	Mobile application development	Software Development	B.Voc
131	data ware Housing and data mining	Software Development	B.Voc
132	Computer Essential for Data Science	Data Science	BCA
133	Problem solving and Programming Using "C"	Data Science	BCA
134	Numerical and Statistical Methods	Data Science	BCA
135	Data Structures	Data Science	BCA
136	Data Base management system	Data Science	BCA
137	Statistical methods and their applications	Data Science	BCA
138	Product and brand management	BBA	BBA Digital Marketing
139	Sales Management	BBA	BBA Digital Marketing
140	Marketing of Services	BBA	BBA Digital Marketing
141	Retail Management	BBA	BBA Digital Marketing
142	Advertising Management	BBA	BBA Digital Marketing
143	Media Management	BBA	BBA Digital Marketing
144	Advanced SEO	BBA	BBA Digital Marketing
145	Web Analytics	BBA	BBA Digital Marketing
146	Content Marketing	BBA	BBA Digital Marketing
147	Content Management System	BBA	BBA Digital Marketing
148	SEM Rush	BBA	BBA Digital Marketing
149	Google Search console	BBA	BBA Digital Marketing
150	HTML & CSS	BBA	BBA Digital Marketing

S.No	Name of the New Courses	Department	Program
151	Web Designing and Planing	BBA	BBA Digital Marketing
152	Mobile Marketing	BBA	BBA Digital Marketing
153	E-Mail Marketing	BBA	BBA Digital Marketing
154	Video editing	BBA	BBA Digital Marketing
155	Photography and image editing	BBA	BBA Digital Marketing

A. Ch. [Signature]
IQAC Coordinator

CO-ORDINATOR
IQAC
Ideal College of Arts & Sciences (A)
KAKINADA

T. Subramanya
Principal
Principal
Ideal College of Arts & Sciences (A)
KAKINADA

IDEAL COLLEGE OF ARTS & SCIENCES: KAKINADA

(Autonomous & NAAC B)

Dr. P.V.N.RAJU VIDYAPRANGANAM

B.A./B.Sc. Mathematics COURSE STRUCTURE 2022-23

Semester	Paper	Subject	Hrs	Credits	IA	ES	Total
FIRST YEAR							
SEMESTER I	Paper-I	Differential Equations & Differential Equations Problem Solving Sessions	6	5	40	60	100
SEMESTER II	Paper-II	Solid Geometry & Solid Geometry Problem Solving Sessions	6	5	40	60	100
First Internship							
SECOND YEAR							
SEMESTER III	Paper-III	Abstract Algebra & Abstract Algebra Problem Solving Sessions	6	5	30	70	100
		APSCHE Life Skills Courses Analytical Skills	2	2	-	50	50
SEMESTER IV	Paper-IV	Real Analysis & Real Analysis Problem Solving Sessions	6	5	30	70	100
	Paper-V	Linear Algebra & Real Analysis Problem Solving Sessions	6	5	30	70	100
Second Internship							
THIRD YEAR							
SEMESTER V	Paper- VI (A)	Numerical Methods	6	5	30	70	100
	Paper- VII (A)	Mathematical Special Functions	6	5	30	70	100
	(Or)						
	Paper- VI (B)	Multiple integrals and Applications of Vector Calculus	6	5	30	70	100
	Paper- VII (B)	Integral transforms with Applications	6	5	30	70	100

(Or)							
	Paper- VI (C)	Partial Differential Equations and Fourier Series	6	5	30	70	100
	Paper-VII (C)	Number theory	6	5	30	70	100

SEMESTER VI

Third internship

*Candidate has to choose only one pair from VI(A)&VII(A) or VI(B)&VII(B) or VI(C)&VII(C)

* First internship (April-May after 1st year examinations): Community Service Project.

* Second Internship (April-May after 2nd year examinations): Apprenticeship / Internship / On the job training / In-house Project / Off-site Project.

* Third internship (5th/6thSemester period): Assessment model for the semester long apprenticeship / on the job training / internships during the VI Semester.

**IDEAL COLLEGE OF ARTS AND SCIENCES(A)
PHYSICS COURSE STRUCTURE UNDER CBCS**

2022-2023

Year	Semester	Paper	Title	Marks	Credits	
I	I	I	Mechanics, waves and oscillations	100	04	
			Practical	50	01	
		Skill Development	Electrical Appliances	50	02	
	II	II	II	Waves optics	100	04
				Practical	50	01
			Skill Development	Solar Energy	50	02
			Community Service Project	100	04	
II	III	III	Heat and Thermodynamics	100	03	
			Practical	50	02	
	IV	IV	Electricity magnetism & Electronics.	100	04	
			Practical	50	01	
		V	Modern Physics	100	04	
			Practical	50	01	
		Short Term Internship	100	04		
		III	V	6A	Optical Instruments and Optometry	100
	Practical				50	02
	7A			Optical Imaging and Photography	100	03
Practical				50	02	
6B	Low Temperature physics & Refriseration			100	03	
	Practical			50	02	
7B	Solar Energy & Applications			100	03	
	Practical			50	02	
6C	Applications of Electrics & Elecyronics			100	03	
	Practical			50	02	
7C	Electronic Instrumentation			100	03	
	Practical			50	02	
VI		Long Term Internship	200	12		

IDEAL COLLEGE OF ARTS & SCIENCES : KAKINADA

(Autonomous, NAAC Accredited B, Affiliated to ANUR)

Department of Computer Science

Structure of Computer Science Syllabus 2022-2023

Semester	Paper Code	Subject	Hrs./ Week	Credits	IA	ES	Total
I B.Sc. Computer Science Syllabus under CBCS w.e.f. 2020-2021 Batch							
I	C1	Problem Solving in C	4	3	40	60	100
	C1-P	Problem Solving in C Lab	2	2		50	50
II	C2	Data Structures using C	4	3	40	60	100
	C2-P	Data Structures using C Lab	2	2		50	50
		Community Service Project Work (2 months)		4			100
II B.Sc. Computer Science Syllabus under CBCS w.e.f. 2020-2021 Batch							
III	C3	Database Management Systems	4	3	30	70	100
	C3-P	Database Management Systems Lab	2	2		50	50
	C4	Object Oriented Programming using Java	4	3	30	70	100
IV	C4-P	Object Oriented Programming using Java Lab	2	2		50	50
	C5	Operating Systems	4	3	30	70	100
	C5-P	Operating Systems Lab using C/Java	2	2		50	50
		Short-term Internship (2 months)		4			100
Skill Enhancement Courses (SECs)							
III B.Sc. Computer Science Syllabus under CBCS w.e.f. 2020-2021 Batch							
	6A	Web Interface Designing Technologies	3	3	30	70	100
	6A-P	Web Interface Designing Technologies Lab	3	2		50	50
	7A	Web Applications Development using PHP& MYSQL	3	3	30	70	100
	7A-P	Web Applications Development using PHP& MYSQL Lab	3	2		50	50
V	6B	Internet of Things	3	3	30	70	100
	6B-P	Internet of Things Lab	3	2		50	50
	7B	Application Development using Python	3	3	30	70	100
	7B-P	Application Development using Python Lab	3	2		50	50
	6C	Data science	3	3	30	70	100
	6C-P	Data science Lab	3	2		50	50
	7C	Python for Data science	3	3	30	70	100
	7C-P	Python for Data science Lab	3	2		50	50
VI		Long-term Internship (6 months)		12			200

IDEAL COLLEGE OF ARTS AND SCIENCES(A)
CHEMISTRY COURSE STRUCTURE UNDER CBCS

2022-2023

Year	Semester	Paper	Title	Marks	Credits
I	I	I	Inorganic and Physical Chemistry	100	03
			Practical - I	50	02
	II	II	Organic and General chemistry	100	03
			Practical - II	50	02
			Community Service Project	100	04
II	III	III	Organic chemistry and Spectroscopy	100	03
			Practical - III	50	02
	IV	IV	Inorganic, Organic and Physical chemistry	100	03
			Practical - IV	50	02
		V	Inorganic and Physical Chemistry	100	03
			Practical - V	50	02
		Short Term Internship	100	04	
III	V Any one Pair of VI & VII A, B, C,D,E	VI - A	Synthetic Organic Chemistry	100	03
			Practical - VI - A	50	02
		VII - A	Analysis of Organic Compounds	100	03
			Practical - VII - A	50	02
		VI - B	Analytical methods in Chemistry - 1	100	03
			Practical - VI - B	50	02
		VII - B	Analytical methods in Chemistry - 2	100	03
			Practical - VII - B	50	02
		VI - C	Industrial Chemistry - 1	100	03
			Practical - VI - C	50	02
		VII - C	Industrial Chemistry - 2	100	03
			Practical - VII - C	50	02
		VI - D	Environmental Chemistry	100	03
			Practical - VI - D	50	02
		VII - D	Green Chemistry and Nano Technology	100	03
			Practical - VII - D	50	02
		VI - E	Analytical methods in Chemistry	100	03
			Practical - VI - E	50	02
		VII - E	Cosmetics and Pharmaceutical Chemistry	100	03
			Practical - VII - E	50	02
VI		Long Term Internship	200	12	

IDEAL COLLEGE OF ARTS AND SCIENCES(A)
BOTANY COURSE STRUCTURE UNDER CBCS

2022-2023

Year	Semester	Paper	Title	Hours/ Week	Max. Marks(SEE)	Marks in CIA	Credits
I	I	I	Fundamentals of Microbes and Non-Vascular Plants	04	60	40	03
			Fundamentals of Microbes and Non-Vascular Plants - Lab	03	Max.Marks-50 internal assessment at semester end		02
	II	II	Basics of Vascular Plants and Phytogeography	04	60	40	03
			Basics of Vascular Plants and Phytogeography - Lab	03	Max.Marks-50 External assessment at semester end		02
			Community Service Project	—	100		04
	II	III	III	Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity	04	70	30
Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity - Lab				03	Max.Marks-50 internal assessment at semester end		02
IV		IV	Plant Physiology and Metabolism	04	70	30	03
			Plant Physiology and Metabolism - Lab	03	Max.Marks-50 External		02
		V	V	Cell Biology, Genetics and Plant Breeding	04	70	30
Cell Biology, Genetics and Plant Breeding - Lab				03	Max.Marks-50 External assessment at semester end		02
Short Term Internship			—	100		04	
		VI (A)	VI (A)	Plant Propagation	04	70	30
	Plant Propagation - Lab			03	Max.Marks-50 External		02
	VII (A)	VII (A)	Seed Technology	04	70	30	03
			Seed Technology - Lab	03	Max.Marks-50 External assessment at semester end		02

Year	Semester	Paper	Title	Hours/ Week	Max. Marks(SEE)	Marks in CIA	Credits		
III	V	VI (B)	Vegetable crops-cultivation Practice	04	70	30	03		
			Vegetable crops-cultivation Practice - Lab	03	Max.Marks-50 External		02		
		VII (B)	Vegetable crops-post harvest practices	04	70	30	03		
			Vegetable crops-post harvest practices - lab	03	Max.Marks-50 External		02		
		VI (C)	Plant tissue culture	04	70	30	03		
			Plant tissue culture - Lab	03	Max.Marks-50 External assessment at semester end		02		
		VII (C)	Mushroom Cultivation	04	70	30	03		
			Mushroom Cultivation - Lab	03	Max.Marks-50 External assessment at semester end		02		
		VI (D)	Gardening, Landscaping	04	70	30	03		
			Gardening, Landscaping - lab	03	Max.Marks-50 External assessment at semester end		02		
		VII (D)	Agro Forestry	04	70	30	03		
			Agro Forestry - Lab	03	Max.Marks-50 External assessment at semester end		02		
			VI		Long Term Internship	-	200		12

IDEAL COLLEGE OF ARTS & SCIENCES

(Autonomous, NAAC Accredited B)
Dr. PVN RAJU VIDYAPRANGANAM
Samalkot Road, KAKINADA

ZOOLOGY COURSE STRUCTURE UNDER CBCS 2022-2023

YEAR	SEMESTER	PAPER	TITLE	MARKS	CREDI TS	
I	I	I	Animal Diversity – Biology of Non - chordates	100	03	
			Practical - I	50	02	
	II	II	Animal Diversity – Biology of chordates	100	03	
			Practical - II	50	02	
				Community Service Project	100	04
	II	III	III	Cell biology, Genetics, Molecular Biology & Evolution	100	03
Practical - III				50	02	
IV		IV	Animal Physiology, cellular metabolism and embryology	100	03	
			Practical - IV	50	02	
		V	Immunology & Animal Biotechnology	100	03	
			Practical - V	50	02	
			Short Term Internship	100	04	
III		V	VIA	Sustainable Aquaculture Management	100	03
			Practical	50	2	
	VIIA		Post-Harvest Technology of Fish and Fisheries	100	03	
			Practical	50	2	
	(OR)					
	V	VIB	Live Stock Management – I (Biology of Dairy Animals)	100	03	
			Practical	50	2	
		VIIB	Live Stock Management – II (Dairy Production and Management)	100	03	

III	(OR)					
	V	VIC	Poultry Management – I (Poultry Farming)	100	03	
			Practical	50	2	
	VIIC	VIIC	Poultry Management – II (Poultry Production and Management)	100	03	
			Practical	50	2	
	(OR)					
	V	VID	Seri Culture – I	100	03	
			Practical	50	2	
		VIID	VIID	Seri Culture – II	100	03
				Practical	50	2
VI		Long Term Internship	200	12		

**IDEAL COLLEGE OF ARTS AND SCIENCES(A)
HISTORY COURSE STRUCTURE UNDER CBCS**

2022-2023

Year	Semester	Title	Max. Marks	Credits
I	I	ANCIENT INDIAN HISTORY & CULTURE	100	04
	II	Medieval Indian History & Culture	100	04
		Community Service Project	100	04
II	III	Modern Indian History	100	04
	IV	History and Culture of Andhra		
		History of Modern World	100	04
		Short Term Internship	100	04
III	V	Tourism and Hospitality Services	100	04
		Tourism Guidance and operating skills	100	04
		Long Term Internship	200	12

IDEAL COLLEGE OF ARTS AND SCIENCES

(Autonomous & NAAC B)

Dr.P.V.N.RAJU VIDYAPRANGANAM

Samalkot Road – Kakinada

DEPARTMENT OF ECONOMICS**B.A ECONOMICS COURSE STRUCTURE 2022-2023**

YEAR	Course	Semester	Title of the Paper	Hours / Week	Credits	Marks		
						Internals	Semester	
First Year	1	I	Micro Economics Analysis	5	4	40	60	
	2	II	Macro Economics Analysis	5	4	40	60	
			Community Service Project		4	100		
Second Year	3	III	Development Economics	5	4	30	70	
	4	IV	Economic Development in India and Andhra Pradesh	5	4	30	70	
	5	IV	Statistical Methods for Economics	5	4	30	70	
			Short Term Internship		4	100		
Third Year	6A	V	Rural Entrepreneurship	5	4	25	75	
	7A	V	Farmer Producer Organisation	5	4	25	75	
	(OR)							
	6B	V	Urban Entrepreneurship and MSMEs	5	4	25	75	
	7B	V	Retail and Digital Marketing	5	4	25	75	
	(OR)							
	6C	V	Insurance Services	5	4	25	75	
	7C	V	Banking and Financial Services	5	4	25	75	
	(OR)							
	6D	V	Inferential Statistics and Software Packages	5	4	25	75	
	7D	V	Project Designing and Report Writing	5	4	25	75	
		VI	Long Term Internship		12	200 Marks		

IDEAL COLLEGE OF ARTS AND SCIENCES(A)
POLITICAL SCIENCE COURSE STRUCTURE UNDER CBCS
2022-2023

Year	Semester	Title	Max. Marks	Credits
I	I	Introduction to Political Science	100	04
	II	Basic Organs of the Government	100	04
		Community Service Project	100	04
II	III	Indian Government and Politics	100	04
	IV	Indian Political Process		
		Western Political Thought	100	04
		Short Term Internship	100	04
III	V	E - Governance	100	04
	VI	Local Administration	100	04
		Long Term Internship	200	12

IDEAL COLLEGE OF ARTS AND SCIENCES(A)
COMMERCE COURSE STRUCTURE UNDER CBCS

2022-2023

Year	Semester	course No	Title	Max. Marks	Credits
I	I	1A	Fundamentals of Accounting	100	04
		1B	Business Organization and Management	100	04
		1C	Business Environment	100	04
	II	2A	Financial Accounting	100	04
		2B	Business Economics	100	04
		2C	Banking Theory & Practice	100	04
			Community Service Project	100	04
II	III	3A	Advanced Accounting	100	04
		3B	Business Statistics	100	04
		3C	Marketing	100	04
	IV	4A	Corporate Accounting	100	04
		4B	Cost and Management Accounting	100	04
		4C	Income Tax	100	04
		4D	Business Laws	100	04
		4E	Auditing	100	04
		4F	Goods and service tax	100	04
			Short Term Internship	100	04
III	V	16A	Advanced Corporate Accounting	100	04
		16B	Advertising and Media Planning	100	04
		16C	Digital Marketing	100	04
		17A	Software Solutions to Accounting	100	04
		17B	Sales Promotion and Practice	100	04
		17C	Service Marketing	100	04
		18A	Management Accounting	100	04
		18B	Logistics Services and Practice	100	04
		18C	Income Tax Procedure & Practice	100	04
		19A	Cost Control Techniques	100	04
		19B	EXIM Procedure and practice	100	04
		19C	GST Procedure & Practice	100	04
		20A	Stock Markets	100	04
		20B	Life Insurance with Practice	100	04
		20C	E Commerce	100	04
		21A	Stock Market Analysis	100	04
		21B	General Insurance with practice	100	04
		21C	E filing	100	04
		VI		LONG TERM INTERNSHIP	200

IDEAL COLLEGE OF ARTS AND SCIENCES
(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B)
DR.P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
B. Voc Agriculture Syllabus (w.e.f:2020-21A.B)

Skill Enhancement Courses (SECs) for Semester -V,
From 2022-23(Syllabus-Curriculum)

Structure of SECs for Semester-V

(To choose One pair from the Four alternate pairs of SECs)

Semester No,	Course No.	Course Name	Course type (T/L/P)	Hrs./week	Credits	Max. Marks Cont/Int/Mid Assessment	Max. Marks Sem-end Exam	Total
THIRD YEAR								
SEMESTER -V	1	Analytical Methods in Chemistry – 1 (Elective from common B.Sc. syllabus) *	T	4	4	30	70	100
	2	Analytical Methods in Chemistry - 1(Elective from common B.Sc. syllabus) *	P	2	1	-	50	50
	3	Analytical Methods in Chemistry – 2(Elective from common B.Sc. syllabus) *	T	4	4	30	70	100
	4	Analytical Methods in Chemistry – 2 (Elective from common B.Sc. syllabus) *	P	2	1	-	50	50
	5	Principles of seed technology	T	4	4	30	70	100
	6	Principles of seed technology	P	2	1	-	50	50
	7	Disease of field crops and their management	T	4	4	30	70	100
	8	Disease of field crops and their management	P	2	1	50	50	50
	9	Weed management	T	4	4	30	70	100
	10	Weed management	P	2	1	-	50	50
	11	Plant biotechnology / & Landscaping	T	4	4	30	70	100
	12	On Job Training	P	2	1	-	50	50
		Total		36	30		50	900

(Signature)

A.S. Chintamani

D. Rishitha

IDEAL COLLEGE OF ARTS AND SCIENCES
(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B)
DR.P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
B. Voc Sustainable Agriculture Syllabus (w.e.f:2020-21A.B)

Skill Enhancement Courses (SECs) for Semester -V,
From 2022-23(Syllabus-Curriculum)

Structure of SECs for Semester-V

(To choose One pair from the Four alternate pairs of SECs)

Semester No,	Course No.	Course Name	Course type (T/L/P)	Hrs./week	Credits	Max. Marks Cont/Int/Mid Assessment	Max. Marks Sem-end Exam	Total
THIRD YEAR								
SEMESTER -V	1	Analytical Methods in Chemistry – 1 (Elective from common B.Sc. syllabus) *	T	4	4	30	70	100
	2	Analytical Methods in Chemistry - 1(Elective from common B.Sc. syllabus) *	P	2	1	-	50	50
	3	Analytical Methods in Chemistry – 2(Elective from common B.Sc. syllabus) *	T	4	4	30	70	100
	4	Analytical Methods in Chemistry – 2 (Elective from common B.Sc. syllabus) *	P	2	1	-	50	50
	5	Principles of seed technology	T	4	4	30	70	100
	6	Principles of seed technology	P	2	1	-	50	50
	7	Disease of field crops and their management	T	4	4	30	70	100
	8	Disease of field crops and their management	P	2	1	50	50	50
	9	Weed management	T	4	4	30	70	100
	10	Weed management	P	2	1	-	50	50
	11	Principles of Landscape Gardening	T	4	4	30	70	100
	12	On Job Training	P	2	1	-	50	50
	Total			36	30			900

BSA

Deef
C. Sankaraj
D. Rishitha

IDEAL COLLEGE OF ARTS AND SCIENCES
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA

Course: B. Sc Agriculture and Rural Development

Course structure and syllabi:

w.e from 2022-23 Admitted Batch

Semester -I

S. No	Name of the Subject	Total Marks	Mid. Sem Exam	Sem. End Exam	Teaching Hours	Credits
1	English	100	40	60	4	3
2	Telugu	100	40	60	4	3
3	BCA, Life Skill PLANT NURSERy	50	---	50	2	2
4	Skill Development	50	---	50	2	2
5	Principles of Agronomy	100	40	60	4	4
6	Fundamentals of Horticulture	100	40	60	4	4
7	Fundamentals of rural sociology and Educational Psychology	100	40	60	4	4
8	Principles of Agronomy (Practical)	50	---	50	2	1
9	Fundamentals of Horticulture (Practical)	50	---	50	2	1
10	Fundamentals of rural sociology and Educational Psychology (Practical)	50	---	50	2	1
		750	200	550	30	25

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U.S. Priya
G.V.V. Sai Pradeep

IDEAL COLLEGE OF ARTS AND SCIENCES
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA

Course: B. Sc Agriculture and Rural Development

Course structure and syllabus:

w.e from 2022-23 Admitted Batch

Semester -II

S. No	Name of the Subject	Total Marks	Mid. Sem Exam	Sem. End Exam	Teaching Hours	Credits
1	English	100	40	60	4	3
2	Telugu	100	40	60	4	3
3	Life skill	50	---	50	2	2
4	Skill development Skill	50 50	---	50	2	2
5	Fundamentals of Soil Science	100	40	60	4	4
6	Principles of genetics and plant Breeding	100	40	60	4	4
7	Fundamentals of Agriculture Extension	100	40	60	4	4
8	Fundamentals of Soil Science Practical	50	---	50	2	1
9	Principles of genetics and plant Breeding Practical	50	---	50	2	1
10	Fundamentals of Agriculture Extension Practical	50	---	50	2	1
11	TOTAL	800	200	550	32	27

Ref

BS

U.S. Priya

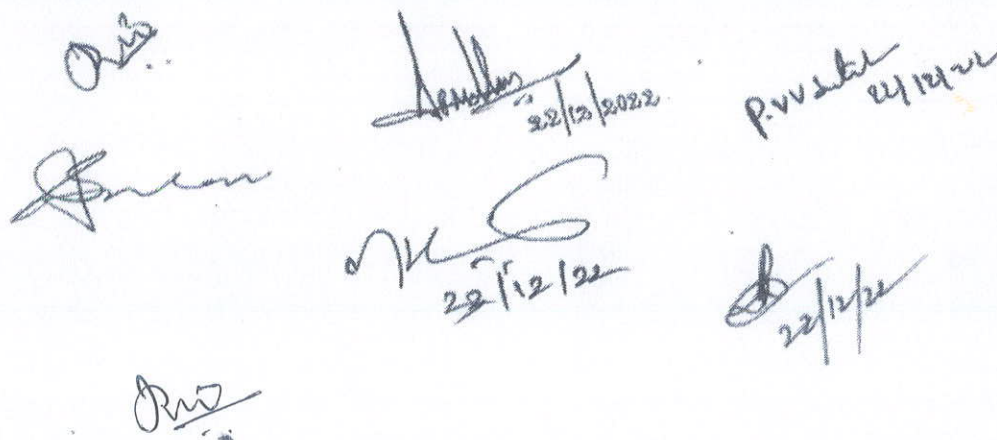
G.V.V. Sri Prasad

IDEAL COLLEGE OF ARTS AND SCIENCES(A)
Bachelor of Vocational: INDUSTRIAL AQUACULTURE AND FISHERIES
Course structure and syllabi: w.e from 2022-2023 Admitted Batch
B.Voc. INDUSTRIAL AQUACULTURE AND FISHERIES
Semester V, from 2022-23
(Syllabus-Curriculum)

III Year; Semester V								
S e m	Course no	Course name	Course type (T/L/P)	Hrs/Week (Sciences 4+2)	Credits (Science 4+1)	Each course Evaluation		
						MID	SEM	Total
V	1	Zoology (live stock management I) *	T	4	4	30	70	100
	2	Zoology (practical) *	L	2	1	0	50	50
	3	Zoology (live stock management II) *	T	4	4	30	70	100
	4	Zoology (practical) *	L	2	1	0	50	50
	5	Fishery By-Products	T	4	4	30	70	100
	6	Fishery By-Products Practical	L	2	1	0	50	50
	7	Fish Processing Technology and Quality Control	T	4	4	30	70	100
	8	Fish Processing Technology and Quality Control Practical	L	2	1	0	50	50
	9	Aquaculture Engineering	T	4	4	30	70	100
	10	Aquaculture Engineering Practical	L	2	1	0	50	50
	11	Fisheries management, economics and marketing (No Practical)	T	4	4	30	70	100
	12	On Job Training	L	2	1	0	50	50
	Total			36	30			900

SEMESTER VI

THIRD INTERNSHIP



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 [Signature] 24/12/22

IDEAL COLLEGE OF ARTS AND SCIENCES(A)
Bachelor of Vocational: Commercial aquaculture
Course structure and syllabi: w.e from 2022-2023 Admitted Batch
B.Voc. Commercial aquaculture

Semester V, from 2022-23
(Syllabus-Curriculum)

III Year; Semester V								
S e m	Course no	Course name	Course type (T/L/P)	Hrs/Week (Sciences 4+2)	Credits (Science 4+1)	Each course Evaluation		
						MID	SEM	Total
V	1	Zoology (live stock management I) * → 13.5B	T	4	4	30	70	100
	2	Zoology (practical) * → 12.5C	L	2	1	0	50	50
	3	Zoology (live stock management II) *	T	4	4	30	70	100
	4	Zoology (practical) *	L	2	1	0	50	50
	5	Fishery By-Products	T	4	4	30	70	100
	6	Fishery By-Products Practical	L	2	1	0	50	50
	7	Fish Processing Technology and Quality Control	T	4	4	30	70	100
	8	Fish Processing Technology and Quality Control Practical	L	2	1	0	50	50
	9	Aquaculture Engineering	T	4	4	30	70	100
	10	Aquaculture Engineering Practical	L	2	1	0	50	50
	11	Aquatic Pollution (No Practical)	T	4	4	30	70	100
	12	On Job Training	L	2	1	0	50	50
		Total		36	30			900

IDEAL COLLEGE OF ARTS AND SCIENCES

(Autonomous & NAAC-B)

DR.P.V.N RAJU VIDYAPRANGANAM

KAKINADA-533002

Department of Food Science and Technology

Course structure under CBCS (2022-23)

B.Sc. Food Technology

Year	Semester	Title	Max.Marks	Credits	
I	I	Food production trends	100	04	
		Chemistry 1	100	04	
		Microbiology 1	100	04	
	II	II	Basic principles of food preservation	100	04
			Chemistry 2	100	04
			Microbiology 2	100	04
		Community service project	100	04	
	II	III	Unit operations and material handling	100	04
Chemistry 3			100	04	
Nutrition in health			100	04	
IV		III	Food quality management	100	04
			Chemistry 4	100	04
		IV	Community nutrition	100	04
			Food additives	100	04
			Chemistry 5	100	04
			Food packaging	100	04
			apprenticeship	100	04
III	V	Bakery and confectionary	100	04	
		Plant food technology	100	04	
		Dietetics	100	04	
		Food packaging	100	04	
		Animal food technology	100	04	
		Food quality and analysis	100	04	
	VI	LONG TERM INTERNSHIP (6 months)	200	12	

P. V. N. Raju

IDEAL COLLEGE OF ARTS AND SCIENCES
KAKINADA

Department of Computer Science

Course structure and syllabi: w. e. from 2020 -21 Admitted Batch.

B.Voc - Software Development (Third Year).

Semester - V

Structure of SECs for Semester-V

(To choose One pair from the Four alternate pairs of SECs)

S. No.	Paper Code	Subject	Hours per week	Credits	Max. Marks		Total Marks
					Internal	External (University Exams)	
1	SD-51	Machine Learning Using Python	4	4	30	70	100
	SD-51P(Lab)	ML Using Python Lab	2	1	--	50	50
2	SD-52	Database Management Systems	4	4	30	70	100
	SD-52P(Lab)	Database Management Systems Lab	2	1	--	50	50
3	SD-53	Cyber Security and Malware Analysis	4	4	30	70	100
	SD-53P(Lab)	Cyber Security and Malware Analysis Lab	2	1	--	50	50
4	SD-54	Internet of Things	4	4	30	70	100
	SD-54P(Lab)	Internet of Things Lab	2	1	--	50	50
5	SD-55	Mobile Application Development	4	4	30	70	100
	SD-55P(Lab)	Mobile Application Development Lab	2	1	--	50	50
6	SD-56	Data ware Housing and Data Mining	4	4	30	70	100
	SD-56P(Lab)	Data ware Housing and Data Mining Lab.	2	1	--	50	50
TOTAL			36	30	180	720	900

- 1) Note: FIRST and SECOND PHASES (2 spells) of APPRENTICESHIP between 1st and 2nd year and between 2nd and 3rd year (two summer vacations)

- 2) THIRD PHASE of APPRENTICESHIP Entire 5th / 6th Semester

Note:- Syllabus Structure old format updated in the Next Page.

G. Subbalakshmi
Danthi
GSRK Thy

P. K. Reddy
CHAIRMAN

UNIVERSITY NOMINEE

IDEAL COLLEGE OF ARTS & SCIENCES (AUTONOMOUS)
Department of Computer Science & Applications
BACHELOR OF COMPUTER APPLICATIONS– DATA SCIENCE

Under CBCS


Course Structure and Scheme of Examination w.e.f. 2022-23

Semester I

Paper Code	Course	Teaching Hours	Sem End Exam	Mid Sem Exam*	Total Marks	Credits
BCA1.1.1	First Language-English-I	4	60	40	100	3
BCA1.1.2	Second Language-Hindi/Sanskrit-I	4	60	40	100	3
BCA1.1.3	Life Skill Course – I (Human Values & Professional Ethics)	2	50	0	50	2
BCA1.1.4	Skill Development Course – I (Electrical Appliances)	2	50	0	50	2
BCA1.1.5	Computer Essentials for Data Science	5	60	40	100	4
BCA1.1.6	Problem Solving and Programming Using “C”	5	60	40	100	4
BCA1.1.7	Numerical and Statistical Methods	5	60	40	100	4
BCA1.1.8	Computer Essentials for Data Science Lab	2	50	0	50	1
BCA1.1.9	Problem Solving and Programming Using “C” Lab	2	50	0	50	1
BCA1.1.10	Numerical and Statistical Methods Lab	2	50	0	50	1
Total		33	550	200	750	25

X G. Subbalakshmi
 Bant
 G. Subbalakshmi

P. V. N. L.
CHAIRMAN


UNIVERSITY NOMINEE

IDEAL COLLEGE OF ARTS & SCIENCES (AUTONOMOUS)

Department of Computer Science & Applications

BACHELOR OF COMPUTER APPLICATIONS- DATA SCIENCE

Under CBCS

Course Structure and Scheme of Examination w.e.f. 2022-23


Semester II

Paper Code	Course	Teaching Hours	Sem End Exam	Mid Sem Exam *	Total Marks	Credits
BCA1.2.1	First Language-English-II	4	60	40	100	3
BCA1.2.2	Second Language-Telugu	4	60	40	100	3
BCA1.2.3	Life Skill Course – II (Information & Communication Technology (ICT))	2	50	0	50	2
BCA1.2.4	Skill Development Course – II (Business Communication)	2	50	0	50	2
BCA1.2.5	Skill Development Course – III (Advertising)	2	50	0	50	2
BCA1.2.6	Data Structures	5	60	40	100	4
BCA1.2.7	Database Management Systems	5	60	40	100	4
BCA1.2.8	Statistical Methods & their Applications	5	60	40	100	4
BCA1.2.9	Data Structures Lab	2	50	0	50	1
BCA1.2.10	Database Management Systems Lab	2	50	0	50	1
BCA1.2.11	Statistical Methods & their Applications Lab	2	50	0	50	1
BCA1.2.12	Internship (Community Service Project)	–	100	0	100	4
Total		35	700	200	900	31

Note: Internship (Community Service Project) Should be completed in between Semester -II and Semester -III. (Summer Vacation)

X C. Subbalakshmi

Dhanu
GSL


CHAIRMAN


UNIVERSITY NOMINEE

IDEAL COLLEGE OF ARTS AND SCIENCES

(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B)

DR. P.V.N. RAJU VIDYAPRANGANAM

KAKINADA

BBA (Digital Marketing) COURSE STRUCTURE)

Semester – V

BBA Digital Marketing V Semester syllabus Skill Enhancement Courses							
Group A Subjects: Management Subjects							
S.NO	COURSE	NAME OF THE SUBJECT	TOTAL MARKS	MID SEM EXAM*	SEM END EXAM	TEACHING HOURS	CREDITS
1	6A	Product & Brand Management	100	30	70	5	4
2	7A	Sales Management	100	30	70	5	4
3	6B	Marketing of Services	100	30	70	5	4
4	7B	Retail Management	100	30	70	5	4
5	6C	Advertising Management	100	30	70	5	4
6	7C	Media Management	100	30	70	5	4
Group B Subjects: Digital Marketing Subjects							
S.NO	COURSE	NAME OF THE SUBJECT	TOTAL MARKS	MID SEM EXAM*	SEM END EXAM	TEACHING HOURS	CREDITS
1	6A	Content Marketing	100	30	70	5	4
2	7A	Content Management System	100	30	70	5	4
3	6B	Advanced SEO	100	30	70	5	4
4	7B	Web Analytics	100	30	70	5	4
5	6C	SEM Rush	100	30	70	5	4
6	7C	Google Search Console	100	30	70	5	4
Group C Subjects: Web Based Applications							
S.NO	COURSE	NAME OF THE SUBJECT	TOTAL MARKS	MID SEM EXAM*	SEM END EXAM	TEACHING HOURS	CREDITS
1	6A	Mobile Marketing	100	30	70	5	4
2	7A	E-Mail Marketing	100	30	70	5	4
3	6B	Video Editing	100	30	70	5	4
4	7B	Photography & Image Editing	100	30	70	5	4
5	6C	HTML & CSS	100	30	70	5	4
6	7C	WebDesign&Planning	100	30	70	5	4

K. An. N. Visal .. J. P. N. ... M. S. ...

IDEAL COLLEGE OF ARTS AND SCIENCES
AUTONOMOUS & NAAC B
Dr. P.V.N RAJU VIDYAPRANGANAM
SAMALKOT ROAD, KAKINADA

LIST OF NEW COURSES

Academic Year - 2021 - 2022

S.No	Name of the New Courses	Department	Program
1	A Course in Conversation Skills	English	BA, B.Com, B.Sc.
2	స్పృజన భారతి	Telugu	BA, B.Com, B.Sc.
3	Differential Equations	Mathamatics	B.Sc (MCCs)
4	Solid Geometry	Mathamatics	B.Sc (MCCs)
5	Linear Algebra	Mathamatics	B.Sc (MCCs), MPC
6	Heat and Thermodynamics	Physics	MPC, MPCs
7	Electricity Magnesim & Electronics	Physics	MPC, MPCs
8	Modern Physics	Physics	MPC, MPCs
9	Database Management System	Computer Science	B.Sc.(M.P.CS)
10	Object Oriented Programming using Java	Computer Science	B.Sc.(M.P.CS)
11	Operating System	Computer Science	B.Sc.(M.P.CS)
12	Problem Solving in C	Computer Science	B.Sc.(M.P.CS)
13	Data Structures using C	Computer Science	B.Sc.(M.P.CS)
14	Organic Chemistry and Spectroscopy	Chemistry	B.Sc. (MPC, BZC)
15	Inorganic, Organic and Physical Chemistry	Chemistry	B.Sc. (MPC, BZC)
16	Inorganic and Physical Chemistry	Chemistry	B.Sc. (MPC, BZC)
17	Inorganic and Physical chemistry	Chemistry	B.Sc. (MCCS)
18	Organic and General chemistry	Chemistry	B.Sc. (MCCS)
19	Anatomy and embryology, Plant Ecology and biodiversity	Botany	B.Sc., B.Z.C
20	Plant Physiology and Metabolism	Botany	B.Sc., B.Z.C
21	Cell Biology, Genetics & Plant Breeding	Botany	B.Sc., B.Z.C

S.No	Name of the New Courses	Department	Program
22	Cell Biology, Genetics and Molecular Biology and Evolution	Zoology	B.Sc., B.Z.C
23	Animal Physiology, Cellular Metabolism and Embryology	Zoology	B.Sc., B.Z.C
24	Immunology and Animal Biotechnology	Zoology	B.Sc., B.Z.C
25	Modern Indian History and culture	History	B.A
26	History and culture of Modern Andhra Pradesh	History	B.A
27	History of Modern World	History	B.A
28	Development Economics	Economics	B.A
29	Economic Development in India and Andhra Pradesh	Economics	B.A
30	Statistical methods for Economics	Economics	B.A
31	Indian Government and Politics	Political Science	B.A
32	Indian Political Process	Political Science	B.A
33	Indian Political Thought	Political Science	B.A
34	Advanced Accounting	Commerce	B. Com
35	Business Statistics	Commerce	B. Com
36	Marketing	Commerce	B. Com
37	Corporate Accounting	Commerce	B. Com
38	Cost and Management Accounting	Commerce	B. Com
39	Income Tax	Commerce	B. Com
40	Business Law	Commerce	B. Com
41	Auditing	Commerce	B. Com
42	Goods and Service Tax	Commerce	B. Com
43	Fundamentals of Accounting (1A)	Commerce	B. Com (CA)
44	Business Organisation and Management (1B)	Commerce	B. Com (CA)
45	INFORMATION TECHNOLOGY	Commerce	B. Com (CA)
46	Finacial Accounting (2A)	Commerce	B. Com (CA)
47	Business Economics (2B)	Commerce	B. Com (CA)
48	E-COMMERCE AND WEB DESIGNING	Commerce	B. Com (CA)
49	Agronomy of Field crops	Agriculture	B.Voc
50	Manures, fertilizers and soil fertility management	Agriculture	B.Voc
51	Agriculture economics and farm management	Agriculture	B.Voc

S.No	Name of the New Courses	Department	Program
52	Pests of Field crops and their management	Agriculture	B.Voc
53	water management	Agriculture	B.Voc
54	principles of organic forming	Agriculture	B.Voc
55	farm power and machinery	Agriculture	B.Voc
56	Fundamentals of Organic Farming	Sustainable Agriculture	B.Voc
57	Landscape designing and gardening	Sustainable Agriculture	B.Voc
58	commercial Enterprises	Sustainable Agriculture	B.Voc
59	Pests of field crops and vegetable crops	Sustainable Agriculture	B.Voc
60	Major flower crop production in India	Sustainable Agriculture	B.Voc
61	Tropical and sub tropical fruit production	Sustainable Agriculture	B.Voc
62	Post harvest management of Horticulture	Sustainable Agriculture	B.Voc
63	Agronomy of Field crops	Sustainable Agriculture	B.Voc
64	Manures, fertilizers and soil fertility management	Sustainable Agriculture	B.Voc
65	Agriculture economics and farm management	Sustainable Agriculture	B.Voc
66	Pest of Field crops and their management	Sustainable Agriculture	B.Voc
67	water management	Sustainable Agriculture	B.Voc
68	principles of organic forming	Sustainable Agriculture	B.Voc
69	farm power and machinery	Sustainable Agriculture	B.Voc
70	Introduction to agronomy	Sustainable Agriculture	B.Voc
71	introduction to Soil science	Sustainable Agriculture	B.Voc
72	Principles of Plant Breeding	Sustainable Agriculture	B.Voc
73	Introduction to Entomology	Sustainable Agriculture	B.Voc
74	Introduction to plant pathology	Sustainable Agriculture	B.Voc
75	Principles of Crop Physiology	Sustainable Agriculture	B.Voc
76	Introduction to agronomy	Agriculture	B.Voc

S.No	Name of the New Courses	Department	Program
77	introduction to Soil science	Agriculture	B.Voc
78	Principles of Plant Breeding	Agriculture	B.Voc
79	Introduction to Entomology	Agriculture	B.Voc
80	Introduction to plant pathology	Agriculture	B.Voc
81	Principles of Crop Physiology	Agriculture	B.Voc
82	Chemistry(Inorganic, Organic and Physical Chemistry)	Industrial Aquaculture and fisheries	B.Voc
83	Zoology(Animal Bio - technology)	Industrial Aquaculture and fisheries	B.Voc
84	Fish Processing Technology and Quality Control	Industrial Aquaculture and fisheries	B.Voc
85	Aquatic Pollution	Industrial Aquaculture and fisheries	B.Voc
86	Fish Policy, Laws and Disaster Management	Industrial Aquaculture and fisheries	B.Voc
87	Environmental Chemistry	Industrial Aquaculture and fisheries	B.Voc
88	Zoology (Immunology)	Industrial Aquaculture and fisheries	B.Voc
89	Fisheries Economics and Marketing	Industrial Aquaculture and fisheries	B.Voc
90	Aquaculture Engineering	Industrial Aquaculture and fisheries	B.Voc
91	Fisheries Co-Operative and Marketing	Industrial Aquaculture and fisheries	B.Voc
92	Capture Fisheries	Industrial Aquaculture and fisheries	B.Voc
93	Fish Seed Production	Industrial Aquaculture and fisheries	B.Voc
94	Zoology - 4	Industrial Aquaculture and fisheries	B.Voc

S.No	Name of the New Courses	Department	Program
95	Zoology - 5	Industrial Aquaculture and fisheries	B.Voc
96	Fish Genetics and Aquaculture Bio - technology	Industrial Aquaculture and fisheries	B.Voc
97	Fish pathology and immunology	Industrial Aquaculture and fisheries	B.Voc
98	Ornamental fish culture	Industrial Aquaculture and fisheries	B.Voc
99	Larval nutrition and culture of fish food organisms	Industrial Aquaculture and fisheries	B.Voc
100	Biology of fishes	Industrial Aquaculture and fisheries	B.Voc
101	Fresh water aquaculture	Industrial Aquaculture and fisheries	B.Voc
102	Biology of fin Shell fishes	Industrial Aquaculture and fisheries	B.Voc
103	Fishing methods	Industrial Aquaculture and fisheries	B.Voc
104	Zoology	Commercial Aquaculture	B.Voc
105	Capture Fisheries	Commercial Aquaculture	B.Voc
106	Aquaculture Nutrition	Commercial Aquaculture	B.Voc
107	Fish Seed Production	Commercial Aquaculture	B.Voc
108	Physiology, Cellular Metabolism & Embryology (Zoology-4)	Commercial Aquaculture	B.Voc
109	Immunology & Animal Biotechnology (Zoology-5)	Commercial Aquaculture	B.Voc
110	Fish genetics and Aquaculture Biotechnology	Commercial Aquaculture	B.Voc
111	Fish Pathology and Immunology	Commercial Aquaculture	B.Voc
112	Ornamental Fish Culture	Commercial Aquaculture	B.Voc

S.No	Name of the New Courses	Department	Program
113	Larval Nutrition & Culture of Fish food Organisms	Commercial Aquaculture	B.Voc
114	Biology of Fishes	Commercial Aquaculture	B.Voc
115	Fresh water Aquaculture	Commercial Aquaculture	B.Voc
116	Biology of Shell Fish	Commercial Aquaculture	B.Voc
117	Fishing Methods	Commercial Aquaculture	B.Voc
118	Processing of milk and milk products	Food Technology	B.Sc
119	Processing of Cereals, Pulses and oil seeds	Food Technology	B.Sc
120	Food Science and Nutrition - 2	Food Technology	B.Sc
121	Food Business Management	Food Technology	B.Sc
122	Food safety and microbial standards	Food Technology	B.Sc
123	New Product development and sensory science	Food Technology	B.Sc
124	food engineering	Food Technology	B.Sc
125	Processing Technology of Fruits and Vegetables	Food Technology	B.Sc
126	Food Additives	Food Technology	B.Sc
127	Numerical Analysis	Softwate Development	B.Voc
128	Data Structures using C	Softwate Development	B.Voc
129	Introduction to Phython Programming	Softwate Development	B.Voc
130	Objected oriented Programming through Java	Softwate Development	B.Voc
131	Advanced Numerical Analysis	Softwate Development	B.Voc
132	Discrete Mathematical Structures	Softwate Development	B.Voc
133	Objected Oriented Software Engineering	Softwate Development	B.Voc
134	Operating System	Softwate Development	B.Voc
135	Web Programming	Softwate Development	B.Voc
136	Basics of Cloud Computing	Softwate Development	B.Voc
137	Organizational Behaviour	Digital Marketing	BBA

S.No	Name of the New Courses	Department	Program
138	Search Engine Optimization	Digital Marketing	BBA
139	Financial Management	Digital Marketing	BBA
140	Training and Development	Digital Marketing	BBA
141	Business Law	Digital Marketing	BBA
142	Micro. Small. Medium Management	Digital Marketing	BBA
143	International Business	Digital Marketing	BBA
144	Search Engine Marketing & Affiliate Marketing	Digital Marketing	BBA
145	Training and Development	Digital Marketing	BBA

A. ch. Sravanth

IQAC Coordinator

CO-ORDINATOR
IQAC
Ideal College of Arts & Sciences (A)
KAKINADA

T. Subbarama

Principal

Principal

**Ideal College of Arts & Sciences (A)
KAKINADA**

**IDEAL COLLEGE OF ARTS AND SCIENCES (A)
ENGLISH COURSE STRUCTURE UNDER CBCS
2021-2022**

Year	Semester	Title	Max Marks	Credits
I	I	Skill Enrich-I English Praxis Course -I (A Course in Communication & Soft skills)	100	03
	II	Skill Enrich-II English Praxis Course -II (A Course in Reading and Writing skills)	100	03
II	III	Praxis Pro English Praxis Course -III (A Course in Conversational skills)	100	03

IDEAL COLLEGE OF ARTS AND SCIENCES(A)
TELUGU COURSE STRUCTURE UNDER CBCS
2021-2022

Year	Semester	Title	Max. Marks	Credits
I	I	Kavya Sudha	100	03
	II	Adunika Bharathi	100	03
II	III	Srujana Bharathi	100	03

IDEAL COLLEGE OF ARTS & SCIENCES: KAKINADA

(A.P. Govt. Aided, Autonomous & NAAC B)

Dr. P.V.N.RAJU VIDYAPRANGANAM

B.A./B.Sc. Mathematics COURSE STRUCTURE 2021-22

Semester	Paper	Subject	Hr	Credit	IA	ES	Total
FIRST YEAR							
SEMESTER I	Paper-I	Differential Equations & Differential Equations Problem Solving	6	5	30	70	100
SEMESTER II	Paper-II	Solid Geometry & Solid Geometry Problem Solving Sessions	6	5	30	70	100
Community Service Project							
SECOND YEAR							
SEMESTER III	Paper-III	Abstract Algebra & Abstract Algebra Problem Solving	6	5	30	70	100
SEMESTER IV	Paper-IV	Real Analysis & Real Analysis Problem Solving Sessions	6	5	30	70	100
		Linear Algebra & Real Analysis Problem Solving Sessions	6	5	30	70	100
Short-term Internship							
THIRD YEAR							
SEMESTER V	Paper-V	Ring Theory & Vector Calculus & Ring Theory & Vector Calculus Problem	6	5	25	75	100
SEMESTER V	Paper-VI	Linear Algebra & Linear Algebra Problem Solving Sessions	6	5	25	75	100
SEMESTER VI	Paper-VII	Elective (any one)* A. Laplace-Transformations B. Numerical Analysis C. Number Theory D. Graph Theory	5	5	25	75	100
		Cluster Electives: *** VIII A. 1. Integral Transformations & Problem Solving Sessions	5	5	25	75	100
	Paper-VIII	2. Special Functions & Problem Solving Sessions	5	5	25	75	100
		3. Project	5	5	50	50	100
		VIII B. 1. Advanced Numerical Analysis & Problem Solving Sessions	5	5	25	75	100
		2. special Functions & Problem Solving Sessions	5	5	25	75	100
		3. Project	5	5	50	50	100
		VIII C. 1. Principles of Mechanics & Problem Solving Sessions	5	5	25	75	100
		2. Fluid Mechanics & Problem Solving Sessions	5	5	25	75	100
		3. Project	5	5	50	50	100
		VIII D. 1. Applied Graph Theory & Problem Solving Sessions	5	5	25	75	100
		2. Special Function & Problem Solving Sessions	5	5	25	75	100
3. Project	5	5	50	50	100		

*Candidate has to choose only one paper from VII(A) or VII(B) or VII(C) or VII(D)

* Candidates are advised to choose Cluster (A) if they have chosen VII (A) and Choose Cluster (B) if they have chosen VII(B) etc. However, a candidate may choose any cluster irrespective of what they have Chosen in paper VII.

IDEAL COLLEGE OF ARTS AND SCIENCES(A)
PHYSICS COURSE STRUCTURE UNDER CBCS
2021-2022

Year	Semester	Paper	Title	Marks	Credits	
I	I	I	Mechanics, waves and oscillations	100	04	
			Practical	50	01	
		Skill Development	Electrical Appliances	50	02	
	II	II	II	Waves optics	100	04
				Practical	50	01
		Skill Development	Solar Energy	50	02	
			Community Service Project	100	04	
II	III	III	Heat and Thermodynamics	100	03	
			Practical	50	02	
	IV	IV	Electricity magnetism & Electronics.	100	04	
			Practical	50	01	
		V	Modern Physics	100	04	
			Practical	50	01	
Practical	100	04				
III	V	V	Electricity magnetism & Electronics.	100	03	
			Practical	50	02	
		VI	Modern Physics	100	03	
			Practical	50	02	
	VI any one paper from A,B and C any one cluster from I, II, and III	VII A	VII A	Anylos and digital electronics	100	03
				Practical	50	02
		VII A1	VII A1	Introduction to micro procesolsand micro controller	100	03
				Practical	50	02
		VII A2	VII A2	Computational Methods and programming	100	03
				Practical	50	02
		VII A3	VII A3	Electronic Instrumentation	100	03
				Practical	50	02
		VII B	VII B	Material Science	100	03
				Practical	50	02
		VII B1	VII B1	Fundamentals of Nano Science	100	03
				Practical	50	02
		VII B2	VII B2	Synthesis and charactrizion of nano Materials	100	03
				Practical	50	02
		VII B3	VII B3	Applications of Nano Materials and Devices	100	03
	Practical			50	02	
	VII C	VII C	Renewable Energy	100	03	
Practical			50	02		
VII C1	VII C1	Solar thermal and photo voltaic aspects	100	03		
		Practical	50	02		
VII C2	VII C2	Wind hydro energies	100	03		
		Practical	50	02		
VII C3	VII C3	Energy Storage divices	100	03		
		Practical	50	02		

IDEAL COLLEGE OF ARTS & SCIENCES : KAKINADA

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Department of Computer Science

Structure of Computer Science Syllabus 2021-2022

Semester	Paper Code	Subject	Hrs./ Week	Credits	IA	ES	Total
I B.Sc. Computer Science Syllabus under CBCS w.e.f. 2020-2021 Batch							
I	C1	Problem Solving in C	4	3	30	70	100
	C1-P	Problem Solving in C Lab	2	2		50	50
II	C2	Data Structures using C	4	3	30	70	100
	C2-P	Data Structures using C Lab	2	2		50	50
		Community Service Project Work (2 months)		4			100
II B.Sc. Computer Science Syllabus under CBCS w.e.f. 2020-2021 Batch							
III	C3	Database Management System	4	3	30	70	100
	C3-P	Database Management System Lab	2	2		50	50
IV	C4	Object Oriented Programming using Java	4	3	30	70	100
	C4-P	Object Oriented Programming using Java Lab	2	2		50	50
	C5	Operating Systems	4	3	30	70	100
	C5-P	Operating Systems Lab using C/Java	2	2		50	50
		Short-term Internship (2 months)		4			100
III B.Sc. Computer Science Syllabus under CBCS w.e.f. 2015-2016 Batch							
V	5	Database Management System	4	3	25	75	100
	5-P	Database Management System Lab	2	2		50	50
	6	Software Engineering	4	3	25	75	100
	6-P	Software Engineering Lab	2	2		50	50
VI	7	<u>Elective-I</u> Computer Networks	3	3	25	75	100
	7-P	Computer Networks Lab	2	2		50	50
	8A	<u>Elective-II (Cluster-A)</u> 3. Foundations of Data Science	3	3	25	75	100
	8A-P	Foundations of Data Science Lab (through R)	2	2		50	50
	8B	4. Big Data Technology	3	3	25	75	100
	8B-p	Big Data Technology Lab (Hadoop)	2	2		50	50
	8C	Project Work	5	5	25	75	100

IDEAL COLLEGE OF ARTS AND SCIENCES(A)
CHEMISTRY COURSE STRUCTURE UNDER CBCS
2021-2022

Year	Semester	Paper	Title	Marks	Credits
I	I	I	Inorganic and Physical Chemistry	100	03
			Practical - I	50	02
	II	II	Organic and General chemistry	100	03
			Practical - II	50	02
			Community Service Project	100	04
II	III	III	Organic chemistry and Spectroscopy	100	03
			Practical - III	50	02
	IV	IV	Inorganic, Organic and Physical chemistry	100	03
			Practical - IV	50	02
		V	Inorganic and Physical Chemistry	100	03
			Practical - V	50	02
			Short Term Internship	100	04
	III	V	V	Inorganic, Organic and Physical chemistry	100
Practical-V				50	02
VI			Inorganic, Organic and Physical chemistry	100	03
			Practical -VI	50	02
VI Any one Elective paper from VII A, B, C		VII A	Elective: Analytical Method in Chemistry	100	03
			Practical- VII A	50	02
		VII B	Elective: Environmental Chemistry	100	03
			Practical: VII B	50	02
		VII C	Elective : Green Chemistry	100	03
			Practical -VII C	50	02
VIII A		VIII A	Cluster Elective 1:		
			VIII-A-1 : Polymer Chemistry	100	03
			VIII-A-2: Instrumental Methods of Analysis	100	03
			VIII-A-3: Analysis of Drugs, Foods, Dairy Products & Biochemical Analysis	100	03
			Practical VIII-A-1	50	02
	Practical VIII-A-2		50	02	
	Project Work		50	02	

Year	Semester	Paper	Title	Marks	Credits
	Any one Cluster from VIII A, B, C	VIII B	Cluster Elective 1I:		
			VIII - B-1 Fuel Chemistry and Batteries	100	03
			VIII - B-2 Inorganic materials of Industrial Importance	100	03
			VIII - B-3 Analysis of Industrial Products	100	03
			Practical VIII - B-1	50	02
			Practical VIII - B-2	50	02
			Project Work	50	02
		VIII C	Cluster Elective 1I:		
			VIII - C-1 Organic Spectroscopic Techniques	100	03
			VIII - C-2 Advanced Organic Reactions	100	03
			VIII - C-3 Pharmaceutical and Medicinal Chemistry	100	03
			Practical VIII - C-1	50	02
			Practical VIII - C-2	50	02
			Project Work	50	02

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BOTANY COURSE STRUCTURE UNDER CBCS
2021-2022

Year	Semester	Paper	Title	Hours/ Week	Max. Marks(SEE)	Marks in CIA	Credits
I	I	I	Fundamentals of Microbes and Non-Vascular Plants	04	70	30	03
			Fundamentals of Microbes and Non-Vascular Plants - Lab	03	Max.Marks-50 internal assessment at semester end		02
	II	II	Basics of Vascular Plants and Phytogeography	04	70	30	03
			Basics of Vascular Plants and Phytogeography - Lab	03	Max.Marks-50 External assessment at semester end		02
			Community Service Project	-	100		04
	II	III	III	Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity	04	70	30
Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity - Lab				03	Max.Marks-50 internal assessment at semester end		02
IV		IV	Plant Physiology and Metabolism	04	70	30	03
			Plant Physiology and Metabolism - Lab	03	Max.Marks-50 External assessment at semester end		02
			Cell Biology, Genetics and Plant Breeding	04	70	30	03
			Cell Biology, Genetics and Plant Breeding - Lab	03	Max.Marks-50 internal assessment at semester end		02
			Short Term Internship	-	100		04
			Cell Biology, Genetics and Plant Breeding	04	75	25	03

Year	Semester	Paper	Title	Hours/ Week	Max. Marks(SEE)	Marks in CIA	Credits
III	V	V	Cell Biology, Genetics and Plant Breeding - Lab	03	Max.Marks-50 internal assessment at semester end		02
		VI	Plant Ecology and Phytogeography	04	75	25	03
	Plant Ecology and Phytogeography - Lab		03	Max.Marks-50 internal		02	
	VII & VIII any one paper from A,B and C any one cluster from I, II, and III	VII (A) - Elective	Organic farming and sustainable agriculture	04	75	25	03
			Organic farming and sustainable agriculture - Lab	03	Max.Marks-50 External assessment at semester end		02
		VII (B) Elective	Nursery, Gardening and Floriculture	04	75	25	03
			Nursery, Gardening and Floriculture - Lab	03	Max.Marks-50 External		02
		VII (C) Elective	Plant Tissue culture and its Biotechnological applications	04	75	25	03
			Plant Tissue culture and its Biotechnological applications - Lab	03	Max.Marks-50 External assessment at semester end		02
		VIII (A1) Cluster	Plant Diversity and Human welfare	04	75	25	03
			Plant Diversity and Human welfare - Lab	03	Max.Marks-50 External		02
		VIII (A2) Cluster	Ethanobotany and medicinal botany	04	75	25	03
			Ethanobotany and medicinal botany - Lab	03	Max.Marks-50 External		02
		VIII (A3) Cluster	Pharmacognosy and phytochemistry	04	75	25	03
			Pharmacognosy and phytochemistry Lab	03	Max.Marks-50 External		02
		VIII (B1) Cluster	Biological Instrumentation and methadology	04	75	25	03
			Biological Instrumentation and methadology - Lab	03	Max.Marks-50 External assessment at semester end		02
	VIII (B2) Cluster	Mushroom cultivation and Technology	04	75	25	03	
		Mushroom cultivation and Technology - lab	03	Max.Marks-50 External		02	
	VIII (B3) Cluster	Internship/project work preferably either in an institution or Industry	-	100		03	

IDEAL COLLEGE OF ARTS & SCIENCES, KAKINADA

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Dr. PVN RAJU VIDYAPRANGANAM

KAKINADA.

ZOOLOGY COURSE STRUCTURE UNDER CBCS 2021-22

YEAR	SEMESTER	PAPER	TITLE	MARKS	CREDITS	
I	I	I	Animal Diversity – Biology of Non Chordates	100	03	
			Practical - I	50	02	
	II	II	Animal Diversity – Biology of chordates	100	03	
			Practical - II	50	02	
			Community Service Project	100	04	
II	III	III	Cell biology, Genetics, Molecular Biology & Evolution	100	03	
			Practical - III	50	02	
	IV	IV	Animal Physiology, Cellular metabolism and Embryology	100	03	
			Practical - IV	50	02	
	V	V	Immunology & Animal Biotechnology	100	03	
			Practical - V	50	02	
			Short Term Internship	100	04	
III	V	V	Animal Biotechnology	100	03	
			Practical - V	50	02	
		VI	Animal Husbandry	100	03	
			Practical - VI	50	02	
	Any one Paper from A, B and C	VII (A)	Immunology	100	03	
			Practical - VII (A)	50	02	
		VII (B)*	Cellular Metabolism and Molecular Biology	100	03	
			Practical - VII (B)	50	02	
	** Any one cluster from I, II and III	VII (C)*	Bioinformatics	100	03	
			Practical - VII (C)	50	02	
		Cluster VIII-A**	Cluster Electives –VIII-A : Medical Diagnostics			
			1. Clinical Biochemistry	100	03	
	2. Haematology		100	03		
	3. Clinical Microbiology		100	03		
Practical – VIII: 1	50		02			
Practical – VIII: 2	50	02				
Project Work	50	02				
VI	Cluster VIII-B**	Cluster Electives –VIII-B : Aquaculture				
		1. Principles of Aquaculture	100	03		

			2. Aquaculture Management	100	03
			3. Postharvest Technology	100	03
			Practical – VIII: 1	50	02
			Practical – VIII: 2	50	02
			Project Work	50	02
		Cluster VIII-C**	Cluster Electives – VIII-C : Sericulture		
			1. Gen. Sericulture, Mulberry cultivation and Management	100	03
			2. Biology of Mulberry Silkworm and Silkworm rearing Technology	100	03
			3. Silk Technology, Silk Marketing and Extension		
			Practical – VIII: 1	50	02
			Practical – VIII: 2	50	02
			Project Work	50	02

IDEAL COLLEGE OF ARTS AND SCIENCES(A)
HISTORY COURSE STRUCTURE UNDER CBCS
2021-2022

Year	Semester	Title	Max. Marks	Credits
I	I	ANCIENT INDIAN HISTORY & CULTURE	100	04
	II	Medieval Indian History & Culture	100	04
		Community Service Project	100	04
II	III	Modern Indian History	100	04
	IV	History and Culture of Andhra		
		History of Modern World (15th Cen - 1945)	100	04
		Short Term Internship	100	04
III	V	History of Modern World (1453 to 1821)	100	04
		History of Culture of Andhra Desha	100	04
	VI	History of Modern World	100	04
		Cultural Tourism	100	04
		Popular Movements in Andhra Desa	100	04
		Contemporary History of Andhra Pradesh	100	04

IDEAL COLLEGE OF ARTS AND SCIENCES

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Dr.P.V.N.RAJU VIDYAPRANGANAM
Samalkot Road – Kakinada

DEPARTMENT OF ECONOMICS

B.A ECONOMICS COURSE STRUCTURE 2021-2022

YEAR	Paper / Course	Semester	Title of the Paper	Credits	Marks
First Year	Course - 1	Semester - I	Micro Economics Analysis	4	100
	Course - 2	Semester – II	Macro Economics Analysis	4	100
			Community Service Project	4	100
Second Year	Course - 3	Semester – III	Development Economics	4	100
	Course - 4	Semester – IV	Economic Development in India and Andhra Pradesh	4	100
			Short Term Internship	4	100
	Course - 5	Semester – IV	Statistical Methods for Economics	4	100
Third Year	Paper – V	Semester – V	Economic Development and Indian Economy	4	100
	Paper – VI	Semester – V	Indian and Andhra Pradesh Economy	4	100
	Paper – VII A	Semester – VI	Agricultural Economics	4	100
	Cluster Elective - (A) Agri Business			4	100
	Paper – VIII A-1	Semester – VI	Agri Business Environment in Andhra Pradesh	4	100
	Paper – VIII A-2	Semester – VI	Agricultural output marketing	4	100
	Paper – VIII A-3	Semester – VI	Project Work	4	100

**POLITICAL SCIENCE COURSE STRUCTURE UNDER CBCS
2021-2022**

Year	Semester	Title	Max. Marks	Credits
I	I	Introduction to Political Science	100	04
	II	Basic Organs of the Government	100	04
		Community Service Project	100	04
II	III	Indian Government and Politics	100	04
	IV	Indian Political Process		
		Western Political Thought	100	04
		Short Term Internship	100	04
III	V	E - Governance	100	04
	VI	Local Administration	100	04
		International Relations	100	04
		Indian Foreign Policy	100	04
		Contemporary Global Issues	100	04

IDEAL COLLEGE OF ARTS AND SCIENCES(A)
COMMERCE COURSE STRUCTURE UNDER CBCS
2021-2022

Year	Semester	Title	Max. Marks	Credits	
I	I	Fundamentals of Accounting	100	04	
		Business Organization and Management	100	04	
		Business Environment	100	04	
	II	II	Financial Accounting	100	04
			Business Economics	100	04
			Banking Theory & Practice	100	04
			Community Service Project	100	04
II	III	Advanced Accounting	100	04	
		Business Statistics	100	04	
		Marketing	100	04	
	IV	IV	Corporate Accounting	100	04
			Cost and Management Accounting	100	04
			Income Tax	100	04
			Business Laws	100	04
			Auditing	100	04
			Goods and service tax	100	04
			Short Term Internship	100	04
III	V	Business Leadership	50	02	
		Cost Accounting	100	04	
		Goods and service tax	100	04	
		Commercial Geography	100	04	
		Rural and farm credit	100	04	
		Central banking	100	04	
		Project work	100	04	
	VI	VI	Tally	100	04
			Marketing	100	04
			Auditing	100	04
			Management accounting	100	04
			Marketing financial service	100	04
			Financial Service	100	04
			Project work	100	04

IDEAL COLLEGE OF ARTS AND SCIENCES
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P.V.N. RAJU VIDYAPRANGANAM, KAKINADA

Bachelor of Vocation: Agriculture

Course structure and syllabi: w.e from 2020-21 Admitted Batch
Semester -III

S.No	Name of the Subject	Total Marks	Mid. Sem Exam	Sem. End Exam	Teaching Hours	Credits
1	English	100	30	70	4	3
2	Telugu	100	30	70	4	3
3	Analytical Skills (LSC-1)	50	---	50	2	2
4	Environmental Education (LSC-2)	50	---	50	2	2
5	Online Business (SD)	50	---			
6	Chemistry (Organic chemistry and spectroscopy)	100	30	70	4	4
7	Chemistry (Practical -III organic preparation and IR spectra analysis)	50	---	50	2	1
8	Agronomy of field crops	100	30	70	4	4
9	Agronomy of field crops Practical	50	--	50	2	1
10	Manures fertilizers and soil fertility management	100	30	70	4	1
11	Manures fertilizers and soil fertility management practical	50	---	50	2	1
12	Agricultural economics and farm management	100	30	70	4	4
13	On Job Training	50	---	50	2	1
		900	180	720	36	29

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Bachelor of Vocation: Agriculture

Course structure and syllabi: w.e from 2021-22 Admitted Batch

Semester -IV

S.No	Name of the Subject	Total Marks	Mid. Sem Exam	Sem. End Exam	Teaching Hours	Credits
1	English	100	30	70	4	3
2	Telugu	100	30	70	4	3
3	Chemistry (inorganic, organic and physical chemistry)	50	---	50	2	2
4	Chemistry (practical -IV organic qualitative analysis)	50	---	50	2	1
5	Chemistry (inorganic and physical chemistry)	100	30	70	4	4
6	Chemistry (practical -V course conductometric and potentiometric titrimetry)	50	---	50	2	1
7	Pest of field crops and their management	100	30	70	4	4
8	Pest of field crops and their management practical	50	---	50	2	1
9	Water management	100	30	70	4	1
10	Water management practical	50	---	50	2	1
11	Principles of Organic farming	100	30	70	4	4
12	Principles of Organic farming practical	50		50	2	1
13	Farm Power and Machinery	100	30	70	4	4
14	On Job Training	50	---	50	2	1
		900	180	720	36	29

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Bachelor of Vocation: Agriculture

Course structure and syllabi: w.e from 2021-22 Admitted Batch

Semester -I

S. No	Name of the Subject	Total Marks	Mid. Sem Exam	Sem.End Exam	Teaching Hours	Credits
1	English	100	30	70	4	3
2	Telugu	100	30	70	4	3
3	Basic computer application (LS)	50	-- -	50	2	2
4	Electrical appliances (SD)	50	---	50	2	2
5	Chemistry (Inorganic and Physical chemistry)	100	30	70	4	4
6	Chemistry (Practical- Analysis of salt mixture)	50	30	50	2	1
7	Introduction to Agronomy	100	30	70	4	4
8	Introduction to Agronomy Practical	50		70	2	1
9	Introduction to soil science	100	30	70	4	4
10	Introduction to soil science practical	50	---	50	2	1
11	Principles of plant breeding	100	30	70	4	4
12	On Job Training	50	---	50	2	1
		900	180	720	36	29

For
Prithvi B
N. Hanuoka

Y. K. Raju

IDEAL COLLEGE OF ARTS AND SCIENCES
(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B) DR.
P.V.N. RAJU VIDYAPRANGANAM, KAKINADA

Bachelor of Vocation: Agriculture

Course structure and syllabi: w.e from 2021-22 Admitted Batch

Semester -II

S.No	Name of the Subject	Total Marks	Mid. Sem Exam	Sem.End Exam	Teaching Hours	Credits
1	English	100	30	70	4	3
2	Telugu	100	30	70	4	3
3	Information & Communication Technology (LSC)	50	---	50	2	2
4	Solar Energy (SD-1)	50	---	50	2	2
5	Advertising (SD-2)	50				
6	Chemistry(Organic and general chemistry)	100	30	70	4	4
7	Chemistry (Practical – II volumetric analysis)	50		50	2	1
8	Introduction to Entomology	100	30	70	4	4
9	Introduction to Entomology practical	50		50	2	1
10	Introduction to plant pathology	100	30	70	4	4
11	Introduction to plant pathology practical	50	---	50	2	1
12	Fundamentals of crop physiology	100	30	70	4	4
13	On Job Training	50	---	50	2	1
		900	180	720	36	30

B

Faith B

N. Hanita

Y. K. Raju

IDEAL COLLEGE OF ARTS AND SCIENCES
(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B) DR.
P.V.N. RAJU VIDYAPRANGANAM, KAKINADA

Bachelor of Vocation: Sustainable Agriculture

Course structure and syllabi: w.e from 2021-22 Admitted Batch

Semester -IV

S.No	Name of the Subject	Total Marks	Mid. Sem Exam	Sem. End Exam	Teaching Hours	Credits
1	English	100	30	70	4	3
2	Telugu	100	30	70	4	3
3	Chemistry (inorganic, organic and physical chemistry)	50	---	50	2	2
4	Chemistry (practical -IV organic qualitative analysis)	50	---	50	2	1
5	Chemistry (inorganic and physical chemistry)	100	30	70	4	4
6	Chemistry (practical -V course conductometric and potentiometric titrimetry)	50	---	50	2	1
7	Pest of field crops and their management	100	30	70	4	4
8	Pest of field crops and their management practical	50	---	50	2	1
9	Water management	100	30	70	4	1
10	Water management practical	50	---	50	2	1
11	Principles of Organic farming	100	30	70	4	4
12	Principles of Organic farming practical	50		50	2	1
13	Farm Power and Machinery	100	30	70	4	4
14	On Job Training	50	---	50	2	1
		900	180	720	36	29

IDEAL COLLEGE OF ARTS AND SCIENCES

(A.P. GOVT., AIDED, AUTONOMOUS
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VIDYAPRANGANAM, KAKINADA

Bachelor of Vocation: Sustainable Agriculture
Semester -V (2021-22)

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1.	Inorganic ,organic physical chemistry -1	100	25	75	4	3
2.	Lab Practical	50	0	50	2	2
3.	Inorganic ,organic physical chemistry-2	100	25	75	4	3
4.	Lab Practical	50	0	50	2	2
Skill Education						
1	Fundamentals of organic farming	100	25	75	4	4
2	Lab Practical	50	0	50	2	2
3	landscape designing and gardening	100	25	75	4	4
4	Lab Practical	50	0	50	2	2
5	Commercial enterprises	100	25	75	4	4
6	Project work	100	0	100	4	4
Total		800			32	30

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Shrestha S.T

IDEAL COLLEGE OF ARTS AND SCIENCES

(A.P. GOVT., AIDED, AUTONOMOUS
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VIDYAPRANGANAM, KAKINADA

Bachelor of Vocation: Sustainable Agriculture Semester: VI

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1.	Environmental chemistry	100	25	75	4	3
2.	Environmental chemistry lab	50	0	50	2	2
3.	Pests of field crops and vegetable crops	100	25	75	4	3
4.	Pests of field crops and vegetable crops lab	50	0	50	2	2
Skill Education						
1	Major flower crop production in india	100	25	75	4	4
2	Major flower crop production in india lab	50	0	50	2	2
3	Tropical and sub tropical fruit production	100	25	75	4	4
4	Tropical and sub tropical fruit production lab	50	0	50	2	2
5	Post Harvest Management of Horticultural crops	100	25	75	4	4
6	Project work-2	100	0	100	4	4
Total		800			30	30

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IDEAL COLLEGE OF ARTS AND SCIENCES
(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B) DR.
P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
Bachelor of Vocation: Sustainable Agriculture
Course structure and syllabi: w.e from 2020-21 Admitted Batch
Semester -III

S.No	Name of the Subject	Total Marks	Mid. Sem Exam	Sem. End Exam	Teaching Hours	Credits
1	English	100	30	70	4	3
2	Telugu	100	30	70	4	3
3	Analytical Skills (LSC-1)	50	---	50	2	2
4	Environmental Education (LSC-2)	50	---	50	2	2
5	Online Business (SD)	50	---			
6	Chemistry (Organic chemistry and spectroscopy)	100	30	70	4	4
7	Chemistry (Practical-III organic preparation and IR spectra analysis)	50	---	50	2	1
8	Agronomy of field crops	100	30	70	4	4
9	Agronomy of field crops Practical	50	--	50	2	1
10	Manures fertilizers and soil fertility management	100	30	70	4	1
11	Manures fertilizers and soil fertility management practical	50	---	50	2	1
12	Agricultural economics and farm management	100	30	70	4	4
13	On Job Training	50	---	50	2	1
		900	180	720	36	29

IDEAL COLLEGE OF ARTS AND SCIENCES
(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B) DR.
P.V.N. RAJU VIDYAPRANGANAM, KAKINADA

Bachelor of Vocation: sustainable Agriculture

Course structure and syllabi: w.e from 2021-22 Admitted Batch

Semester -II

S.No	Name of the Subject	Total Marks	Mid. Sem Exam	Sem.End Exam	Teaching Hours	Credits
1	English	100	30	70	4	3
2	Telugu	100	30	70	4	3
3	Information & Communication Technology (LSC)	50	---	50	2	2
4	Solar Energy (SD-1)	50	---	50	2	2
5	Advertising (SD-2)	50				
6	Chemistry(Organic and general chemistry)	100	30	70	4	4
7	Chemistry (Practical – II volumetric analysis)	50		50	2	1
8	Introduction to Entomology	100	30	70	4	4
9	Introduction to Entomology practical	50		50	2	1
10	Introduction to plant pathology	100	30	70	4	4
11	Introduction to plant pathology practical	50	---	50	2	1
12	Fundamentals of crop physiology	100	30	70	4	4
13	On Job Training	50	---	50	2	1
		900	180	720	36	30

Ba

Talwar B

M. Hanita

V. Anus Raju

IDEAL COLLEGES OF ARTS AND SCIENCES (ATONOMOUS)
 AFFILIATED TO ADIKAVI NANNYA UNIVERSITY
Bachelor of Vocation: INDUSTRIAL AQUACULTURE & FISHERIES
 Course structure and syllabi 2021-2022 Admitted Batch
 III Year; Semester V

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1.	Inorganic, Organic and Physical chemistry-1	100	25	75	4	3
2.	Lab Practical	50	0	50	2	2
3.	Zoology (Animal-Biotechnology)	100	25	75	4	3
4.	Lab Practical	50	-	50	2	2
Skill Education						
1.	Fish Processing Technology and Quality Control	100	25	75	4	4
2.	Lab Practical	50	-	50	2	2
3.	Aquatic Pollution	100	25	75	4	4
4.	Lab	50	0	50	2	2
5.	Fisheries Policy, Law and Disaster Management	100	25	75	4	4
6.	Project-1	100	-	100	2	4
	Total	800			34	30

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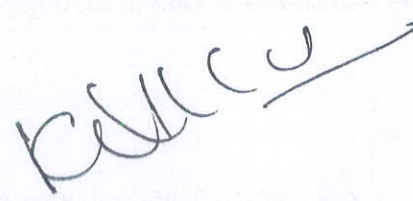
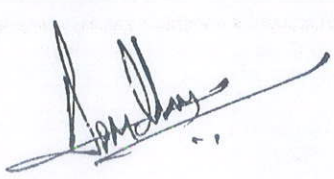
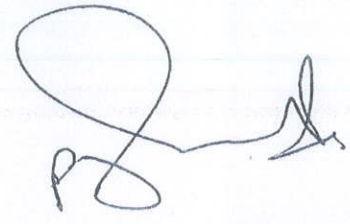
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IDEAL COLLEGES OF ARTS AND SCIENCES (ATONOMOUS)
 AFFILIATED TO ADIKAVI NANNYA UNIVERSITY
Bachelor of Vocation: INDUSTRIAL AQUACULTURE & FISHERIES
 Course structure and syllabi: 2021-2022 Admitted Batch
 III Year; Semester VI

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1.	Environmental Chemistry	100	25	75	4	3
2.	Lab Practical	50	0	50	2	2
3.	Zoology (Immunology)	100	25	75	4	3
4.	Lab Practical	50	0	50	2	2
Skill Education						
1	Fisheries Economics and Marketing	100	25	75	4	4
2	Lab Practical	50	0	50	2	2
3	Aquaculture Engineering	100	25	75	4	4
4	Lab Practical	50	0	50	2	2
5	Fisheries Cooperatives and Marketing	100	25	75	4	4
6	Project Work-2	100	0	100	2	4
	Total	800			30	30



IDEAL COLLEGE OF ARTS AND SCIENCES
(AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
Bachelor of Vocation: Industrial Aquaculture & Fisheries
Course Structure and Syllabus; 2021-2022
Admitted Batch II Year, Semester III

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1	English	100	40	60	4	3
2	Second language-Telugu	100	40	60	4	3
3	Life Skill Course-1	50	-	50	2	2
4	Life Skill Course-2	50	-	50	2	2
5	Skill Development Course	50	-	50	2	2
Skill Education						
1	Zoology	100	40	60	4	4
	Lab Practical	50	-	50	2	1
2	Capture Fisheries	100	40	60	4	4
	Lab practical	50	-	50	2	1
3	Aquaculture Nutrition	100	40	60	4	4
	Lab Practical	50	-	50	2	1
4	Fish Seed Production	100	40	60	4	4
	OJT	50	-	50	2	1
	Total	1050			38	36

IDEAL COLLEGE OF ARTS AND SCIENCES
(AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
Bachelor of Vocation: Industrial Aquaculture & Fisheries
Course Structure and Syllabus; 2021-2022
Admitted Batch II Year, Semester IV

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
Skill Education						
1	Zoology-4	100	40	60	4	4
	Lab Practical	50	-	50	2	1
2	Zoology-5	100	40	60	4	4
	Lab Practical	50	-	50	2	1
3	Fish Genetics & Aquaculture Bio-Technology	100	40	60	4	4
	Lab Practical	50	-	50	2	1
4	Fish Pathology & Immunology	100	40	60	4	4
	Lab Practical	50	-	50	2	1
5	Ornamental Fish Culture	100	40	60	4	4
	Lab practical	50	-	50	2	1
6	Larval Nutrition & Culture of Fish Food Organisms	100	40	60	4	4
	OJT	50	-	50	2	1
7	Internship	100	-	-	-	4
	Total	1000			38	36

IDEAL COLLEGE OF ARTS AND SCIENCES
(AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
Bachelor of Vocation: Industrial Aquaculture & Fisheries
Course Structure and Syllabus;2021-2022
Admitted Batch I Year, Semester I

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1	English	100	30	70	4	3
2	Second language-Telugu	100	30	70	4	3
3	Life Skill Course	50	-	50	2	2
4	Skill Development Course	50	-	50	2	2
Skill Education						
1	Zoology	100	30	70	4	4
	Lab Practical	50	-	50	2	1
2	Biology of Fishes	100	30	70	4	4
	Lab practical	50	-	50	2	1
3	Principles of Aquaculture	100	30	70	4	4
	Lab Practical	50	-	50	2	1
4	Fresh Water Aquaculture	100	30	70	4	4
	OJT	50	-	50	2	1
	Total	900	-	-	36	30

IDEAL COLLEGE OF ARTS AND SCIENCES
(AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
Bachelor of Vocation: Industrial Aquaculture & Fisheries
Course Structure and Syllabus; 2021-2022
Admitted Batch I Year, Semester II

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1	English	100	40	60	4	3
2	Second language-Telugu	100	40	60	4	3
3	Life Skill Course-1	50	-	50	2	2
4	Life Skill Course-2	50	-	50	2	2
5	Skill Development Course	50	-	50	2	2
Skill Education						
1	Zoology	100	40	60	4	4
	Lab Practical	50	-	50	2	1
2	Biology of Fin Shell Fishes	100	40	60	4	4
	Lab practical	50	-	50	2	1
3	Brackish Water Aquaculture & Mari Culture	100	40	60	4	4
	Lab Practical	50	-	50	2	1
4	Fishing Methods	100	40	60	4	4
	OJT	50	-	50	2	1
5	Community Service Project	100	-	-	-	4
	Total	1050			38	36

IDEAL COLLEGE OF ARTS AND SCIENCES
(AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
Bachelor of Vocation: Commercial Aquaculture
Course structure and syllabus; 2021-2022
Admitted Batch II Year, Semester III

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1	English	100	40	60	4	3
2	Second language-Telugu	100	40	60	4	3
3	Life Skill Course-1	50	-	50	2	2
4	Life Skill Course-2	50	-	50	2	2
5	Skill Development Course	50	-	50	2	2
Skill Education						
1	Zoology	100	40	60	4	4
	Lab Practical	50	-	50	2	1
2	Capture Fisheries	100	40	60	4	4
	Lab practical	50	-	50	2	1
3	Aquaculture Nutrition	100	40	60	4	4
	Lab Practical	50	-	50	2	1
4	Fish Seed Production	100	40	60	4	4
	OJT	50	-	50	2	1
	Total	1050			38	36

IDEAL COLLEGE OF ARTS AND SCIENCES
(AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
Bachelor of Vocation: Commercial Aquaculture
Course structure and syllabus; 2021-2022
Admitted Batch II Year, Semester IV

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
Skill Education						
1	Zoology-4	100	40	60	4	4
	Lab Practical	50	-	50	2	1
2	Zoology-5	100	40	60	4	4
	Lab Practical	50	-	50	2	1
3	Fish Genetics & Aquaculture Bio-Technology	100	40	60	4	4
	Lab Practical	50	-	50	2	1
4	Fish Pathology & Immunology	100	40	60	4	4
	Lab Practical	50	-	50	2	1
5	Ornamental Fish Culture	100	40	60	4	4
	Lab practical	50	-	50	2	1
6	Larval Nutrition & Culture of Fish Food Organisms	100	40	60	4	4
	OJT	50	-	50	2	1
7	Internship	100	-	-	-	4
	Total	1000			38	36

IDEAL COLLEGE OF ARTS AND SCIENCES
(AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
Bachelor of Vocation: Commercial Aquaculture
Course structure and syllabus; 2021-2022
Admitted Batch I Year, Semester I

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1	English	100	30	70	4	3
2	Second language-Telugu	100	30	70	4	3
3	Life Skill Course	50	-	50	2	2
4	Skill Development Course	50	-	50	2	2
Skill Education						
1	Zoology	100	30	70	4	4
	Lab Practical	50	-	50	2	1
2	Biology of Fishes	100	30	70	4	4
	Lab practical	50	-	50	2	1
3	Principles of Aquaculture	100	30	70	4	4
	Lab Practical	50	-	50	2	1
4	Fresh Water Aquaculture	100	30	70	4	4
	OJT	50	-	50	2	1
	Total	900	-	-	36	30

IDEAL COLLEGE OF ARTS AND SCIENCES
(AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
Bachelor of Vocation: Commercial Aquaculture
Course structure and syllabus; 2021-2022
Admitted Batch I Year, Semester II

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1	English	100	40	60	4	3
2	Second language-Telugu	100	40	60	4	3
3	Life Skill Course-1	50	-	50	2	2
4	Life Skill Course-2	50	-	50	2	2
5	Skill Development Course	50	-	50	2	2
Skill Education						
1	Zoology	100	40	60	4	4
	Lab Practical	50	-	50	2	1
2	Biology of Fin Shell Fishes	100	40	60	4	4
	Lab practical	50	-	50	2	1
3	Brackish Water Aquaculture & Mari Culture	100	40	60	4	4
	Lab Practical	50	-	50	2	1
4	Fishing Methods	100	40	60	4	4
	OJT	50	-	50	2	1
5	Community Service Project	100	-	-	-	4
	Total	1050			38	36

IDEAL COLLEGE OF ARTS AND SCIENCES

(Autonomous & NAAC-B)
DR.P.V.N RAJU VIDYAPRANGANAM
KAKINADA-533002

Department of Food Science & Technology
Course structure under CBCS (2021-22)
B.sc- Food technology

Year	Semester	Title	Max.Marks	Credits
I	I	Food Production Trends	100	04
		Chemistry	100	04
		Food Science & Nutrition I	100	04
	II	Food Science & Nutrition II	100	04
		Chemistry	100	04
		Basic Principles of Food Preservation	100	04
		Community service project	100	04
II	III	Processing of Milk & Milk Products	100	05
		Processing of cereals, pulses and oil seeds	100	04
		Food Science & Nutrition III	100	04
	IV	Food business management	100	04
		Food safety and microbial standards	100	04
		New product development and sensory science	100	04
		Food engineering	100	04
		Processing of fruits and vegetables	100	04
		Food additives	100	04
		SHORT TERM INTERNSHIP(2 months)	100	04

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DR. P.V.N. RAJU VIDYAPRANGANAM

KAKINADA - 533002.

Department of Computer Science

Course structure and syllabi: w. e. from 2020 -21 Admitted Batch.

B.Voc - Software Development (Second Year).

Semester - III

S.No	Course	Name of the Subject	Total Marks	Mid. Sem Exam	Sem. End Exam	Teaching Hours	Credits
1	First Language	English	100	30	70	4	3
2	Second Language	Telugu	100	30	70	4	3
3	Life Skill Course 1	Analytical Skills	50	---	50	2	2
4	Life Skill Course 2	Environmental Education	50	---	50	2	2
4	Skill Development Course	Online Business	50	---	50	2	2
5	Major 1	Numerical Analysis	100	30	70	4	4
6	Major 2	Data Structures Using C	100	30	70	4	4
7	Core 1	Introduction to Python Programming	100	30	70	4	4
8	Core 2	Object Oriented Programming Through JAVA	50	--	50	2	2
9	Major 1 Lab	Numerical Analysis & Programming Lab.	50	---	50	2	1
10	Major 2 Lab	DS Using C Lab	50	---	50	2	1
11	Core 1 Lab	Python Programming Lab.	50	---	50	2	1
12	Core 2 Lab* Institutional On Job Training	Java Programming Lab.	50	---	50	2	1
			900	150	750	36	30

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IDEAL COLLEGE OF ARTS AND SCIENCES

(A.P. GOVT., AIDED, AUTONOMOUS & NAAC-B)

DR. P.V.N. RAJU VIDYAPRANGANAM

KAKINADA - 533002.

Department of Computer Science

Course structure and syllabi: w. e. from 2020 -21 Admitted Batch.

B.Voc - Software Development (Second Year).

Semester - IV

S.No	Course	Name of the Subject	Total Marks	Mid. Sem Exam	Sem. End Exam	Teaching Hours	Credits
Major I							
1	Course 1	Advanced Numerical Analysis	100	30	70	4	4
2	Course 2	Discrete Mathematical Structures	100	30	70	4	4
3	Course 1 Lab	Advanced Numerical Analysis Lab	50	---	50	2	1
4	Course 2 Lab	Discrete Mathematical Structures Lab	50	---	50	2	1
Major II							
5	Course 1	Object Oriented Software Engineering	100	30	70	4	4
6	Course 2	Operating Systems	100	30	70	4	4
7	Course 1 Lab	Object Oriented Software Engineering Lab	50	---	50	2	1
8	Course 2 Lab	Operating Systems Lab.	50	---	50	2	1
Vocational Courses							
9	Course 1	Web Programming	100	30	70	4	4
10	Course 2	Basics of Cloud Computing	100	30	70	4	4
11	Course 1 Lab	Web Programming - Lab	50	---	50	2	1
12	Course 2 Lab	Cloud Computing Lab	50	---	50	2	1
13	Apprenticeship	----	100	---	---	---	4
			1000	180	720	36	34

P. Venk

D. Venk

IDEAL COLLEGE OF ARTS AND SCIENCES
(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM
KAKINADA

BBA (Digital Marketing) COURSE STRUCTURE)

Semester – III

Sl. No.	Course	Name of the subject	Total Marks	Mid. Sem. Exam	Sem. End Exam	Teaching Hours	Cred
1.	First Language	General English	100	30	70	4	3
2.	Second Language	(Tel/Hindi/Urdu/Sans)	100	30	70	4	3
3.	Life Skill Course	Analytical Skills	50	---	50	2	2
4.	Life Skill Course	Environmental Education	50	---	50	2	2
5.	Skill Development Course	Online Business	50	---	50	2	2
6.	CORE 1	Organizational Behavior	100	30	70	5	4
7.	CORE 2	Search Engine Optimization	100	30	70	5	4
8.	CORE 3	Financial Management	100	30	70	5	4
Total			650	150	500	29	24

Semester – IV

Sl. No.	Course	Name of the subject	Total Marks	Mid. Sem. Exam	Sem. End Exam	Teaching Hours	Credi
1.	CORE 1	Training and Development	100	30	70	5	4
2.	CORE 2	Business Law	100	30	70	5	4
3.	CORE 3	Micro, Small, Medium Enterprises Management	100	30	70	5	4
4.	CORE 4	International Business	100	30	70	5	4
5.	CORE 5	Search Engine Marketing & Affiliate Marketing	100	30	70	5	4
6.	CORE 6	Cyber Law	100	30	70	5	4
7.	Internship	Corporate Internship	100				4
Total			700	180	420	30	28

M Parthi

A. Singh

K. Rao

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IDEAL COLLEGE OF ARTS AND SCIENCES
AUTONOMOUS & NAAC B
Dr. P.V.N RAJU VIDYAPRANGANAM
SAMALKOT ROAD, KAKINADA

LIST OF NEW COURSES

Academic Year - 2020 - 2021

S.No	Name of the New Courses	Department	Program
1	A Course in Communication and soft skills	English	BA, B.Com, B.Sc.
2	A Course in Reading and Writing Skills	English	BA, B.Com, B.Sc.
3	Kavya Sudha	Telugu	B.Sc., B.A, B.Com
4	Adhunika Bharathi	Telugu	B.Sc., B.A, B.Com
5	Mechanics Waves & Oscillations	Physics	MPC, MPCs
6	Electrical Appliances Skill Development	Physics	MPC, MPCs
7	Wave Optics	Physics	MPC, MPCs
8	Solar Energy Skill Development	Physics	MPC, MPCs
9	Problem Solving in C	Computer Science	B.Sc.(M.P.CS)
10	Data Structures using C	Computer Science	B.Sc.(M.P.CS)
11	Inorganic and Physical chemistry	Chemistry	B.Sc., Chemistry
12	Organic and General chemistry	Chemistry	B.Sc., Chemistry
13	Fundamentals Microbs and non Vascular Plants	Botany	B.Sc., B.Z.C
14	Basic of Vascular plants and phytogeography	Botany	B.Sc., B.Z.C
15	Plant Nursery	Botany	B.Sc., B.Z.C
16	Fruit and vegetable preservation	Botany	B.Sc., B.Z.C
17	Animal diversity -1 Biology of non chordates	Zoology	B.Sc., B.Z.C
18	Animal diversity -2 Biology of chordates	Zoology	B.Sc., B.Z.C
19	Ansient Indian History & Culture	History	BA
20	Medieval Indian History & Culture	History	BA
21	Indroduction to Political Science	Political Science	BA

S.No	Name of the New Courses	Department	Program
22	Basic Organs of the Government	Political Science	BA
23	Micro Economics Analysis	Economics	BA
24	Macro Economics Analysis	Economics	BA
25	Fundamentals of Accounting (1A)	Commerce	B.Com
26	Business Organisation and Management (1B)	Commerce	B.Com
27	Business Environment (1C)	Commerce	B.Com
28	Financial Accounting (2A)	Commerce	B.Com
29	Business Economics (2B)	Commerce	B.Com
30	Banking Theory and Practice (2C)	Commerce	B.Com
31	Seed science and technology	Agriculture	B.Voc
32	Fundamentals of horticulture	Agriculture	B.Voc
33	Fundamentals of Agronomy	Agriculture	B.Voc
34	Seed science and technology	Agriculture	B.Voc
35	Fundamentals of soil science	Agriculture	B.Voc
36	Entomology	Agriculture	B.Voc
37	Protected cultivation of Horticultural crops	Sustainable Agriculture	B.Voc
38	Fundamentals of Pathology	Sustainable Agriculture	B.Voc
39	Commercial Vegetable Production	Sustainable Agriculture	B.Voc
40	Agricultural Extension and rural sociology and psychology	Sustainable Agriculture	B.Voc
41	Plant Physiology	Sustainable Agriculture	B.Voc
42	Weed management and Fodder crop production	Sustainable Agriculture	B.Voc
43	Farm power and machinery	Sustainable Agriculture	B.Voc
44	Livestock farming	Sustainable Agriculture	B.Voc
45	Seed science and technology	Sustainable Agriculture	B.Voc
46	Fundamentals of horticulture	Sustainable Agriculture	B.Voc
47	Fundamentals of Agronomy	Sustainable Agriculture	B.Voc
48	Seed science and technology	Sustainable Agriculture	B.Voc
49	Fundamentals of soil science	Sustainable Agriculture	B.Voc

S.No	Name of the New Courses	Department	Program
50	Entomology	Sustainable Agriculture	B.Voc
51	Chemistry	Industrial Aquaculture and Fisheries	B.Voc
52	Zoology	Industrial Aquaculture and Fisheries	B.Voc
53	Inland and Marine Fisheries	Industrial Aquaculture and Fisheries	B.Voc
54	Aquaculture Nutrition	Industrial Aquaculture and Fisheries	B.Voc
55	Fish Genetics And Aquaculture Bio-Technology	Industrial Aquaculture and Fisheries	B.Voc
56	Chemistry	Industrial Aquaculture and Fisheries	B.Voc
57	Zoology	Industrial Aquaculture and Fisheries	B.Voc
58	Pathology in Aquaculture	Industrial Aquaculture and Fisheries	B.Voc
59	Ornamental Fishes	Industrial Aquaculture and Fisheries	B.Voc
60	Fish Microbiology and By-products	Industrial Aquaculture and Fisheries	B.Voc
61	Freshwater Aquaculture, Brackishwater Aquaculture and Mari culture	Industrial Aquaculture and Fisheries	B.Voc
62	Chemistry	Commercial Aquaculture	B.Voc
63	Zoology	Commercial Aquaculture	B.Voc
64	Biology of Finfishes and Shellfishes	Commercial Aquaculture	B.Voc
65	Priciples of Aquaculture	Commercial Aquaculture	B.Voc
66	Chemistry	Commercial Aquaculture	B.Voc
67	Zoology	Commercial Aquaculture	B.Voc

S.No	Name of the New Courses	Department	Program
68	Freshwater, Brackishwater and Mariculture	Commercial Aquaculture	B.Voc
69	Crafts and Gears in Aquaculture	Commercial Aquaculture	B.Voc
70	FOOD PRODUCTION TRENDS	Food Technology	B.Sc
71	FUNDAMENTALS OF FOOD MICROBIOLOGY	Food Technology	B.Sc
72	FUNDAMENTALS OF FOOD CHEMISTRY	Food Technology	B.Sc
73	FOOD QUALITY MANAGEMENT	Food Technology	B.Sc
74	BASIC PRINCIPLES OF FOOD PRESERVATION	Food Technology	B.Sc
75	FOOD SCIENCE AND NUTRITION-1	Food Technology	B.Sc
76	Principles of Management	Digital Marketing	BBA
77	Managerial Economics	Digital Marketing	BBA
78	Fundamentals of Digital Marketing and Digital Markets	Digital Marketing	BBA
79	Accounting For Management	Digital Marketing	BBA
80	Digital & Social Media Marketing	Digital Marketing	BBA
81	E-Commerce	Digital Marketing	BBA
82	Applied Mathematics-1	Software Development	B.Voc
83	Introduction to IT Tools	Software Development	B.Voc
84	IT Foundations and Programming Concepts	Software Development	B.Voc
85	Photoshop and Flash	Software Development	B.Voc
86	Applied Mathematics-II	Software Development	B.Voc
87	C Programming	Software Development	B.Voc
88	Internet Applications	Software Development	B.Voc
89	Microsoft Advanced Excel	Software Development	B.Voc


IQAC Coordinator

CO-ORDINATOR
IQAC
 Ideal College of Arts & Sciences (A)
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Principal

Principal
 Ideal College of Arts & Sciences (A)
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IDEAL COLLEGE OF ARTS AND SCIENCES (A)
ENGLISH COURSE STRUCTURE UNDER CBCS
2020-2021

Year	Semester	Title	Max. Marks	Credits
I	i	Skill Enrich-I English Praxis Course -I (A Course in Communication & Soft skills)	100	03
	ii	Skill Enrich-II English Praxis Course -II (A Course in Reading and Writing Skills)	100	03
II	III	Skill Enrich-III English Praxis Course -III (A Course in Communication & Soft skills)	100	03
		Communication & Soft skills (CSS-I)	50	02
	IV	(Foundation Course-IV) A Course in Communication & Soft Skills (CSS-II)	50	02

IDEAL COLLEGE OF ARTS AND SCIENCES(A)
TELUGU COURSE STRUCTURE UNDER CBCS
2020-2021

Year	Semester	Title	Max. Marks	Credits
I	I	Kavya Sudha	100	03
	II	Adhunika Bharathi	100	03
		Performing Arts	50	02
II	III	Saahithi Sourabham	100	03
	IV	Leadership Education	50	02

**IDEAL COLLEGE OF ARTS AND SCIENCES(A)
PHYSICS COURSE STRUCTURE UNDER CBCS**

2020-2021

Year	Semester	Paper	Title	Marks	Credits	
I	I	I	Mechanics, waves and oscillations	100	04	
			Practical	50	01	
		Skill Development	Electrical Appliances	50	02	
	II	II	II	Waves optics	100	04
				Practical	50	01
		Skill Development	Solar Energy	50	02	
			Community Service Project	100	04	
II	III	III	Optics	100	03	
			Practical	50	02	
	IV	IV	Thermodynamics & Radiation Physics	100	03	
			Practical	50	02	
III	V	V	Electricity magnetions & Electronics.	100	03	
			Practical	50	02	
		VI	VI	Modern Physics	100	03
				Practical	50	02
	VI any one paper from A,B and C any one cluster from I, II, and III	VII A	VII A	Anylos and digital electronics	100	03
				Practical	50	02
		VII A1	VII A1	Introduction to micro procesolsand micro controller	100	03
				Practical	50	02
		VII A2	VII A2	Computational Methods and programming	100	03
				Practical	50	02
		VII A3	VII A3	Electronic Instrumentation	100	03
				Practical		02
		VII B	VII B	Material Science	100	03
				Practical	50	02
		VII B1	VII B1	Fundamentals of Nano Science	100	03
				Practical	50	02
	VII B2	VII B2	Synthesis and charactriztion of nano Materials	100	03	
			Practical	50	02	
	VII B3	VII B3	Applications of Nano Materials and Devices	100	03	
			Practical	50	02	
VII C	VII C	Renewable Energy	100	03		
		Practical	50	02		
VII C1	VII C1	Solar thermal and photo voltaic aspects	100	03		
		Practical	50	02		
VII C2	VII C2	Wind hydro energies	100	03		
		Practical	50	02		
VII C3	VII C3	Energy Storage divices	100	03		
		Practical	50	02		

IDEAL COLLEGE OF ARTS & SCIENCES : KAKINADA

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Department of Computer Science

Structure of Computer Science Syllabus 2020-2021

Semester	Paper Code	Subject	Hrs./ Week	Credits	IA	ES	Total
I B.Sc. Computer Science Syllabus under CBCS w.e.f. 2020-2021 Batch							
I	C1	Problem Solving in C	4	3	30	70	100
	C1-P	Problem Solving in C Lab	2	2		50	50
II	C2	Data Structures using C	4	3	30	70	100
	C2-P	Data Structures using C Lab	2	2		50	50
		Community Service Project Work (2 months)		4			100
II B.Sc. Computer Science Syllabus under CBCS w.e.f. 2015-2016 Batch							
III	3	Object Oriented Programming Using Java	4	3	25	75	100
	3-P	Object Oriented Programming Using Java Lab	2	2		50	50
IV	4	Data Structures	4	3	25	75	100
	4-P	Data Structures using Java Lab	2	2		50	50
III B.Sc. Computer Science Syllabus under CBCS w.e.f. 2015-2016 Batch							
V	5	Database Management System	4	3	25	75	100
	5-P	Database Management System Lab	2	2		50	50
	6	Software Engineering	4	3	25	75	100
	6-P	Software Engineering Lab	2	2		50	50
VI	7	<u>Elective-I</u> Computer Networks	3	3	25	75	100
	7-P	Computer Networks Lab	2	2		50	50
	8A	<u>Elective-II (Cluster-A)</u> 1. Foundations of Data Science	3	3	25	75	100
	8A-P	Foundations of Data Science Lab (through R)	2	2		50	50
	8B	2. Big Data Technology	3	3	25	75	100
	8B-p	Big Data Technology Lab (Hadoop)	2	2		50	50
	8C	Project Work	5	5	25	75	100

IDEAL COLLEGE OF ARTS AND SCIENCES(A)
CHEMISTRY COURSE STRUCTURE UNDER CBCS

2020-2021

Year	Semester	Paper	Title	Marks	Credits	
I	I	I	Inorganic and Physical Chemistry	100	03	
			Practical - I	50	02	
	II	II	Organic and General chemistry	100	03	
			Practical - II	50	02	
				Community Service Project	100	04
II	III	III	Inorganic and Organic Chemistry	100	03	
			Practical - III	50	02	
	IV	IV	Physical Chemistry and Spectroscopy	100	03	
			Practical - IV	50	02	
III	V	V	Inorganic, Organic and Physical chemistry	100	03	
			Practical-V	50	02	
		VI	VI	Inorganic, Organic and Physical chemistry	100	03
				Practical -VI	50	02
	VI Any one Elective paper from VII A, B, C	VII A	VII A	Elective: Analytical Method in Chemistry	100	03
				Practical- VII A	50	02
		VII B	VII B	Elective: Environmental Chemistry	100	03
				Practical: VII B	50	02
		VII C	VII C	Elective : Green Chemistry	100	03
				Practical -VII C	50	02
	Any one Cluster from	VIII A	VIII A	Cluster Elective I:		
				VIII-A-1 : Polymer Chemistry	100	03
				VIII-A-2: Instrumental Methods of Analysis	100	03
				VIII-A-3: Analysis of Drugs, Foods, Dairy Products & Biochemical Analysis	100	03
				Practical VIII-A-1	50	02
Practical VIII-A-2				50	02	
Project Work				50	02	
Cluster Elective II:						
VIII - B-1 Fuel Chemistry and Batteries				100	03	
VIII - B-2 Inorganic materials of Industrial Importance				100	03	
		VIII B				

Year	Semester	Paper	Title	Marks	Credits	
	VIII A, B, C	VIII B	VIII - B-3 Analysis of Industrial Products	100	03	
			Practical VIII - B-1	50	02	
			Practical VIII - B-2	50	02	
			Project Work	50	02	
		VIII C	Cluster Elective 1I:			
			VIII - C-1 Organic Spectroscopic Techniques	100	03	
			VIII - C-2 Advanced Organic Reactions	100	03	
			VIII - C-3 Pharmaceutical and Medicinal Chemistry	100	03	
			Practical VIII - C-1	50	02	
			Practical VIII - C-2	50	02	
			Project Work	50	02	

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BOTANY COURSE STRUCTURE UNDER CBCS

2020-2021

Year	Semester	Paper	Title	Hours/ Week	Max. Marks(S EE)	Marks in CIA	Credits
I	I	I	Fundamentals of Microbes and Non-Vascular Plants	04	70	30	03
			Fundamentals of Microbes and Non-Vascular Plants - Lab	03	Max.Marks-50 internal assessment at semester end		02
	II	II	Basics of Vascular Plants and Phytogeography	04	70	30	03
			Basics of Vascular Plants and Phytogeography - Lab	03	Max.Marks-50 External assessment at semester end		02
	II		Community Service Project		100		04
	II	III	III	Plant Taxonomy and Embryology	04	75	25
Plant Taxonomy and Embryology - Lab				03	Max.Marks-50 internal assessment at semester end		02
IV		IV	Plant Physiology and Metabolism	04	75	25	03
			Plant Physiology and Metabolism - Lab	03	Max.Marks-50 External assessment at semester end		02
V	V	V	Cell Biology, Genetics and Plant Breeding	04	75	25	03
			Cell Biology, Genetics and Plant Breeding - Lab	03	Max.Marks-50 internal assessment at semester end		02
				Plant Ecology and Phytogeography	04	75	25

Year	Semester	Paper	Title	Hours/ Week	Max. Marks(S EE)	Marks in CIA	Credits
III	VII & VIII any one paper from A,B and C any one cluster from I, II, and III	VI	Plant Ecology and Phytogeography - Lab	03	Max.Marks-50 internal assessment at semester end		02
		VII (A) - Elective	Organic forming and sustainable agriculture	04	75	25	03
			Organic forming and sustainable agriculture - Lab	03	Max.Marks-50 External assessment at semester end		02
		VII (B) Elective	Nursery, Gardening and Floriculture	04	75	25	03
			Nursery, Gardening and Floriculture - Lab	03	Max.Marks-50 External assessment at semester end		02
		VII (C) Elective	Plant Tissue culture and its Biotechnological applications	04	75	25	03
			Plant Tissue culture and its Biotechnological applications - Lab	03	Max.Marks-50 External assessment at semester end		02
		VIII (A1) Cluster	Plant Diversity and Human welfare	04	75	25	03
			Plant Diversity and Human welfare - Lab	03	Max.Marks-50 External assessment at semester end		02
		VIII (A2) Cluster	Ethanobotany and medicinal botany	04	75	25	03
			Ethanobotany and medicinal botany - Lab	03	Max.Marks-50 External assessment at semester end		02
			Pharmacognosy and phytochemistry	04	75	25	03

Year	Semester	Paper	Title	Hours/ Week	Max. Marks(S EE)	Marks in CIA	Credits
		VIII (A3) Cluster	Pharmacognosy and phytochemistry Lab	03	Max.Marks-50 External assessment at semester end		02
		VIII (B1) Cluster	Biological Instrumentation and methadology	04	75	25	03
			Biological Instrumentation and methadology - Lab	03	Max.Marks-50 External assessment at semester end		02
		VIII (B2) Cluster	Mushroom cultivation and Technology	04	75	25	03
			Mushroom cultivation and Technology - lab	03	Max.Marks-50 External assessment at semester end		02
		VIII (B3) Cluster	Internship/project work preferably either in an institution or Industry	—	100		03

IDEAL COLLEGE OF ARTS & SCIENCES, KAKINADA

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Dr. PVN RAJU VIDYAPRANGANAM
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ZOOLOGY COURSE STRUCTURE UNDER CBCS 2020-21

YEA R	SEMESTER	PAPER	TITLE	MARKS	CREDITS		
I	I	I	Animal Diversity, Biology of Non chordates	100	03		
			Practical - I	50	02		
	II	II	Animal Diversity - Biology of Chordates	100	03		
			Practical - II	50	02		
			Community Project	100	04		
II	III	III	Cytology, Genetics and evolution	100	03		
			Practical - III	50	02		
	IV	IV	Embryology, Physiology and ecology	100	03		
			Practical - IV	50	02		
			V	Animal Biotechnology	100	03	
			Practical - V	50	02		
III	V	V	Animal Biotechnology	100	03		
			Practical - V	50	02		
		VI	VI	Animal Husbandry	100	03	
				Practical - VI	50	02	
			Any one Paper from A, B and C	VII (A)	Immunology	100	03
					Practical - VII (A)	50	02
	** Any one cluster from I, II and III	VII (B)*	VII (B)*	Cellular Metabolism and Molecular Biology	100	03	
				Practical - VII (B)	50	02	
		VII (C)*	VII (C)*	Bioinformatics	100	03	
				Practical - VII (C)	50	02	
		VI	Cluster VIII-A**	Cluster Electives –VIII-A :			
				Medical Diagnostics			
				1. Clinical Biochemistry	100	03	
				2. Haematology	100	03	
	3. Clinical Microbiology			100	03		
Practical – VIII: 1	50			02			
Practical – VIII: 2	50			02			
Project Work	50	02					
Cluster VIII-B**	Cluster VIII-B**	Cluster Electives –VIII-B :					
		Aquaculture					
		1. Principles of Aquaculture	100	03			
		2. Aquaculture Management	100	03			
		3. Postharvest Technology	100	03			
Practical – VIII: 1	50	02					

			Practical – VIII: 2	50	02
			Project Work	50	02
		Cluster VIII-C**	Cluster Electives – VIII-C : Sericulture		
			1. Gen. Sericulture, Mulberry cultivation and Management	100	03
			2. Biology of Mulberry Silk worm and Silk worm rearing Technology	100	03
			3. Silk Technology, Silk Marketing and Extension	100	03
			Practical – VIII: 1	50	02
			Practical – VIII: 2	50	02
			Project Work	50	02

**IDEAL COLLEGE OF ARTS AND SCIENCES(A)
HISTORY COURSE STRUCTURE UNDER CBCS**

2020-2021

Year	Semester	Title	Max. Marks	Credits
I	I	ANCIENT INDIAN HISTORY & CULTURE	100	04
	II	Medieval Indian History & Culture	100	04
		Community Service Project	100	04
II	III	Indian History (1526-1761)	100	04
	IV	Indian History and Culture	100	04
III	V	History of Modern World (1453 to 1821)	100	04
		History of Culture of Andhra Desha	100	04
	VI	History of Modern World	100	04
		Cultural Tourism	100	04
		Popular Movements in Andhra Desa	100	04
		Contemporary History of Andhra Pradesh	100	04

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POLITICAL SCIENCE COURSE STRUCTURE UNDER CBCS
2020-2021

Year	Semester	Title	Max. Marks	Credits
I	I	Introduction to Political Science	100	04
	II	Basic Organs of the Government	100	04
		Community Service Project	100	04
II	III	Indian Government and Politics	100	04
	IV	Indian Political Process	100	04
III	V	Indian Political Thought	100	04
	VI	Western Political Thought	100	04
		International Relations	100	04
		Indian Foreign Policy	100	04
Contemporary Global Issues		100	04	

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DEPARTMENT OF ECONOMICS

B.A ECONOMICS COURSE STRUCTURE 2020-2021

YEAR	Paper	Semester	Title of the Paper	Credits	Marks
First Year	Paper – I	Semester - I	Micro Economics Analysis	4	100
	Paper – II	Semester – II	Macro Economics Analysis	4	100
			Community Service Project	4	100
Second Year	Paper – III	Semester – III	Macro Economics – I	4	100
	Paper – IV	Semester – IV	Macro Economics – II	4	100
Third Year	Paper – V	Semester – V	Economic Development and Indian Economy	4	100
	Paper – VI	Semester – V	Indian and Andhra Pradesh Economy	4	100
	Paper – VII A	Semester – VI	Agricultural Economics	4	100
	Cluster Elective - (A) Agri Business			4	100
	Paper – VIII A-1	Semester – VI	Agri Business Environment in Andhra Pradesh	4	100
	Paper – VIII A-2	Semester – VI	Agricultural output marketing	4	100
	Paper – VIII A-3	Semester – VI	Project Work	4	100

IDEAL COLLEGE OF ARTS AND SCIENCES(A)
COMMERCE COURSE STRUCTURE UNDER CBCS

2020-2021

Year	Semester	Title	Max. Marks	Credits
I	I	Fundamentals of Accounting	100	04
		Business Organization and Management	100	04
		Business Environment	100	04
	II	Financial Accounting	100	04
		Business Economics	100	04
		Banking Theory & Practice	100	04
		Community Service Project	100	04
II	III	Corporate Accounting	100	04
		Banking and theory practices	100	04
		Business statistics	100	04
	IV	Accounting for service Organizations	100	04
		Income Tax	100	04
		Business Law	100	04
		Entrepreneurship	50	02
III	V	Business Leadership	50	02
		Cost Accounting	100	04
		Goods and service tax	100	04
		Commercial Geography	100	04
		Rural and farm credit	100	04
		Central banking	100	04
		Project work	100	04
	VI	Tally	100	04
		Marketing	100	04
		Auditing	100	04
		Management accounting	100	04
		Marketing financial service	100	04
		Financial Service	100	04
		Project work	100	04

IDEAL COLLEGE OF ARTS AND SCIENCES

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VIDYAPRANGANAM, KAKINADA

Bachelor of Vocation: sustainable Agriculture

Course structure and syllabi: w.e from 2021-22 Admitted

Batch Semester -I

S. No	Course	Name of the Subject	Total Marks	Mid. Sem Exam	Sem.End Exam	Teaching Hours	Credits
1	First Language	English	100	30	70	4	3
2	Second Language	Telugu	100	30	70	4	3
3	Life Skill Course	Human Values & Professional Ethics	50	-- -	50	2	2
4	Skill Development Course	Plant Nursery (Botany)	50	---	50	2	2
5	Major 1	chemistry	100	30	70	4	4
	Major 2	Seed science and technology	100	30	70	4	4
	Core 1	Fundamentals of horticulture	100	30	70	4	4
8	Core 2	Fundamentals of agronomy	100	30	70	4	3
9	Major 1 Lab	Chemistry Lab	50	-- -	50	2	1
10	Major 2 Lab	Seed science and technology Lab	50	---	50	2	1
11	Core 1 Lab	Fundamentals of Horticulture lab	50	---	50	2	1
12	Institutional On Job Training	On Job Training	50	---	50	2	1
			900	180	720	36	29

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(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA

Bachelor of Vocation: Sustainable Agriculture
Course structure and syllabi: w.e from 2020-2020 Admitted Batch
Semester III

II Year; Semester III

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1.	English Communication Skills-III	100	25	75	4	2
2.	Chemistry (Inorganic and Organic Chemistry)	100	25	75	4	3
3.	Lab Practical	50		50	2	2
4.	Protected cultivation of Horticultural crops	100	25	75	4	3
5.	Lab Practical	50		50	2	2
Skill Education						
1	Fundamentals of Plant Pathology	100	25	75	4	4
2	Lab Practical	50	0	50	2	2
3	Commercial vegetable production	100	25	75	4	4
4	Lab Practical	50	0	50	2	2
5	Agriculture Extension, Rural Sociology And Psychology	100	25	75	4	4
6	On Job Training	50	0	50		2
	Total	850			32	30

Chaitan

Srinivasanthy CAT

N. Venkatesh

Harsh

IDEAL COLLEGE OF ARTS AND SCIENCES
 (A.P. GOVT., AIDED, AUTONOMOUS & NAAC B)
 DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
Bachelor of Vocation: Sustainable Agriculture
Course structure and syllabi: w.e from 2020-20 Admitted Batch
Semester IV

II Year; Semester IV

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1.	Computer fundamental and office tools	100	25	75	4	2
2.	Chemistry (Spectroscopy and Physical Chemistry)	100	25	75	2	3
3.	Lab Practical	50		50		2
4.	Plant Physiology	100	25	75	4	3
5.	Lab Practical	50		50	2	2
Skill Education						
1.	Weed Management and Fodder crop production	100	25	75	4	4
2.	Lab Practical	100	25	75	4	4
3.	Farm Power and Machinery	50	0	50	2	2
4.	Lab Practical	50	0	50	2	2
5.	Livestock Farming	100	25	75	4	4
6.	On Job Training	50	0	50		2
	Total	850			32	30

Chaitanya

N. Varaprasad.

Saenivarmusthyat

Harish.

IDEAL COLLEGE OF ARTS AND SCIENCES
(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B) DR.
P.V.N. RAJU VIDYAPRANGANAM, KAKINADA

Bachelor of Vocation: Sustainable Agriculture

Course structure and syllabi: w.e from 2021-22 Admitted Batch

Semester -I

S. No	Name of the Subject	Total Marks	Mid. Sem Exam	Sem. End Exam	Teaching Hours	Credits
1	English	100	30	70	4	3
2	Telugu	100	30	70	4	3
3	Basic computer application (LS)	50	-- -	50	2	2
4	Electrical appliances (SD)	50	---	50	2	2
5	Chemistry (Inorganic and Physical chemistry)	100	30	70	4	4
6	Chemistry (Practical- Analysis of salt mixture)	50	30	50	2	1
7	Introduction to Agronomy	100	30	70	4	4
8	Introduction to Agronomy Practical	50		70	2	1
9	Introduction to soil science	100	30	70	4	4
10	Introduction to soil science practical	50	---	50	2	1
11	Principles of plant breeding	100	30	70	4	4
12	On Job Training	50	---	50	2	1
		900	180	720	36	29

BA
Teacher B

M. Hanika

Y. Kusa Raju

IDEAL COLLEGE OF ARTS AND SCIENCES
(A.P. GOVT., AIDED, AUTONOMOUS &
NAAC B) DR. P.V.N. RAJU
VIDYAPRANGANAM, KAKINADA
Bachelor of Vocation: sustainable Agriculture
Course structure and syllabi: w.e from 2021-22 Admitted
Batch Semester –II

S.No	Course	Name of the Subject	Total Marks	Mid. Sem Exam	Sem.End Exam	Teaching Hours	Credits
1	First Language	English	100	30	70	4	3
2	Second Language	Telugu	100	30	70	4	3
3	Life Skill Course	Information & Communication Technology (ICT)	50	---	50	2	2
4	Skill Development Course -1	Solar Energy	50	---	50	2	2
5	Skill Development Course -2	Advertising	50	---	50	2	2
5	Major 1	chemistry	100	30	70	4	4
6	Major 2	Seed Science and technology	100	30	70	4	4
7	Core 1	Fundamentals of soil science	100	30	70	4	4
8	Core 2	Fundamentals of entomology	50	---	50	2	2
9	Major 1 Lab	Chemistry Lab	50	---	50	2	1
10	Major 2 Lab	Seed science and technology Lab	50	---	50	2	1
11	Core 1 Lab	Fundamentals of soil science -lab	50	---	50	2	1
12	Core2 lab	Fundamentals of entomology	50	---	50	2	1
			900	180	720	36	30

First spell between First year and Second Year Apprenticeship: Credits: 4; Marks: 100

Dr. Ann
Dr. (Sangeetha, M)

Shreeya B

Ideal College of Arts & Sciences (A), Kakinada
Bachelor of Vocational: Industrial Aquaculture and Fisheries
2020-2021
II Year; Semester III

S.No	Course	Total Marks	Mid Sem Exam*	Sem End Exam	Teachning Hours	Credits
General Education						
1.	English Communication Skills-III	100	25	75	4	2
2.	Organic and Inorganic Chemistry	100	25	75	4	3
3.	Lab Practical	50		50	2	2
4.	Zoology (Cytology, Genetics and Evalution)	100	25	75	4	3
5.	Lab Practical	50		50	2	2
Skill Education						
1	Inland and marine Fisheries	100	25	75	4	4
2	Lab Practical	50	0	50	2	2
3	Aquaculture Nutrition	100	25	75	4	4
4	Lab Practical	50	0	50	2	2
5	Fish Genetics & Aquaculture Biotechnology	100	25	75	4	4
6	On Job Training	50	0	50		2
	Total	850			32	30

IDEAL COLLEGE OF ARTS & SCIENCES (A), KAKINADA
Bachelor of Vocation: Industrial Aquaculture and Fisheries

Semester IV, 2020-2021

S.No	Course	Total Marks	Mid Sem Exam*	Sem End Exam	Teachning Hours	Credits
General Education						
1.	Computer fundamental and office tools	100	25	75	4	2
2.	Organic and Inorganic Chemistry & Physical chemistry	100	25	75	2	3
3.	Lab Practical	50		50		2
4.	Zoology (Embryology, Physiology and Ecology)	100	25	75	4	3
5.	Lab Practical	50		50	2	2
Skill Education						
1	Pathology in Aquaculture	100	25	75	4	4
2	Lab Practical	50	0	50	2	2
3	Ornamental Fisheries	100	25	75	4	4
4	Lab Practical	50	0	50	2	2
5	Fishery Microbiology and By-products	100	25	75	4	4
6	On Job Training	50	0	50		2
	Total	850			32	30

IDEAL COLLEGE OF ARTS AND SCIENCES
(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
B.Voc., Industrial Aquaculture & Fisheries
I Year ,II semester 2020-2021

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1.	English	100	30	70	4	3
2.	Second language-Telugu	100	30	70	4	3
3.	Life Skill Course	50	-	70	2	2
4.	Skill Development Course	50	-	50	2	2
	Skill Education	50	-	50	2	2
1	Zoology	100	30	70	4+2	4
2	Lab Practical ✓	50	-	50		1
3	Chemistry	100	30	70	4+2	4
4	Lab Practical ✓	50	-	50		1
5	Freshwater, Brackishwater and Mariculture	100	30	70	4+2	4
6	Lab Practical ✓	50	-	50		1
7	Crafts and Gears in Fisheries	50	-	50	2+2	2
8	Lab Practical ✓	50	-	50		1
	Total	850			34+2	28+2

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IDEAL COLLEGE OF ARTS AND SCIENCES
(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
Bachelor of Vocation: Commercial Aquaculture
Course structure and syllabi: w.e from 2020-2021 Admitted Batch
Semester I

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1.	English	100	30	70	4	3
2.	Second language-Telugu	100	30	70	4	3
3.	Life Skill Course	50	-	70	2	2
4.	Skill Development Course	50	-	50	2	2
Skill Education						
1	Zoology	100	30	70	4+2	4
2	Lab Practical	50	-	50		1
3	Chemistry	100	30	70	4+2	4
4	Lab Practical	50	-	50		1
5	Biology of Finfishes and shellfishes	100	30	70	4+2	4
6	Lab Practical	50	-	50		1
	Principles of Aquaculture	50	-	50	2+2	2
	Lab Practical	50	-	50		1
	Total	850			34	28

IDEAL COLLEGE OF ARTS AND SCIENCES
(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
B.Voc., Commercial Aquaculture
I Year ,II semester 2020-2021

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1.	English	100	30	70	4	3
2.	Second language-Telugu	100	30	70	4	3
3.	Life Skill Course	50	-	70	2	2
4.	Skill Development Course	50	-	50	2	2
Skill Education						
1	Zoology	100	30	70	4+2	4
2	Lab Practical	50	-	50		1
3	Chemistry	100	30	70	4+2	4
4	Lab Practical	50	-	50		1
5	Freshwater, Brackishwater and Mariculture	100	30	70	4+2	4
6	Lab Practical	50	-	50		1
7	Crafts and Gears in Fisheries	50	-	50	2+2	2
8	Lab Practical	50	-	50		1
	Total	850			34	28

IDEAL COLLEGE OF ARTS AND SCIENCES
(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
Bachelor of Science: Food Technology
Course structure and syllabi: w.e.f 2020-21 Admitted Batch
Semester I

Semester – I

Sl. No.	Course	Name of the subject	Total Marks	Mid. Sem. Exam*	Sem. End Exam	Teaching Hours	Credits
1.	First Language	English	100	30	70	4	3
2.	Second Language	Telugu	100	30	70	4	3
3.	Life Skill Course	Human values and professional ethics	50	---	50	2	2
4.	Skill Development Course	Electrical Appliances	50	---	50	2	2
5.	Major 1	Food Production Trends	100	30	70	6	5
6.	Major 2	Fundamentals of Food Microbiology	100	30	70	4	4
7.	Major 2 lab	Fundamentals of Food Microbiology Lab	50	---	50	2	1
8.	Major 3	Fundamentals of Food Chemistry	100	30	70	4	4
9.	Major 3 lab	Fundamentals of Food Chemistry Lab	50	---	50	2	1
Total			700	150	550	30	25

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P. L. L.

*S. Swendra /
H. S. S.*

IDEAL COLLEGE OF ARTS AND SCIENCES
(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
Bachelor of Sciences: Food Technology
Course structure and syllabi: w.e.f 2019-20 Admitted Batch
Semester II

Semester – II

Sl. No.	Course	Name of the subject	Total Marks	Mid. Sem. Exam	Sem. End Exam	Teaching Hours	Credits
1.	First Language	English	100	30	70	4	3
2.	Second Language	Telugu	100	30	70	4	3
3.	Life Skill Course	Information & communication Technology (ICT)	50	---	50	2	2
4.	Skill Development Course-1	Solar Energy	50	---	50	2	2
5.	Skill Development Course-2	Advertising	50	---	50	2	2
6.	Major 1	Food Quality Management	100	30	70	6	5
7.	Major 2	Basic Principles of Food Preservation	100	30	70	4	4
8.	Major 3	Food Science and Nutrition	100	30	70	4	4
9.	Major 2 lab	Basic Principles of Food Preservation Lab	50	---	50	2	1
10.	Major 3 lab	Food Science and Nutrition Lab	50	---	50	2	1
Total			750	150	600	32	27

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IDEAL COLLEGE OF ARTS AND SCIENCES
(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM
KAKINADA

20-21

BBA (Digital Marketing) COURSE STRUCTURE

Semester – I

Sl. No.	Course	Name of the subject	Total Marks	Mid. Sem. Exam*	Sem. End Exam	Teaching Hours	Credits
1.	First Language	English	100	30	70	4	3
2.	Second Language	(Tel/Hindi/Urdu/Sans)	100	30	70	4	3
3.	Life Skill Course	Human Values & Professional Ethics	50	---	50	2	2
4.	Skill Development Course	Electrical Appliances	50	---	50	2	2
5.	CORE 1	Principles of Management	100	30	70	5	4
6.	CORE 2	Managerial Economics	100	30	70	5	4
7.	CORE 3	Fundamentals of Digital Marketing and Digital Markets	100	30	70	5	4
Total			600	150	450	27	22

Semester – II

Sl. No.	Course	Name of the subject	Total Marks	Mid. Sem. Exam	Sem. End Exam	Teaching Hours	Credits
1.	First Language	English	100	30	70	4	3
2.	Second Language	(Tel/Hindi/Urdu/Sans)	100	30	70	4	3
3.	Life Skill Course	ICT (Information & communication Technology)	50	---	50	2	2
4.	Skill Development Course	Solar Energy	50	---	50	2	2
5.	Skill Development Course	Advertising	50	---	50	2	2
6.	CORE 1	Accounting for Managers	100	30	70	5	4
7.	CORE 2	Digital and Social Media Marketing	100	30	70	5	4
8.	CORE 3	E-commerce	100	30	70	5	4
9.	Internship	Two Months Social Immersion Internship	100	---	---	---	4
Total			750	150	500	29	28

[Signature]
Head of the Department
BBA (Digital Marketing)
Ideal College of Arts & Sciences (A)
Kakinada

IDEAL COLLEGE OF ARTS AND SCIENCES

(A.P. GOVT., AIDED, AUTONOMOUS & NAAC-B)

DR. P.V.N. RAJU VIDYAPRANGANAM

KAKINADA – 533002.

Department of Computer Science

Course structure and syllabi: w.e.from 2020 -21 Admitted Batch.

B.Voc – Software Development First Year – Semester - I

S.No	Course	Name of the Subject	Total Marks	Mid. Sem Exam	Sem.End Exam	Teaching Hours	Credits
1	First Language	English	100	30	70	4	3
2	Second Language	Telugu	100	30	70	4	3
3	Life Skill Course	Human Values & Professional Ethics	50	---	50	2	2
4	Skill Development Course	Plant Nursery (Botany)	50	---	50	2	2
5	Major 1	Applied Maths - 1	100	30	70	4	4
6	Major 2	Photoshop and Flash	100	30	70	4	4
7	Core 1	Introduction to IT Tools	100	30	70	4	4
8	Core 2	IT Foundations & Programming Concepts	50	--	50	2	2
9	Major 1 Lab	Applied Maths-1 Lab	50	---	50	2	1
10	Major 2 Lab	Photoshop Lab	50	---	50	2	1
11	Core 1 Lab	PC Software Lab	50	---	50	2	1
12	Core 2 Lab* Institutional On Job Training	On Job Training	50	---	50	2	1
			850	150	700	34	28

IDEAL COLLEGE OF ARTS AND SCIENCES

(A.P. GOVT., AIDED, AUTONOMOUS & NAAC-B)

DR. P.V.N. RAJU VIDYAPRANGANAM

KAKINADA – 533002.

Department of Computer Science

Course structure and syllabi: w.e.from 2020 -21 Admitted Batch.

B.Voc – Software Development

First Year – Semester - II

S.No	Course	Name of the Subject	Total Marks	Mid. Sem Exam	Sem.End Exam	Teaching Hours	Credits
1	First Language	English	100	30	70	4	3
2	Second Language	Telugu	100	30	70	4	3
3	Life Skill Course	Information & Communication Technology (ICT)	50	---	50	2	2
4	Skill Development Course -1	Solar Energy	50	---	50	2	2
5	Skill Development Course -2	Advertising	50	---	50	2	2
5	Major 1	Applied Maths -II	100	30	70	4	4
6	Major 2	C Programming	100	30	70	4	4
7	Core 1	Networking & Internet Applications	100	30	70	4	4
8	Core 2	Microsoft Advanced Excel	50	---	50	2	2
9	Major 1 Lab	MS Advanced Excel Lab	50	---	50	2	1
10	Major 2 Lab	C Programming Lab	50	---	50	2	1
11	Core 1 Lab	Networking Lab	50	---	50	2	1
12	Core 2 Lab* Institutional On Job Training	On Job Training	50	---	50	2	1
13	Apprenticeship	First Phase	---	---	---	---	4
			900	150	750	36	34

IDEAL COLLEGE OF ARTS AND SCIENCES
AUTONOMOUS & NAAC B
Dr. P.V.N RAJU VIDYAPRANGANAM
SAMALKOT ROAD, KAKINADA

LIST OF NEW COURSES

Academic Year - 2019-2020

S.No	Name of the New Courses	Department	Program
1	Fundamentals of Soil science	Sustainable Agriculture	B.Voc
2	Fundamentals of Agronomy	Sustainable Agriculture	B.Voc
3	Fundamentals of Horticulture	Sustainable Agriculture	B.Voc
4	Fundamentals of Entomology and insect ecology	Sustainable Agriculture	B.Voc
5	Manures, Fertilizers and soil fertility Management	Sustainable Agriculture	B.Voc
6	Plantation crops, spices and fruits	Sustainable Agriculture	B.Voc
7	Fundamentals of Plant Breeding and seed technology	Sustainable Agriculture	B.Voc
8	Fundamentals of Agricultural Engineering	Sustainable Agriculture	B.Voc
9	Chemistry (Inorganic and Organic chemistry)	Industrial Aquaculture and Fishers	B.Voc
10	Zoology (Animal Diversity and Non chordates)	Industrial Aquaculture and Fishers	B.Voc
11	Biology of Fin Fish & Shell Fish	Industrial Aquaculture and Fishers	B.Voc
12	Principles of Methods in Aquaculture	Industrial Aquaculture and Fishers	B.Voc
13	Fresh Water Aquaculture	Industrial Aquaculture and Fishers	B.Voc
14	Chemistry (Physical Chemistry)	Industrial Aquaculture and Fishers	B.Voc

S.No	Name of the New Courses	Department	Program
15	Zoology (Animal Diversity and Chordates)	Industrial Aquaculture and Fishers	B.Voc
16	Brackish Water Aquaculture & Mari Culture	Industrial Aquaculture and Fishers	B.Voc
17	Hatchery Technology in Aquatic Organisms	Industrial Aquaculture and Fishers	B.Voc
18	Gear and Craft in Aquaculture	Industrial Aquaculture and Fishers	B.Voc

M. Nitin Ram
 IQAC Coordinator
 CO-ORDINATOR
 IQAC
 Ideal College of Arts & Sciences (A)
 KAKINADA

K. Thulasi
 Principal
 Principal
 Ideal College of Arts & Sciences (A)
 KAKINADA

IDEAL COLLEGE OF ARTS AND SCIENCES
(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
Bachelor of Vocation: Sustainable Agriculture
Course structure and syllabi: w.e from 2020-20 Admitted Batch
Semester I

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1.	English Communication skills-1	100	30	70	4	2
2.	Environmental Studies	50	-	50	2	2
3.	Chemistry (Inorganic & Organic Chemistry)	100	30	70	4	2
4.	Lab Practical	50	-	50	2	2
5.	Fundamentals of Soil Science	100	30	70	4	2
6.	Lab Practical	50	-	50	2	2
Skill Education						
1	Fundamentals of Agronomy	100	30	70	4	4
2	Lab Practical	50	0	50	2	2
3	Fundamentals of Horticulture	100	30	70	4	4
4	Lab Practical	50	0	50	2	2
5	Fundamentals of Entomology and Insect ecology	100	30	70	4	4
6	On Job Training	50	0	50		2

900

Ch. A. Prasad

N. Vara Prasad.

IDEAL COLLEGE OF ARTS AND SCIENCES
(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA

B.Voc., Sustainable Agriculture

Course structure and syllabi: w.e from 2020-20 Admitted Batch

Semester II

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1.	English Communication skills -2	100	30	70	4	2
2.	Chemistry (Physical Chemistry)	100	30	70	4	3
3.	Lab Practical	50	-	50	2	2
4.	Manures, Fertilizers and Soil Fertility Management	100	30	70	2	3
5.	Lab Practical	50	-	50	2	2
Skill Education						
1	Plantation Crops, Spices and Fruits	100	30	70	4	4
2	Lab Practical	50	0	50	2	2
3	Fundamentals of Plant Breeding and Seed technology	100	30	70	4	4
4	Lab Practical	50	0	50	2	2
5	Fundamentals of Agricultural Engineering	100	30	70	4	4
6	On Job Training	50	0	50		2
	Total	850			32	30

Ch. Arjun

N. Vana Prasad

Srinivasan Arjun

Hareddy

IDEAL COLLEGE OF ARTS AND SCIENCES
 (A.P. GOVT., AIDED, AUTONOMOUS & NAAC B)
 DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
Bachelor of Vocation: Industrial Aquaculture and Fisheries
 Course structure and syllabi: w.e from 2019-20 Admitted Batch
 Semester I

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1.	English Communication skills-1	100	25	75	4	2
2.	Environmental Studies	50	-	50	2	2
3.	Chemistry (Inorganic & Organic Chemistry)	100	25	75	4	2
4.	Lab Practical	50	-	50	2	2
5.	Zoology (Animal Diversity and Nonchordates)	100	25	75	4	2
6.	Lab Practical	50	-	50	2	2
Skill Education						
1	Biology of Fin Fish & Shell Fishes	100	25	75	4	4
2	Lab Practical	50	0	50	2	2
3	Principles of Methods in Aquaculture	100	25	75	4	4
4	Lab Practical	50	0	50	2	2
5	Fresh Water Aquaculture	100	25	75	4	4
6	On Job Training	50	0	50		2
	Total	900			34	30

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Bhavi Shyer
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G. S. [Handwritten signature]

IDEAL COLLEGE OF ARTS AND SCIENCES
(A.P. GOVT., AIDED, AUTONOMOUS & NAAC B)
DR. P.V.N. RAJU VIDYAPRANGANAM, KAKINADA
B.Voc., Industrial Aquaculture and Fisheries
I Year ,II semester 2019-2020

S.No	Course	Total Marks	Mid Sem Exam	Sem End Exam	Teaching Hours	Credits
General Education						
1.	English Communication skills -2	100	25	75	4	2
2.	Chemistry (Physical Chemistry)	100	25	75	4	3
3.	Lab Practical	50	-	50	2	2
4.	Zoology (Animal Diversity and Chordates)	100	25	75	2	3
5.	Lab Practical	50	-	50	2	2
Skill Education						
1	Brackishwater Aquaculture and Mari culture	100	25	75	4	4
2	Lab Practical	50	0	50	2	2
3	Hatchery Technology in Aquatic Organisms	100	25	75	4	4
4	Lab Practical	50	0	50	2	2
5	Gear and Craft in Aquaculture	100	25	75	4	4
6	On Job Training	50	0	50		2
	Total	850			32	30

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 23/10/19

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 23/10/19
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 Bhavishyer
 dr. Sridhe
 G. Sridhe