

Creation of Nano-Enterprises through Discovery Approach

Integration of Skilling and Academics
in
Flexible Mode



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Director

Dayalbagh Educational Institute , Agra

DEI Education Policy 1975

Promotes:

Physical, intellectual, emotional & ethical integration

Spirit of truthfulness, temperance and courage

Humility, simple living, selfless service & sacrifice

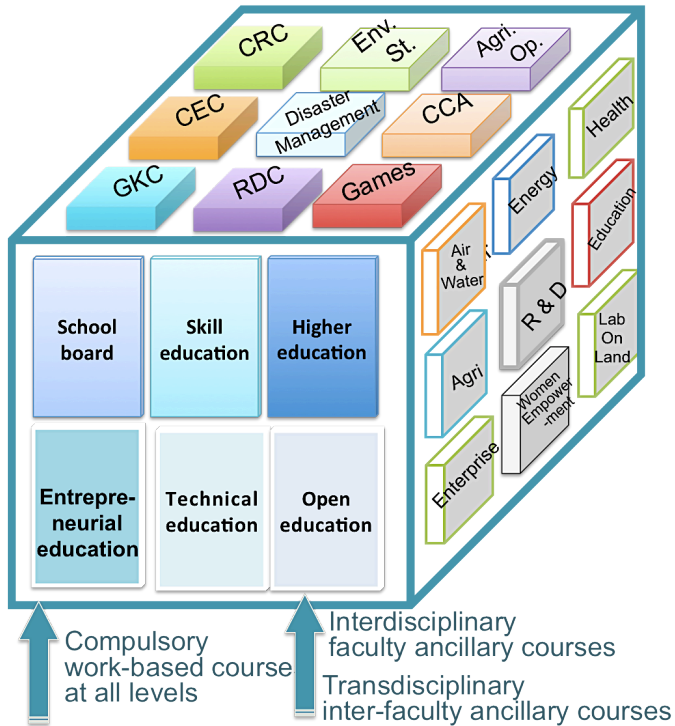
Scientific temper, training in practical science and technology

Willingness & capacity to work with one's hands

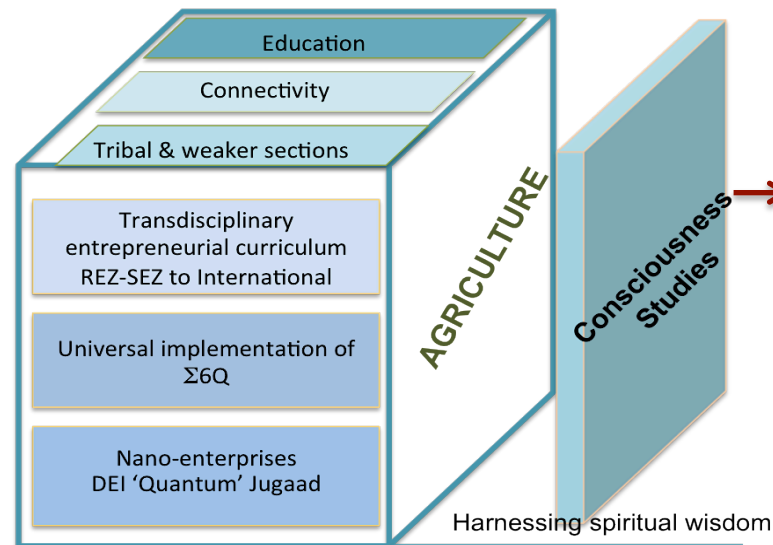
Respect for all beliefs and faiths

Creation of a spirit of Brotherhood of Man

Framework of Education in DEI



Harnessing the physical, intellectual and economic capital of individuals



Complete Well-Rounded Person

DEI's Strengths...

Entrepreneurial and Consciousness Education

Balanced development: body, mind & spirit

Developing a '6S' society (zero to infinity)

Socially relevant research: *jugaad* and frugal innovation

Better worldliness

Labs on land, Living laboratories

Advanced technology intervention

Integrated & inclusive societal development



Reaching the last, the least, the lowest and the lost

Multiple entry and exit pathways

Empowering weaker sections, women and children

Global Genetic Mc. Engg Competition, MIT- Bronze



Achieving more with less: beneficial to the public at large



Education at little (or no) cost to students

The Science of Consciousness: East-West Forum

Spirituality: Highest level of education

Quantum Computing, Physics and Consciousness Studies

Superman Evolutionary Scheme (Sant-Su Scheme)

EXCELLENCE with RELEVANCE



QANSAS



TSC East-West Forum

Socially
Relevant
International
Projects in
Tribal Villages

Entrepreneurship
(Value Addition) :
Quantum Jugaad

REZ to SEZ to
International
Markets

Student
sustenance model
through organic
agriculture

e-Mobility

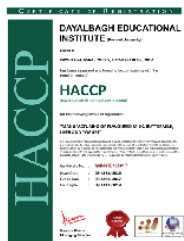
International
Dairy & Food
Processing

Renewable
Energy:
Solar System,
Smart Grid

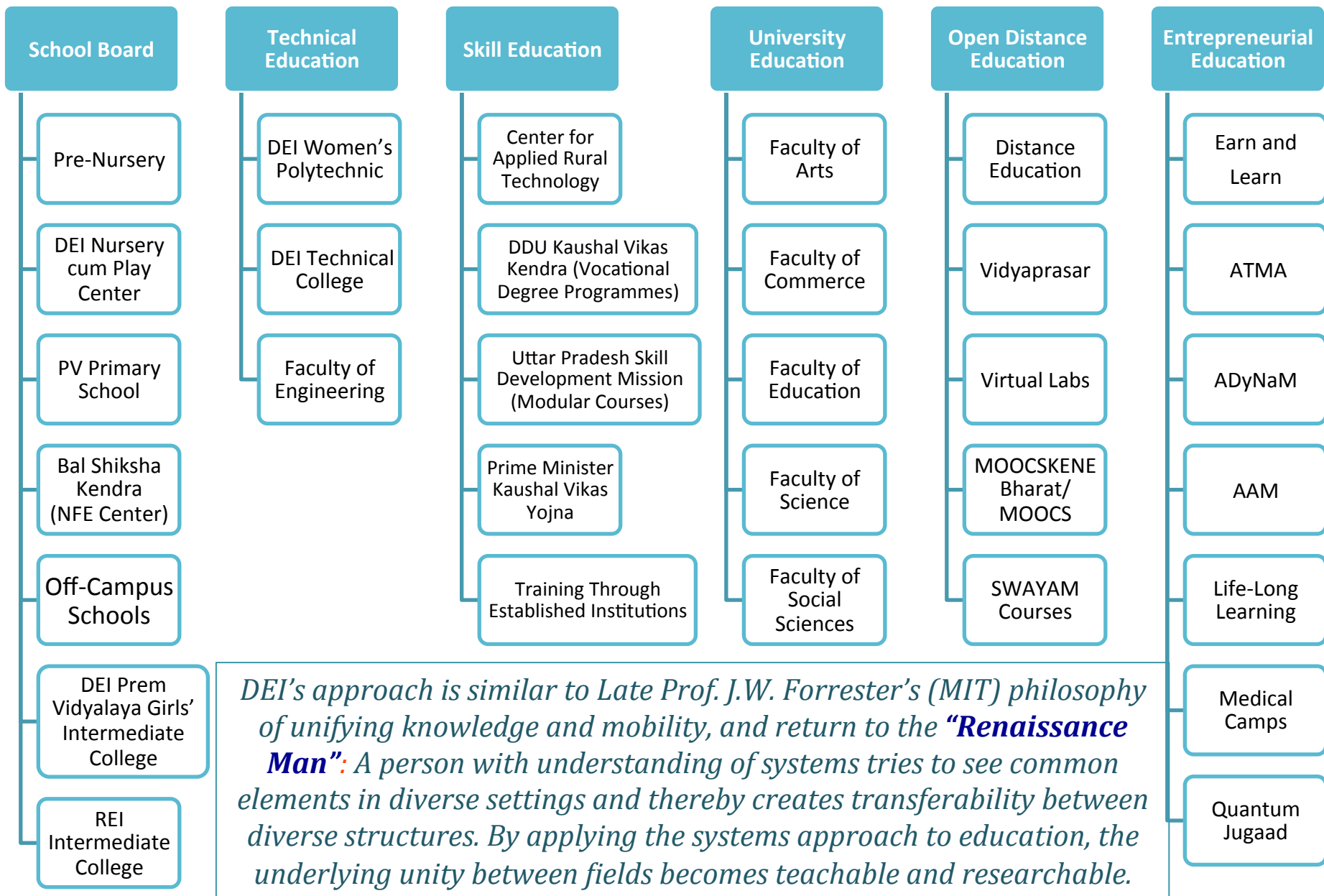
Media and
Telecommunication
for
Entrepreneurship
and Education in
Remote Villages

MOOCSKENE
Bharat

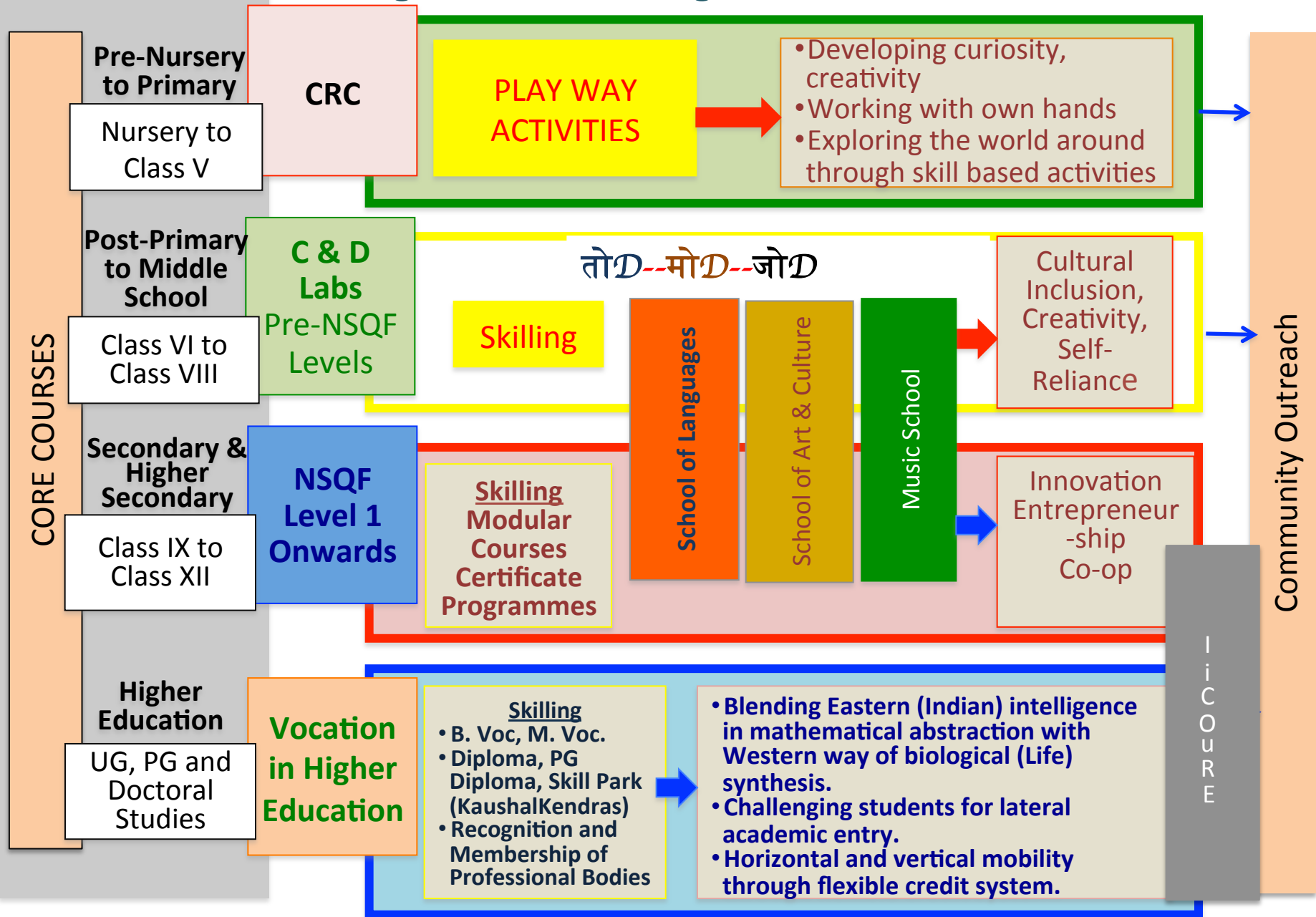
Innovative
&
(Re)Generative
Institute



Six Pillars of DEI Education: Systems Approach



Integration of Skilling & Mainstream Education



Approaches & Features

Common features in all schemes are:

- Student centric
- Flexibility to students
- Multiple entry and exit options
(certificate to Ph.D.)
- Lateral movement option
 - Vocational to Academic
 - Among models
 - Among disciplines
- Vertical Movement option
 - Higher degrees
 - Higher value programs
- Output driven options

Five approaches:

- Embedded
- Blended
- Appended
- Partnership
- Student Friendly

Embedded Model

Modular Bachelor Degree with transitions

BACHELOR DEGREE IN CONVENTIONAL EDUCATION

Module 9-12: Industry Practice for at least two modules

CE: Conventional Education
VE: Vocational Education
CC: Core Courses
Module: 9 weeks ($2\frac{1}{4}$ months)
2 Modules = 1 semester

MOOCSKENE Bharat
MOOCS, SWAYAM, OPEN
SOURCE for bridge courses
for earning credits

B.Sc/BA/B.Com

B.Sc/BA/B.Com specialized

VE (Voc1, Voc2)

VE (Voc1 OR Voc2)

MODULE-12

VE (Voc1, Voc2)

VE (Voc1 OR Voc2)

MODULE-11

VE (Voc1, Voc2)

VE (Voc1 OR Voc2)

MODULE-10

VE (Voc1, Voc2)

VE (Voc1 OR Voc2)

MODULE-9

VE (Voc1, Voc2)

Transition to
Specialization in vocation

MODULE-8

VE (Voc1, Voc2)

MODULE-7

VE (Voc1, Voc2)

MODULE-6

VE (Voc1, Voc2)

MODULE-5

VE (Voc1, Voc2) & **CC**

MODULE-4

VE (Voc1, Voc2) & **CC**

MODULE-3

VE (Voc1, Voc2) & **CC**

MODULE-2

CE + VE (Voc1, Voc2)
CC

CE + VE (Voc1, Voc2)
CC

CE & **CC**

CE & **CC**

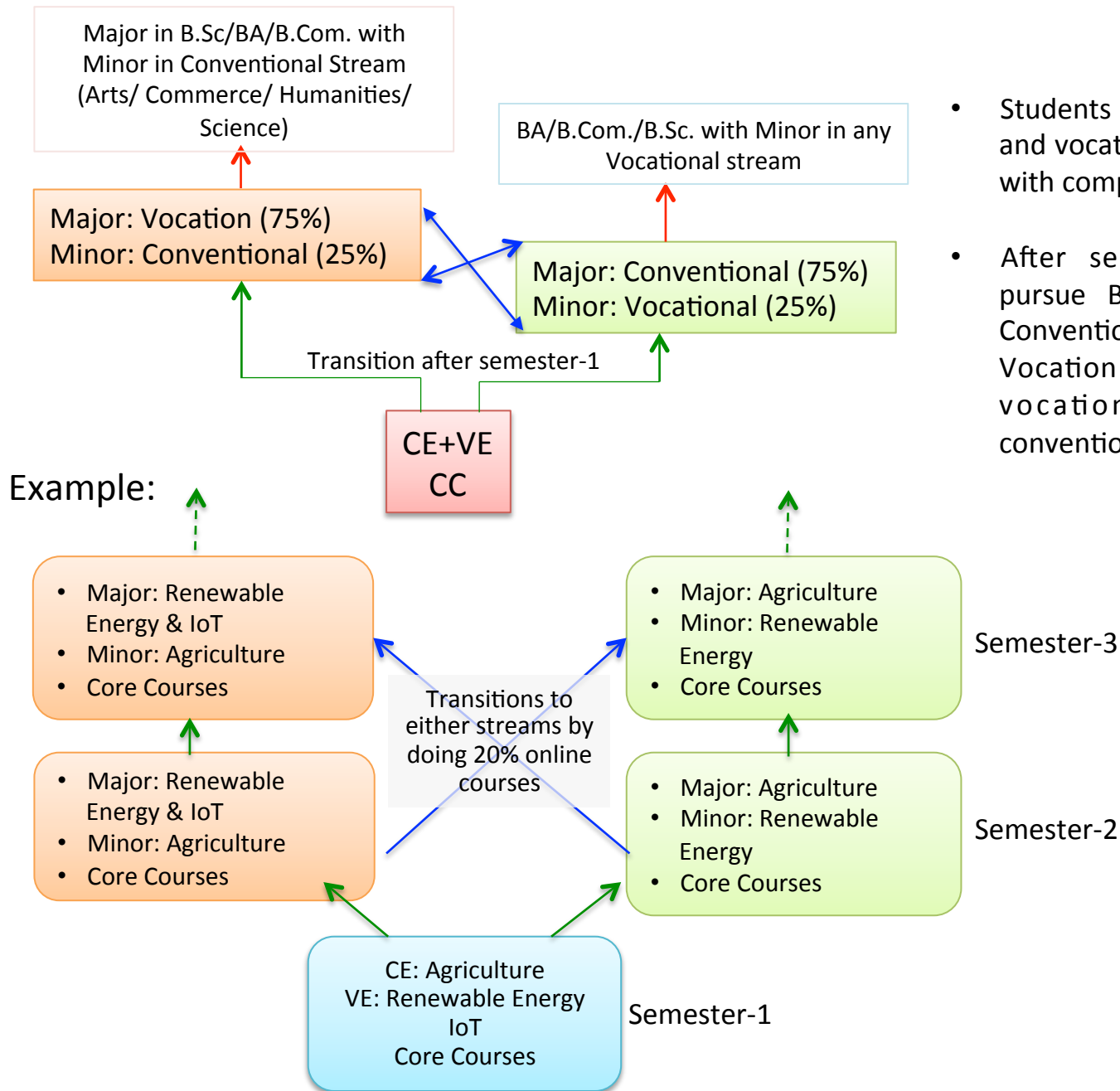
Transition to
conventional
education after
module-2

Transition to
vocational
education after
module-2

Transition to conventional
education after module-1

Transition to vocational
education after module-1

Blended Model (Major and Minor)



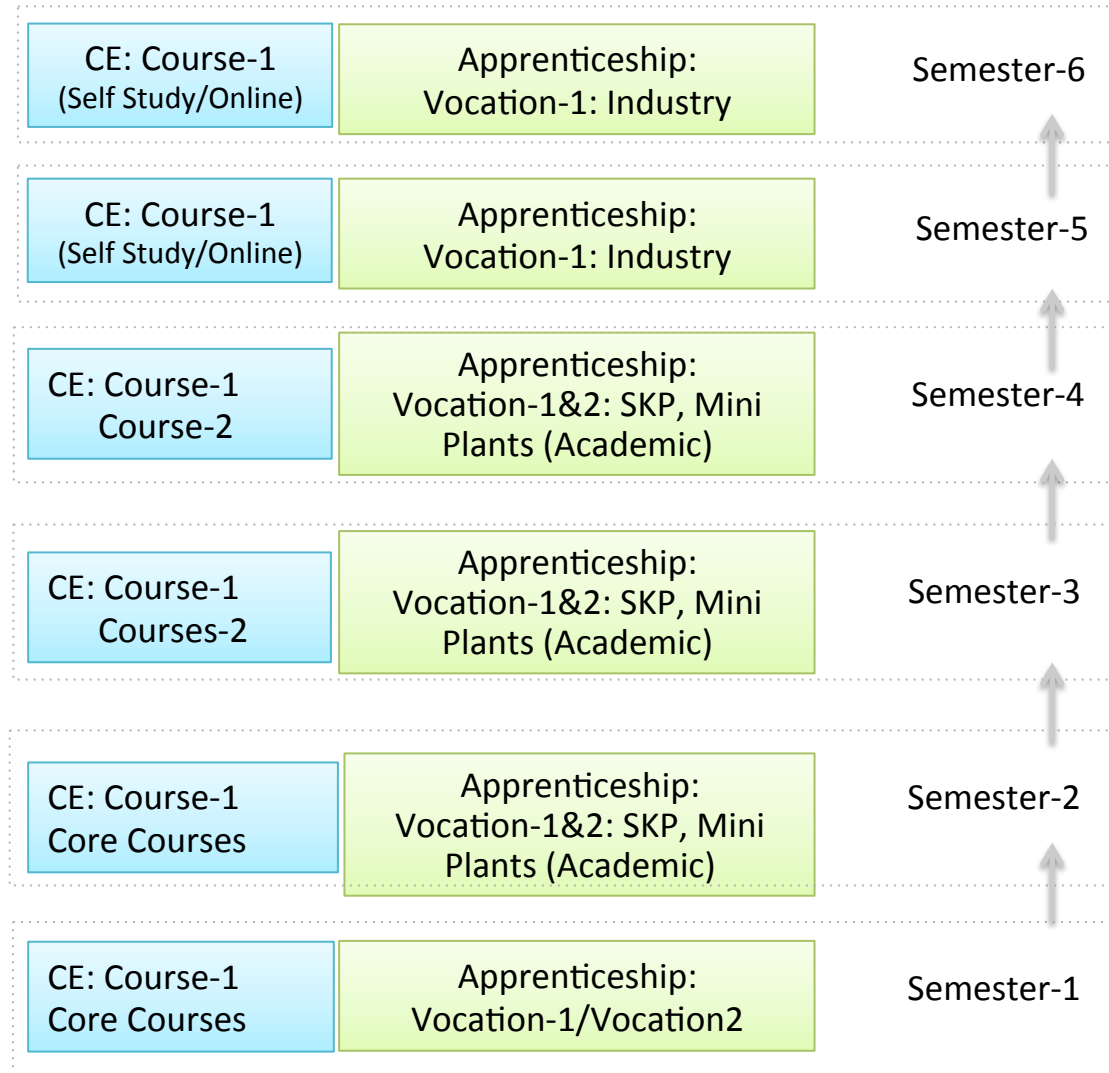
- Students are offered both conventional and vocational courses in semester-1 along with compulsory core courses.
- After semester-1 students can either pursue Bachelor Degree with major in Conventional streams with a minor in any Vocation or Bachelor Degree in any vocation with minor in any one conventional stream.

Partnership (Apprenticeship) Model

Time Sharing (CE:AP=1:1)

- Days
- Weeks
- Modules

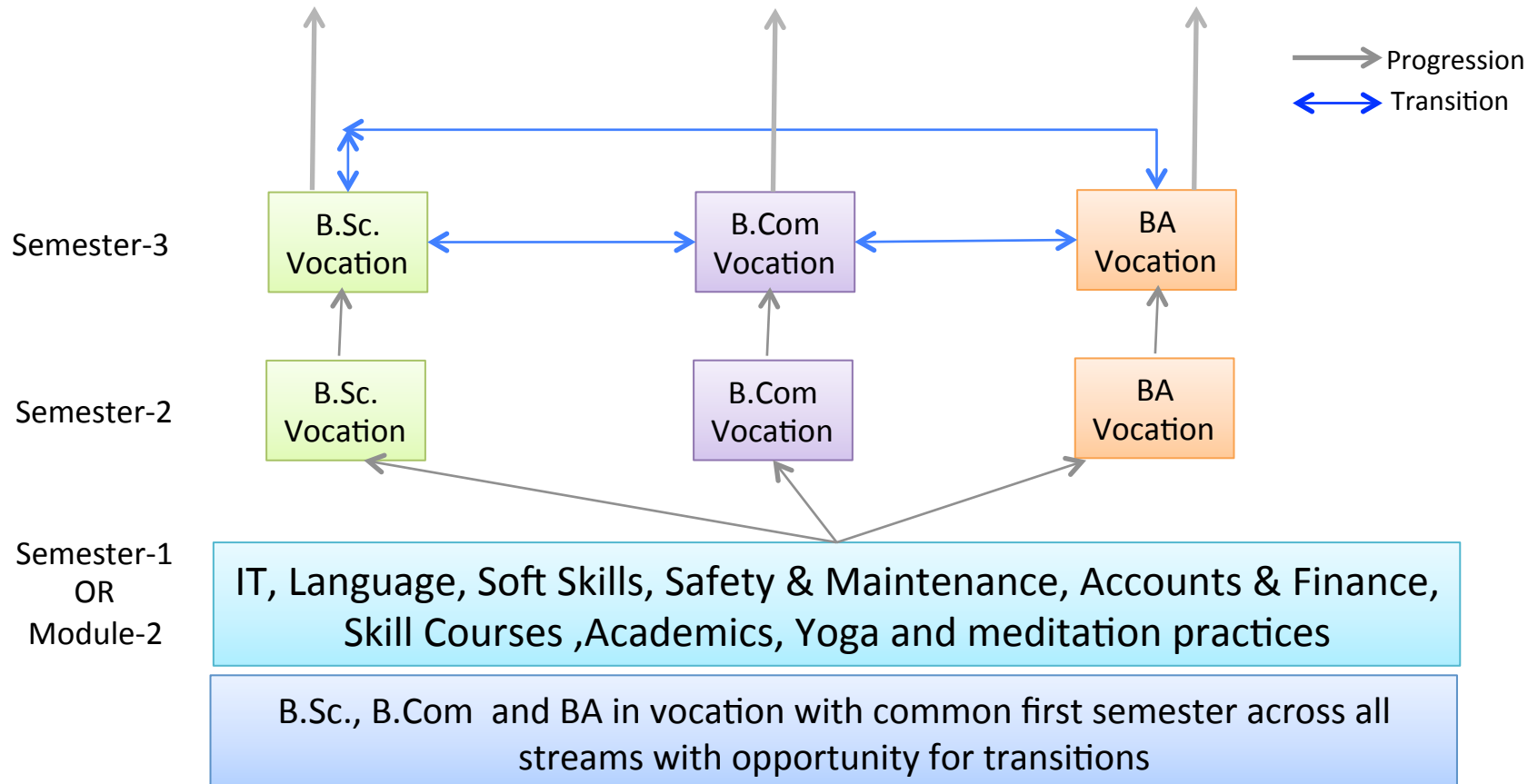
CE: Conventional Education
AP: Apprenticeship



Appended Model

- Degree(Academics/Skills)+Certificate(Academic/Skills)/
Diploma/ Advanced Diploma simultaneously
- Associate Degree (skills) and Degree (Academics)
- Two diplomas simultaneously.
- Diploma and Certificate
- Two certificates

Student Friendly Model



Transitions through 20% learning through online courses and passing the eligibility test

Conclusions

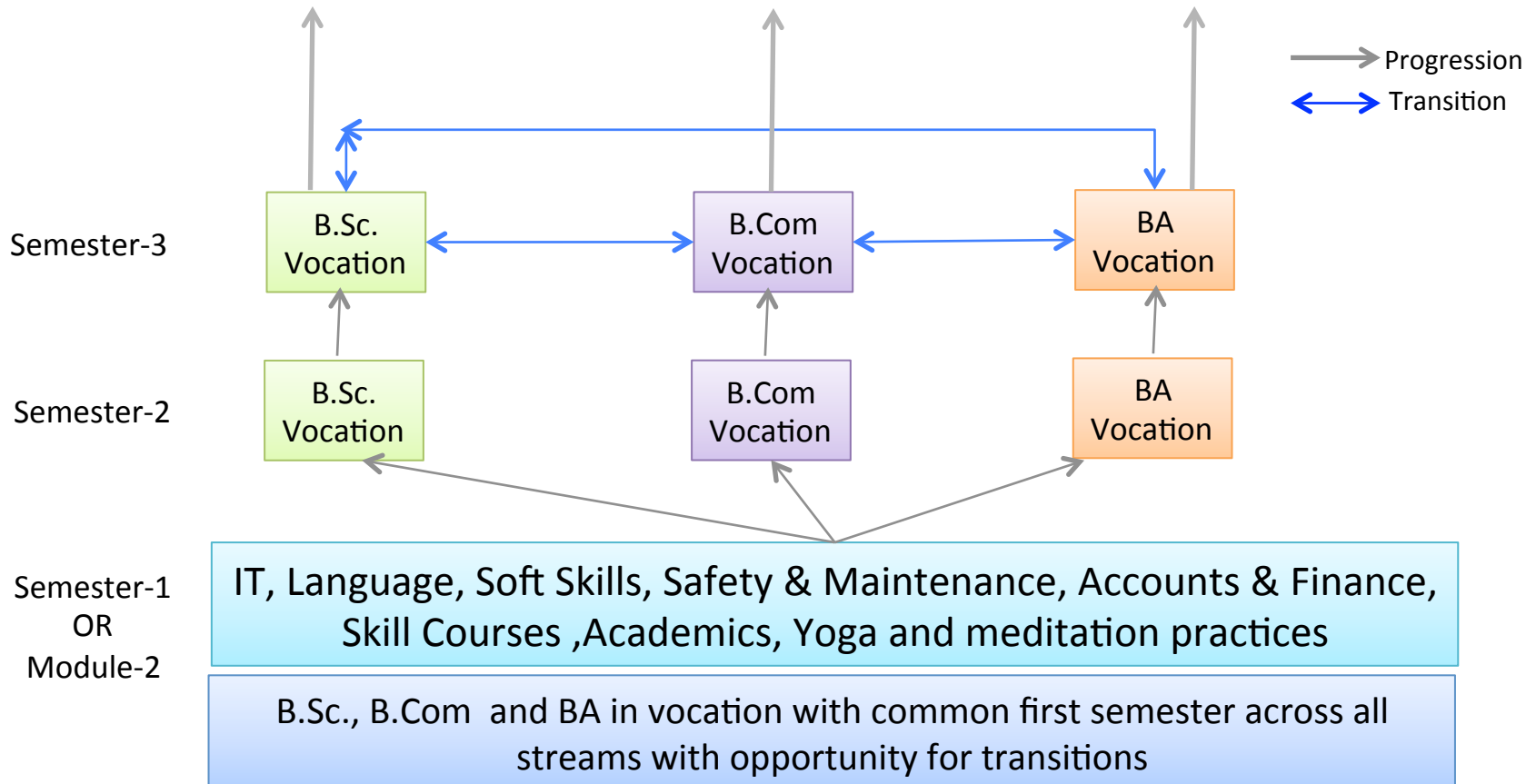
- Development of industry Leaders
- Life long continuous education
- Learn and Earn approach: education at no cost to student
- Academic flexibility to students to move around 360 degree education
- Entrepreneurship should be given preference over job seekers so that nano-enterprises can be established
- Cafeteria approach would encourage more students to opt for skills.
 - Two different specialization of level -6
 - Single specialization level-6 and Level-7
 - Certificates
- Multiple pathways most crucial for students so that they remain open to ideas.
- Deeper confluence of industry and institute with mutual benefits to all stakeholders
- Adjunct Faculty from industry will contribute significantly.
- Mini plant experience in academic setting

Five Models and Their Transitions at a Glance

Embedded Model	Blended Model	Appended Model	MODULE	SEMESTER	Partnership Model	Student Friendly Model
Transition	Transition	No Transition	Module- 1	Semester-1	Intra-Transition	Transition
Transition			Module- 2		Intra-Transition	
	Transition		Module- 3	Semester-2	Intra-Transition	
			Module- 4		Intra-Transition	
			Module- 5	Semester-3	Intra-Transition	
			Module- 6		Intra-Transition	
			Module- 7	Semester-4	Intra-Transition	
Transition			Module- 8		Intra-Transition	
			Module- 9	Semester-5	Intra-Transition	
			Module-10		Intra-Transition	
			Module-11	Semester-6	Intra-Transition	
			Module-12		Intra-Transition	

Example Course Structure for Student Friendly Model

Example Course Structure for Student Friendly Model



Transitions through 20% learning through online courses and passing the eligibility test

Example of Student Friendly Model

Module I (Common for All UG Programmes)

S. No.	Course Title	Credits	Theory/ Practical
1	Language Proficiency	2	Practical
2	Business Models & Start-ups (With emphasis on weaker section & women empowerment)	2	Theory
3	Business Models & Start-ups Field Visit (Skill Units)	1	Practical
4	Financing & Taxation	2	Theory
5	Frugal (Jugaad) Concepts	2	Theory
6	Frugal (Jugaad) Nano Service Unit - Lab (Shall earn revenue to sustain)	1	Practical
7	Portal Development & Management	2	Practical
8	Safety & Security	1	Theory
9	Social Service	1	Practical
10	Games & Sports	1	Practical
		15	Theory – 7 Practical – 8

Example of Student Friendly Model

Module II (Common for All UG Programmes)

S. No.	Course Title	Credits	Theory/ Practical
1	REZ-SEZ-International Market with case studies	1	Theory
2	REZ-SEZ-International Market field visit (Skill Units)	1	Practical
3	Graphics and Autocad	1	Practical
4	Import, Export & Licensing	2	Theory
5	Accounting & Management	2	Theory
6	IoT & Telematics Lab	1	Practical
7	Mobile Applications Lab	1	Practical
8	Documentation , Field Reports & DPRs	1	Theory
9	Photo Journalism & Multimedia Technology	1	Practical
10	Yoga & Meditation Practise	1	Practical
11	Mini Plant Design (Shall earn revenue to sustain)	3	Practical
		15	Theory - 6 Practical - 9

Example of Student Friendly Model

Agriculture Sector

Module III

S. No.	Course Title	Credits	Theory/ Practical
1	Fundamentals of Agriculture	2	Theory
2	Chemistry Skill	1	Practical
3	Livestock Management	2	Theory
4	Biofertilizer Production (Skill unit: Shall earn revenue to sustain)	1	Practical
5	Irrigation Lab	1	Practical
6	Agriculture Machinery Demonstrator AGR/Q1107	6	QPNOS
7	General Knowledge & Current Affairs I	2	Theory (IC)
		15	Theory - 5 Practical - 10

Example of Student Friendly Model

Agriculture Sector

Module IV

S. No.	Course Title	Credits	Theory/ Practical
1	Agriculture Statistics	2	Theory
2	Plant Disease Management Lab on Land	1	Practical
3	Plant Disease Management	2	Theory
4	Farm Power and Machinery management (Skill unit: Shall earn revenue to sustain)	1	Practical
5	Pre-harvest Technology Lab on Land	1	Practical
6	Soil & Water Testing Lab Analyst AGR/Q8103	6	QPNOS
7	Cultural Education	2	Theory (IC)
		15	Theory - 5 Practical - 10

Example of Student Friendly Model

Agriculture Sector

Module V

S. No.	Course Title	Credits	Theory/ Practical
1	Agriculture Meteorology	2	Theory
2	Agriculture Meteorology Lab	1	Practical
3	Plant Disease Management	2	Theory
4	Weed Management (Lab on Land) (Skill unit: Shall earn revenue to sustain)	1	Practical
5	Pest management	1	Practical
6	Electronic Trading Supervisor-Agri Commodity AGR/Q7905	6	QPNOS
7	Environmental Sciences	2	Theory (IC)
		15	Theory - 5 Practical - 10

Example of Student Friendly Model

Agriculture Sector

Module VI

S. No.	Course Title	Credits	Theory/ Practical
1	Elective	2	Theory
2	Elective Lab on Land	1	Practical
3	Agriculture Microbiology	2	Theory
4	Organic Farming (Skill unit: Shall earn revenue to sustain)	1	Practical
5	Crop Management	1	Practical
6	Seed plant production supervisor AGR/Q7105	6	QPNOS
7	Comparative Study of Religion	2	Theory (IC)
		15	Theory - 5 Practical - 10

Electives with compulsory Lab on Land

1. Crop Production Technology
2. Plant Breeding and Seed Technology
3. Vegetables and Fruit Production Technology
4. Floriculture and Landscaping
5. Herbal and Aromatic Plant Technology
6. Plant Propagation and Nursery management
7. Post-Harvest Technology & Value Addition

Example of Student Friendly Model

Agriculture Sector

Module VII

S. No.	Course Title	Credits	Theory/ Practical
1	Elective	2	Theory
2	Elective Lab on Land	1	Practical
3	Agricultural Economics	2	Theory
4	Indigenous Farming (Skill unit: Shall earn revenue to sustain)	1	Practical
5	Molecular Breeding	1	Practical
6	Watershed Engineer AGR/Q6606	6	QPNOS
7	General Knowledge & Current Affairs II	2	Theory (IC)
		15	Theory - 5 Practical - 10

Electives with compulsory Lab on Land

1. Cereal and Millets
2. Plant Breeding I
3. Vegetables Production-I
4. Floriculture
5. Herbal and Aromatic plants
6. Plant propagation-I
7. Post-harvest technology of Cereals, Millets and Pulses

Example of Student Friendly Model

Agriculture Sector

Module VIII

S. No.	Course Title	Credits	Theory/ Practical
1	Elective	2	Theory
2	Elective Lab on Land	1	Practical
3	Intellectual Property Rights & Patenting; Govt Policies - Agriculture	2	Theory
4	Value Addition: Herbal Plant Products (Skill unit: Shall earn revenue to sustain)	1	Practical
5	Garden Development & Maintenance	1	Practical
6	Agriculture Extension Executive AGR/Q7602 or Institution Development Manager AGR/Q7805 or Commodity Procurement Manager AGR/Q7904	6	QPNOS
7	General Knowledge & Current Affairs III	2	Theory (IC)
		15	Theory - 5 Practical - 10

Electives with compulsory Lab on Land

1. Pulse crop production Technology
2. Plant Breeding II
3. Vegetables Production-II
4. Landscape Plants and Flowers: Identification and Uses
5. Medicinal Plant Production
6. Plant Propagation-II
7. Post-harvest technology of Vegetables & Fruits

Example of Student Friendly Model

Agriculture Sector

Module IX

S. No.	Course Title	Credits	Theory/ Practical
1	Elective	2	Theory
2	Elective Lab on Land	1	Practical
3	Crop Physiology	2	Theory
4	Dairy Farming & Dairy (Skill unit: Shall earn revenue to sustain)	1	Practical
5	Precision Agriculture, GPS and GIS; Remote Sensing; Plant Surveillance and Data Mining	1	Practical
6	Commodity Account Manager AGR/Q7906 or Produce Mapping Surveyor AGR/Q7907 or Farm Workshop/Service Manager AGR/Q1110	6	QPNOS
7	Scientific Method, G.K. and Current Affairs IV	2	Theory (IC)
		15	Theory - 5 Practical - 10

Electives with compulsory Lab on Land

1. Oil Seed and Fibers Crop Production
2. Hybrid seed Production
3. Fruit Production and Management
4. Dry Flower Technology
5. Post-harvest Technology in Aromatic Plants
6. Nursery Management
7. Post-harvest technology of Spices and Condiments

Example of Student Friendly Model

Agriculture Sector

Module X

S. No.	Course Title	Credits	Theory/ Practical
1	Crop Biochemistry	2	Theory
2	Crop Biochemistry Lab	1	Practical
3	Agrochemicals	2	Theory
4	Protected Cultivation (Greenhouse technology) (Skill unit: Shall earn revenue to sustain)	1	Practical
5	Agricultural Waste Management	1	Practical
6	Climate Change & Risk Mitigation Manager AGR/ Q6501 or Cold storage Manager AGR/Q7506	6	QPNOS
7	Co-curricular activities	2	Theory (IC)
		15	Theory - 5 Practical - 10

Example of Student Friendly Model

Agriculture Sector

Module XI

S. No.	Course Title	Credits	Theory/ Practical
1	Entrepreneurship Development; Agriculture Finance, Banking and Co-operation	2	Theory
2	Entrepreneurship Development; Agriculture Finance, Banking and Co-operation – Case Study Development	1	Practical
3	Agricultural extension	2	Theory
4	Skill unit of choice: Shall earn revenue to sustain)	1	Practical
5	Land Management	1	Practical
6	Agri Research Analyst AGR/Q7901 or Risk Analyst Manager-Agri Commodity AGR/Q7903	6	QPNOS
7	Agri-climatic interaction	2	Theory
		15	Theory - 5 Practical - 10

Example of Student Friendly Model

Agriculture Sector

Module XII

S. No.	Course Title	Credits	Theory/ Practical
1	Advanced Agri-Technologies	2	Theory
2	Advanced Agri-Technologies Lab	1	Practical
3	Internship at Skill unit of choice: Shall earn revenue to sustain	6	Practical
4	Design of Mini Skill unit	6	Practical
		15	Theory - 2 Practical - 13

Example of Student Friendly Model

Module I (Common for All UG Programmes)

S. No.	Course Title	Credits	Theory/ Practical
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Example of Student Friendly Model

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11	Mini Plant Design (Shall earn revenue to sustain)	3	Practical
		15	Theory - 6 Practical - 9

Example of Student Friendly Model

Agriculture Sector

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S. No.	Course Title	Credits	Theory/ Practical
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2	Chemistry Skill	1	Practical
3	Livestock Management	2	Theory
4	Biofertilizer Production (Skill unit: Shall earn revenue to sustain)	1	Practical
5	Irrigation Lab	1	Practical
6	Agriculture Machinery Demonstrator AGR/Q1107	6	QPNOS
7	General Knowledge & Current Affairs I	2	Theory (IC)
		15	Theory - 5 Practical - 10

Example of Student Friendly Model

Agriculture Sector

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Example of Student Friendly Model

Agriculture Sector

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4	Weed Management (Lab on Land) (Skill unit: Shall earn revenue to sustain)	1	Practical
5	Pest management	1	Practical
6	Electronic Trading Supervisor-Agri Commodity AGR/Q7905	6	QPNOS
7	Environmental Sciences	2	Theory (IC)
		15	Theory - 5 Practical - 10

Example of Student Friendly Model

Agriculture Sector

Module VI

S. No.	Course Title	Credits	Theory/ Practical
1	Elective	2	Theory
2	Elective Lab on Land	1	Practical
3	Agriculture Microbiology	2	Theory
4	Organic Farming (Skill unit: Shall earn revenue to sustain)	1	Practical
5	Crop Management	1	Practical
6	Seed plant production supervisor AGR/Q7105	6	QPNOS
7	Comparative Study of Religion	2	Theory (IC)
		15	Theory - 5 Practical - 10

Electives with compulsory Lab on Land

1. Crop Production Technology
2. Plant Breeding and Seed Technology
3. Vegetables and Fruit Production Technology
4. Floriculture and Landscaping
5. Herbal and Aromatic Plant Technology
6. Plant Propagation and Nursery management
7. Post-Harvest Technology & Value Addition

Example of Student Friendly Model

Agriculture Sector

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Example of Student Friendly Model

Agriculture Sector

Module VII

S. No.	Course Title	Credits	Theory/ Practical
1	Elective	2	Theory
2	Elective Lab on Land	1	Practical
3	Agricultural Economics	2	Theory
4	Indigenous Farming (Skill unit: Shall earn revenue to sustain)	1	Practical
5	Molecular Breeding	1	Practical
6	Watershed Engineer AGR/Q6606	6	QPNOS
7	General Knowledge & Current Affairs II	2	Theory (IC)
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Electives with compulsory Lab on Land

1. Cereal and Millets
2. Plant Breeding I
3. Vegetables Production-I
4. Floriculture
5. Herbal and Aromatic plants
6. Plant propagation-I
7. Post-harvest technology of Cereals, Millets and Pulses

Example of Student Friendly Model

Agriculture Sector

Module VIII

S. No.	Course Title	Credits	Theory/ Practical
1	Elective	2	Theory
2	Elective Lab on Land	1	Practical
3	Intellectual Property Rights & Patenting; Govt Policies - Agriculture	2	Theory
4	Value Addition: Herbal Plant Products (Skill unit: Shall earn revenue to sustain)	1	Practical
5	Garden Development & Maintenance	1	Practical
6	Agriculture Extension Executive AGR/Q7602 or Institution Development Manager AGR/Q7805 or Commodity Procurement Manager AGR/Q7904	6	QPNOS
7	General Knowledge & Current Affairs III	2	Theory (IC)
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Electives with compulsory Lab on Land

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4	Dairy Farming & Dairy (Skill unit: Shall earn revenue to sustain)	1	Practical
5	Precision Agriculture, GPS and GIS; Remote Sensing; Plant Surveillance and Data Mining	1	Practical
6	Commodity Account Manager AGR/Q7906 or Produce Mapping Surveyor AGR/Q7907 or Farm Workshop/Service Manager AGR/Q1110	6	QPNOS
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Electives with compulsory Lab on Land

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Example of Student Friendly Model

Agriculture Sector

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2	Crop Biochemistry Lab	1	Practical
3	Agrochemicals	2	Theory
4	Protected Cultivation (Greenhouse technology) (Skill unit: Shall earn revenue to sustain)	1	Practical
5	Agricultural Waste Management	1	Practical
6	Climate Change & Risk Mitigation Manager AGR/ Q6501 or Cold storage Manager AGR/Q7506	6	QPNOS
7	Co-curricular activities	2	Theory (IC)
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Example of Student Friendly Model

Agriculture Sector

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