

**Guidelines for Credit Based Courses  
and Opportunities for Internship with  
local Industry, Business, Artists,  
Crafts Persons etc.**

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# The Crisis

- Indian Industry has lately been very concerned with the lack of requisite technical and soft skills in students entering Industry.
- A majority of graduates across India are unemployable for any job.
- The time and cost of training students after education is becoming a major challenge for the industry.
- Further, the industry is changing rapidly and so are its requirements.
- This has not resulted in an equally fast changing education system aligned to the needs of industry.
- The education system provides products, without necessarily linking with industry requirements.
- The optimum solution to such a problem lies in bringing industry and academia together for developing the products.

# Computation of GPA

- All GPA computations will be up to 3 decimal places.
- This will ensure
  - Greater precision in assigning credit to student's academic achievements
  - Greater precision in discerning differences in achievement
  - More precision in conversions from one format to another

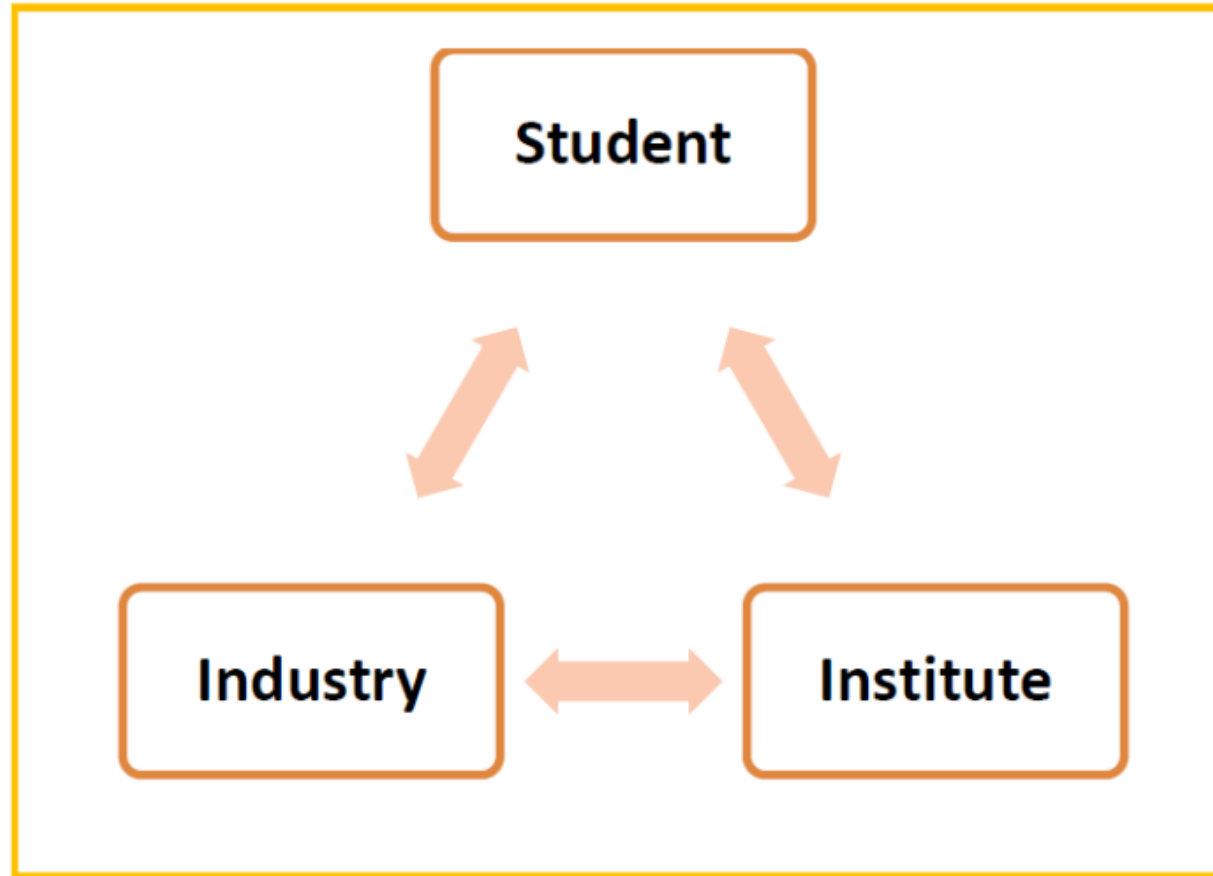
**Co-operative Education: Addressing the Needs of the Student, Industry, and Institute through Partnerships**

## **SECTION I**

# Co-operative Education

- World Association of Cooperative Education (WACE) defines it as a program which alternates periods of academic study with periods of work experience in appropriate fields of business, industry, government, social services and the professions in accordance with defined criteria.
- Co-operative education is a structured method of combining classroom-based education with practical work experience in the industry.
- It entails cooperation between Institute and Industry to produce trained professionals.

# Benefit to All Stakeholders



# Benefits for Student

- Students are able to work on live projects with intensive mentoring.
- The Co-op program is designed to not only increase likelihood of employability, but also to provide an opportunity to students to get to know the prospective employer better.
- This program is intended to follow ‘earn-while-you-learn concept.’ It is expected that the student would be provided a reasonable stipend during the internship.
- It increases the possibility of securing a pre-placement offer.



# Benefits for Industry

- The industry gets to know much more about the abilities and personality of the student than it would have been possible through interview and written tests.
- It significantly reduces training cost and time if the student joins the partner organization.
- The organization also gains through engagement with the Institute in developing a product that would be ‘industry ready’.

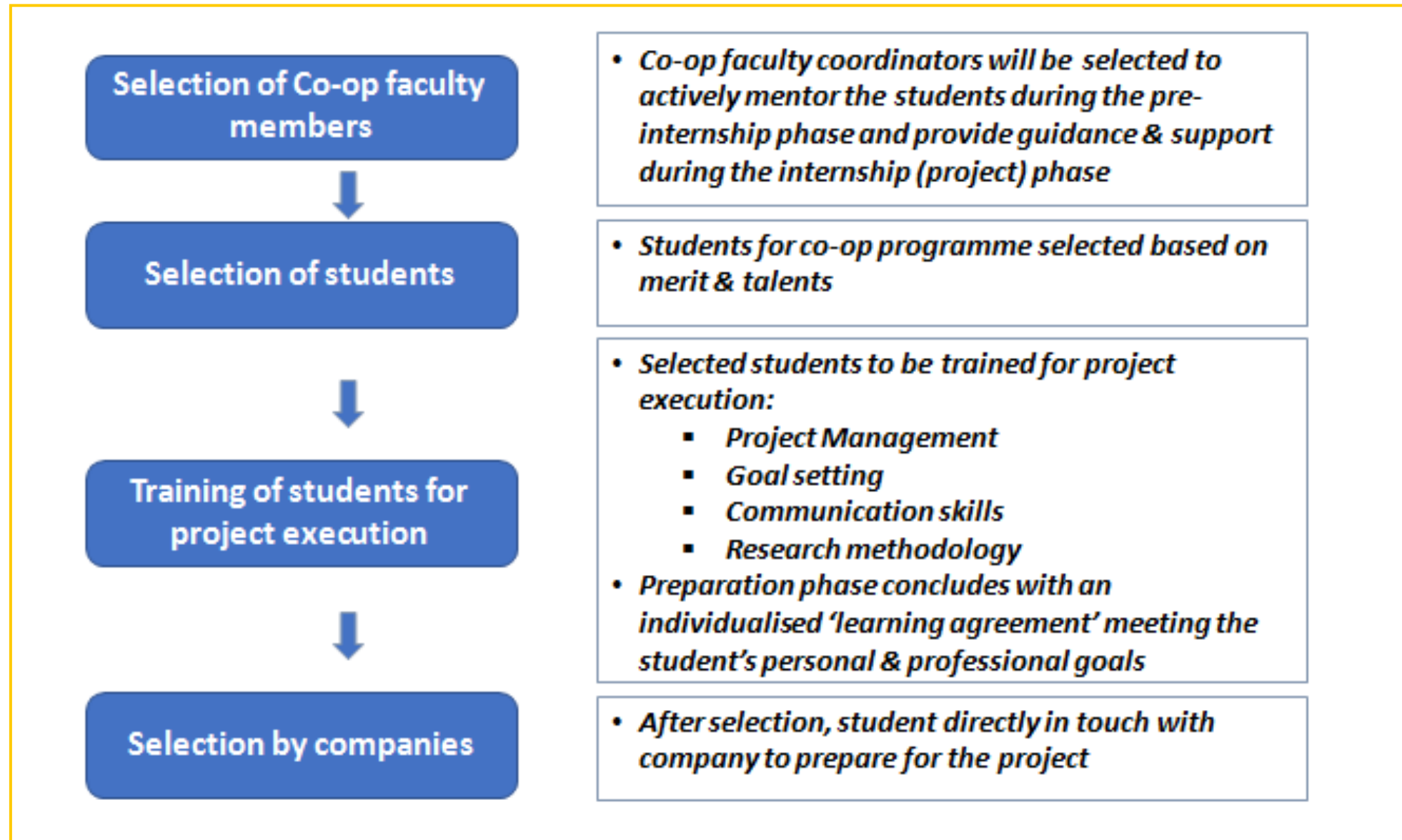
# Benefits for Institute

- Through the unique connection between industry, institute and students, the institute will, in the medium to long-term, be able to upgrade its content, teaching methodologies and research capabilities.
- Research shows that assessment of student work performance as pursued by co-op employers, can be used for continuous improvement of curricula, which in turn aids the input quality of students to industry.

# The Process

- The co-op model process consists of three main steps:
  - Pre-internship
  - Internship
  - Post-internship

# The Pre-Internship Phase



# The Internship Phase

Institute appoints a mentor (from the same city as far as possible), who can be approached by the student for guidance

Industry appoints a Project Coordinator who can be the central point of contact to liaise with student , institute & mentor

A weekly report of activities would be sent by student to Co-op faculty coordinator

A monthly report on work done would be submitted by student to Project Coordinator

Co-op faculty coordinator visits the company during the first three months to get direct feedback on student

Project Coordinator evaluates student on set parameters & sends confidential report to Co-op faculty coordinator

Company HR will indicate possibility of Pre-placement offer based on performance

# The Post-Internship Phase

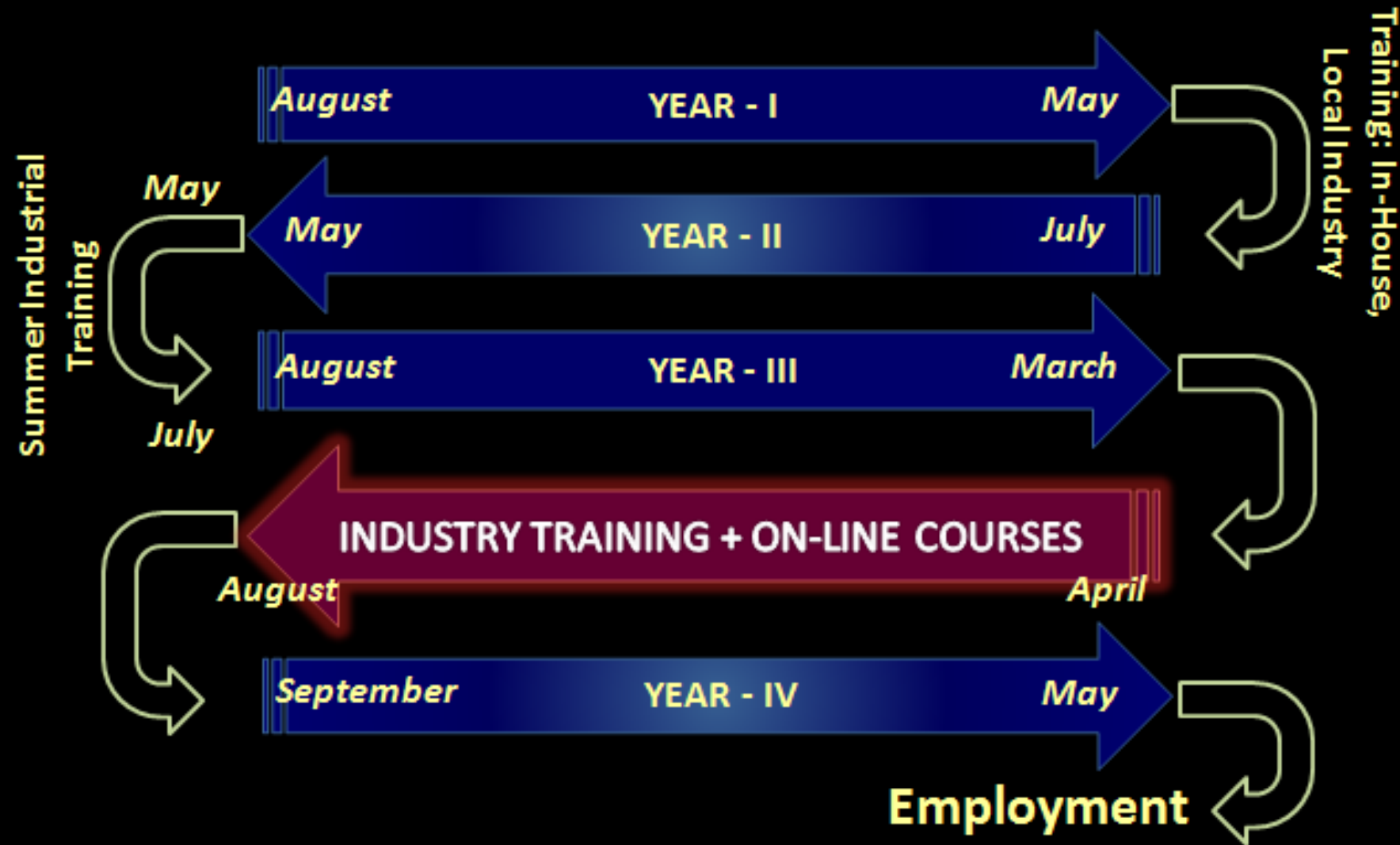
Student will submit report immediately on joining with comments from Project Coordinator

Student will make a presentation to reflect upon what they accomplished, how these connect to their studies, and how the activities or experience has added to their overall growth

Learnings will be shared with next batch

If a student receives a pre-placement offer (PPO), the modalities to attach with a company will start

# Undergraduate Cooperative Program Structure

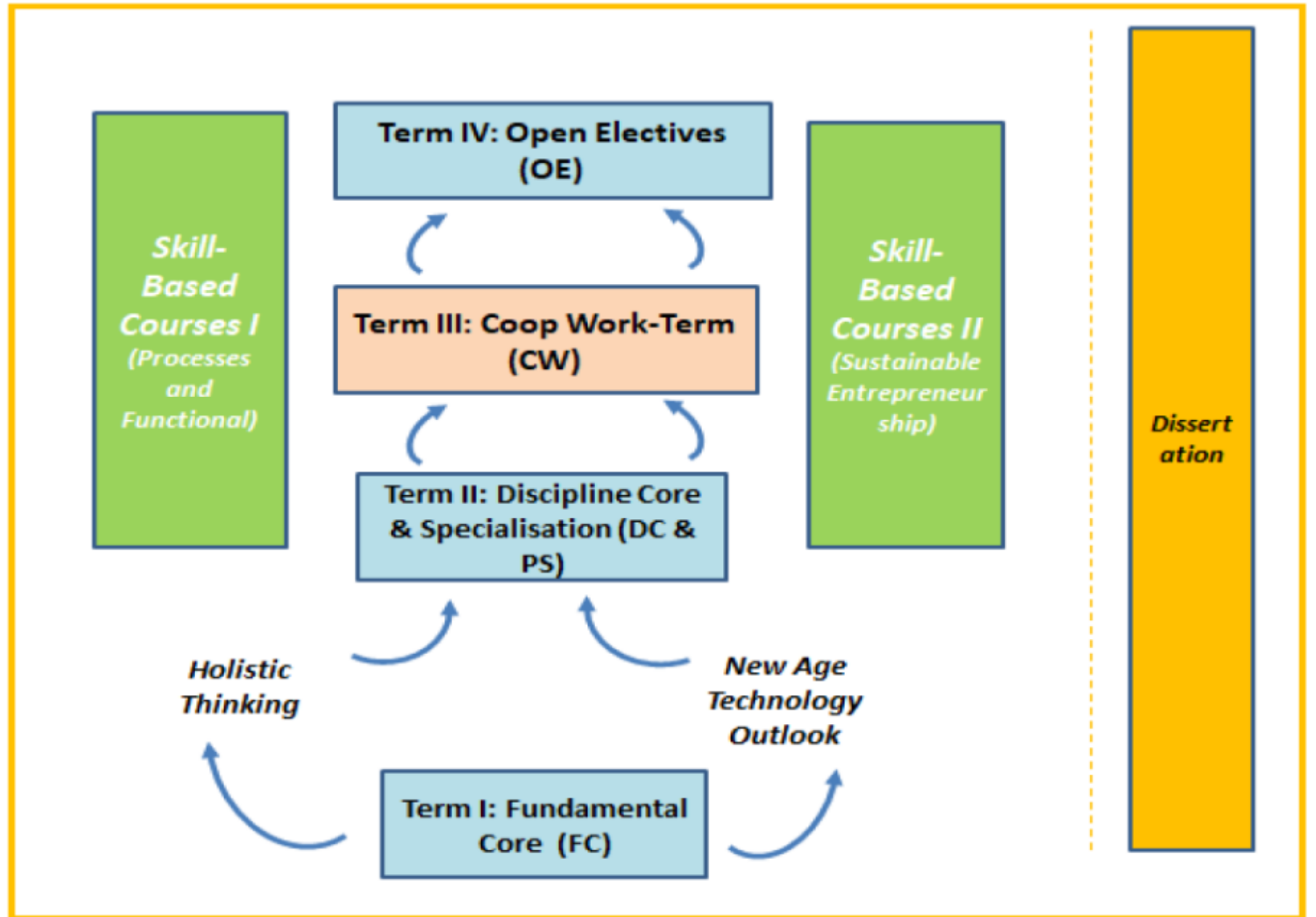


# Credits

<b>S. No.</b>	<b>Nature of the Training</b>	<b>After Year</b>	<b>Credits</b>
<b>1</b>	Observational Training	I	4-8
<b>2</b>	Industrial Training	II	8-16
<b>3</b>	Coop Internship	III	24-36
		<b><i>TOTAL</i></b>	<b><i>36-50</i></b>



# Post Graduate Degree Coop Model



# Credits

<b>S. No.</b>	<b>Nature of the Training</b>	<b>Duration</b>	<b>Credits</b>
<b>1</b>	Dissertation	Throughout the programme	24
<b>2</b>	Coop Internship	After 1 Year	16
		<b><i>TOTAL</i></b>	<b><i>40</i></b>

# **A General Credit Framework for a Four-Year Undergraduate Degree Programme with Embedded/ Appended Apprenticeship/ Internship**

## **SECTION II**

# The Framework

- The proposed framework outlines a strategy for ‘complete’ education that focusses on
  - Foundation courses to impart subject knowledge
  - Field experience in farms, factories, and commercial establishments to bridge the academia and industry divide. Providing opportunities for students to develop necessary industry-oriented skills through appropriate practical training modes.
  - The journey from an idea in the mind to a finished product by hand
  - Co-curricular activities inculcate moral values
  - Agricultural operations and village development programmes to instill the values of social service;
  - Democratic processes in student activities to foster an appreciation of democracy and participation in decision-making processes

# Types of Courses

## Core Courses

- Discipline Specific (DSC)
- Holistic Value Based (HVBC)

## Electives

- Discipline Specific (DSE)
- Generic (GE)

## Ability Enhancement

- Ability Enhancement Compulsory (AECC)
- Skill Enhancement (SEC)

# Types of Courses

## Practical

- Internship
- Apprenticeship
- Project
- Tutorial
- Dissertation

## Non-Credit

- Courses with a Satisfactory/Unsatisfactory Grading

## Credit Distribution

Level	DSC	HVBC	GE	DSE	AECC	SEC	Practical	TOTAL
CERTIFICATE	24	6	4	4 credits	4	4	10	56
				(Major or Minor Courses)				
DIPLOMA	24	4	4	4 credits	4	4	10	54
				(Major or Minor courses)				
DEGREE	32	-			8	4	10	54
RESEARCH	8	---	8 credits can be earned by any of the modalities				14	30
TOTAL	88	10	8+8*	8+8*	16+8*	12+8*	44	194

**FYUP with  
Appended  
Apprenticeship/  
Internship**

**Year I: 42 (Core + Elective + Ability Enhancement)  
+ 4 Credits (Skill Enhancement)**

**10 Credit  
Summer  
Internship**

**Year II: 40 (Core + Elective + Ability Enhancement)  
+ 4 Credits (Skill Enhancement)**

**10 Credit  
Summer  
Internship**

**Exit with  
Certificate**

**Year III: 40 (Core + Elective + Ability Enhancement)  
+ 4 Credits (Skill Enhancement)**

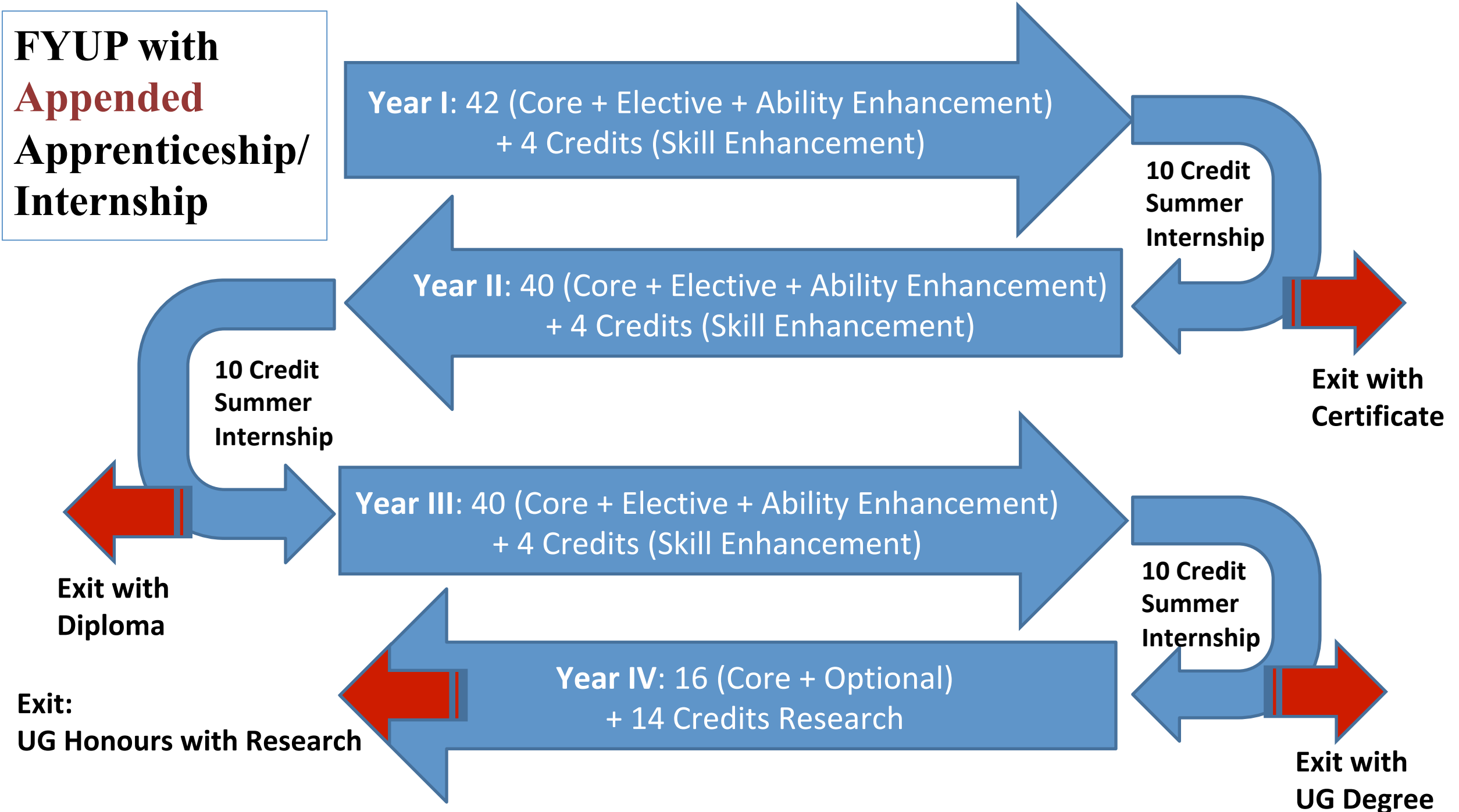
**10 Credit  
Summer  
Internship**

**Exit with  
Diploma**

**Year IV: 16 (Core + Optional)  
+ 14 Credits Research**

**Exit:  
UG Honours with Research**

**Exit with  
UG Degree**





**FYUP with  
Embedded  
Apprenticeship/  
Internship**

**Year I: 42 (Core + Elective + Ability Enhancement)  
+ 4 (Skill Enhancement) + 10 (Internship)**

**Exit with  
Certificate**

**Year II: 40 (Core + Elective + Ability Enhancement)  
+ 4 Credits (Skill Enhancement) + 10 (Internship)**

**Exit with  
Diploma**

**Year III: 40 (Core + Elective + Ability Enhancement)  
+ 4 Credits (Skill Enhancement) + 10 (Internship)**

**Exit with  
UG Degree**

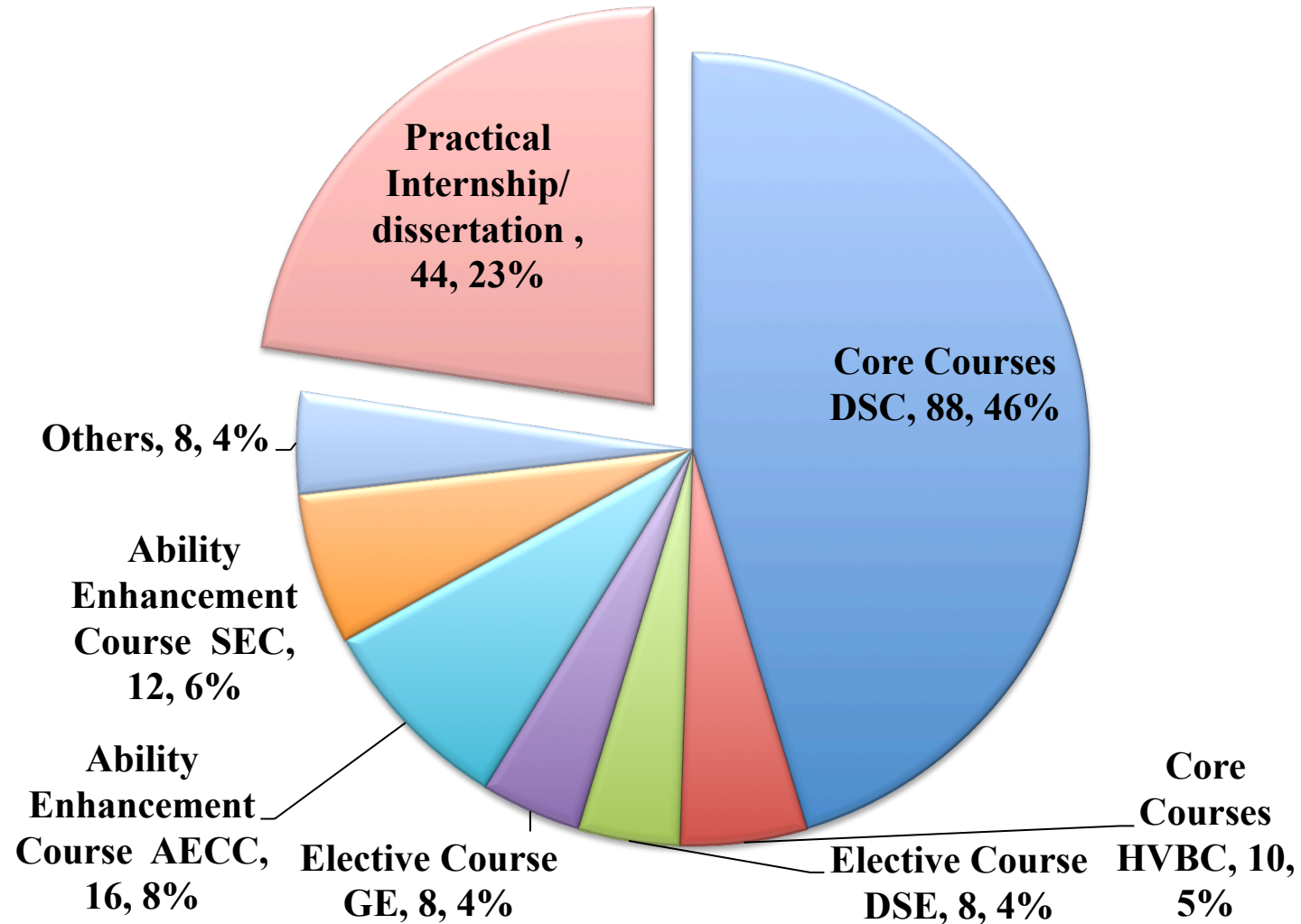
**Exit:  
UG Honours with Research**

**Year IV: 16 (Core + Optional)  
+ 14 Credits Research**

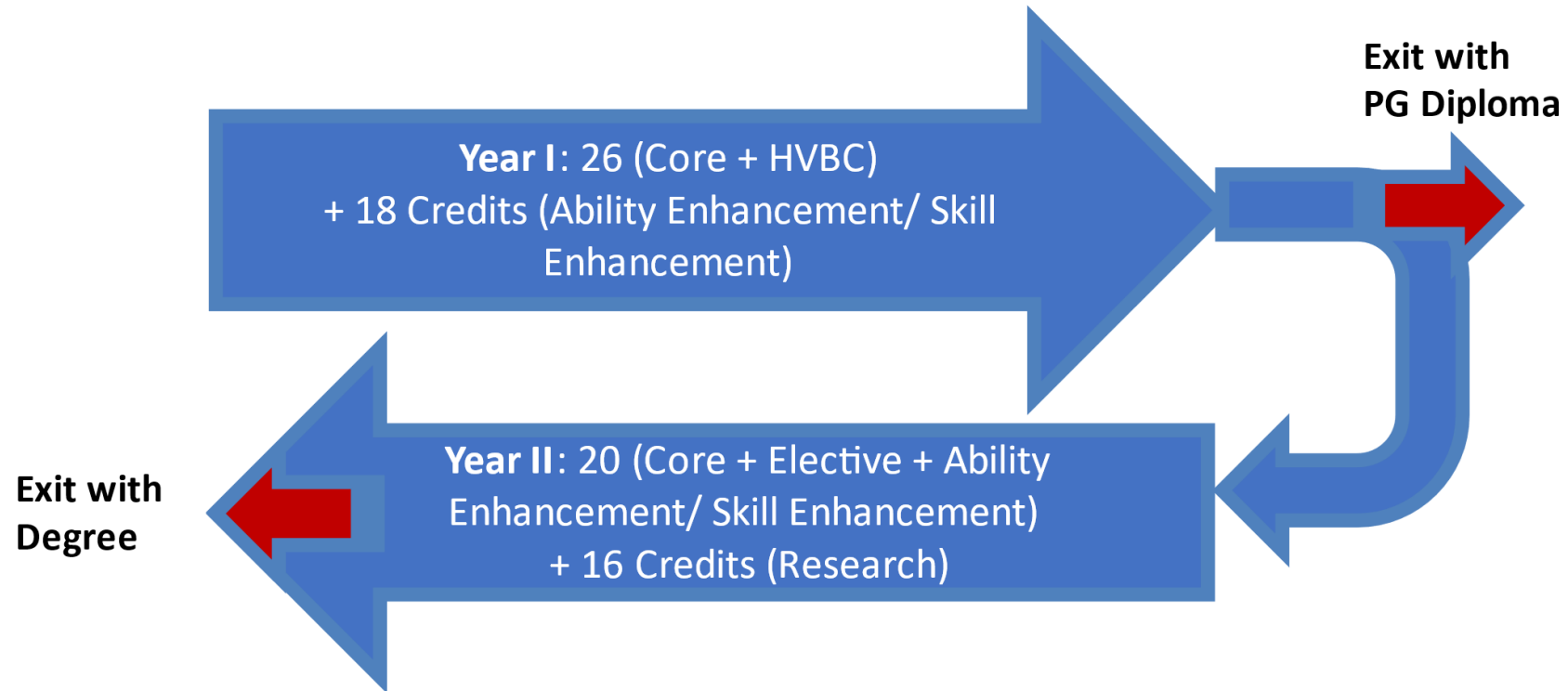
Sem.	Core Course	Elective Course		Ability Enhancement Course (AEC)		Practical	Total Credit
		Discipline Specific Elective (DSE)	Generic Elective (GE)	Ability Enhancement Compulsory Courses (AECC)	Skill Enhancement Courses (SEC)		
I	Departmental Specific Core Course – <b>12 Credits</b>	Interdisciplinary faculty ancillary Course <b>4 Credits</b>		Seminar and Group Discussion <b>2 Credits</b>	Work Experience/ Practical/Lab <b>2 Credits</b>		<b>23</b>
	Holistic Value-based Core Course- <b>3 Credits</b>						
II	Departmental Specific Core Course- <b>12 Credits</b>		Interdisciplinary non faculty ancillary Course <b>4 Credits</b>	Seminar and Group Discussion <b>2 Credits</b>	Work Experience/ Practical/Theory/Lab <b>2 Credits</b> + Summer internship of <b>10 credits</b> <b>OR</b> Summer Internship of Credit <b>12 (to exit)</b>		<b>33</b>
	Holistic Value-based Core Course- <b>3 Credits</b>						
<b>AWARD OF CERTIFICATE (after 1 year: 56 Credits)</b>							
III	Departmental Specific Core Course- <b>12 Credits</b>	Interdisciplinary faculty ancillary Course <b>4 Credits</b>		Seminar and Group Discussion <b>2 Credits</b>	Work Experience/ Practical/ Lab <b>2 Credits</b>		<b>22</b>
	Holistic Value-based Core Course- <b>2 Credits</b>						
IV	Departmental Specific Core Course- <b>12 Credits</b>		Interdisciplinary non faculty ancillary Course <b>4 Credits</b>	Seminar and Group Discussion <b>2 Credits</b>	Work Experience/ Practical/Theory/Lab <b>2 Credits</b> + Summer internship of <b>10 credits</b> <b>OR</b> Summer Internship of Credit <b>12 (to exit)</b>		<b>32</b>
	Holistic Value-based Core Course- <b>2 Credits</b>						
<b>AWARD OF DIPLOMA (after 2 Years: 110 Credits)</b>							
V	Departmental Specific Core Course – <b>16 Credits</b>			Seminar and Group Discussion <b>4 Credits</b>	Work Experience/ Practical/ Lab <b>2 Credits</b>		<b>22</b>
VI	Departmental Specific Core Course- <b>16 Credits</b>			Seminar and Group Discussion <b>4 Credits</b>	Work Experience/ Practical/Theory/Lab <b>2 Credits</b> + Summer internship of <b>10 credits</b> <b>OR</b> Summer Internship of Credit <b>12 (to exit)</b>		<b>32</b>
<b>AWARD OF Bachelors (3 Years) (after 3 Years: 164 Credits)</b>							
VII	Departmental Specific Core Course <b>08 Credits</b>	<b>08 Credits*</b> can be earned by any of the modalities				Proposal of research - <b>04 Credits</b>	<b>20</b>
VIII						Dissertation – <b>10 Credits</b>	<b>10</b>
	<b>88+10= 98</b>	<b>08+08*</b>	<b>8+8*</b>	<b>16+08*</b>	<b>12+08*</b>	<b>44</b>	<b>194</b>
<b>AWARD OF Bachelors (Hons with research) (4 Years) (after 4 Years: 194 Credits)</b>							

\*08 credits can be obtained in any of the 4 categories as a whole or in parts.

# Percentage-wise Distribution



# Postgraduate Model

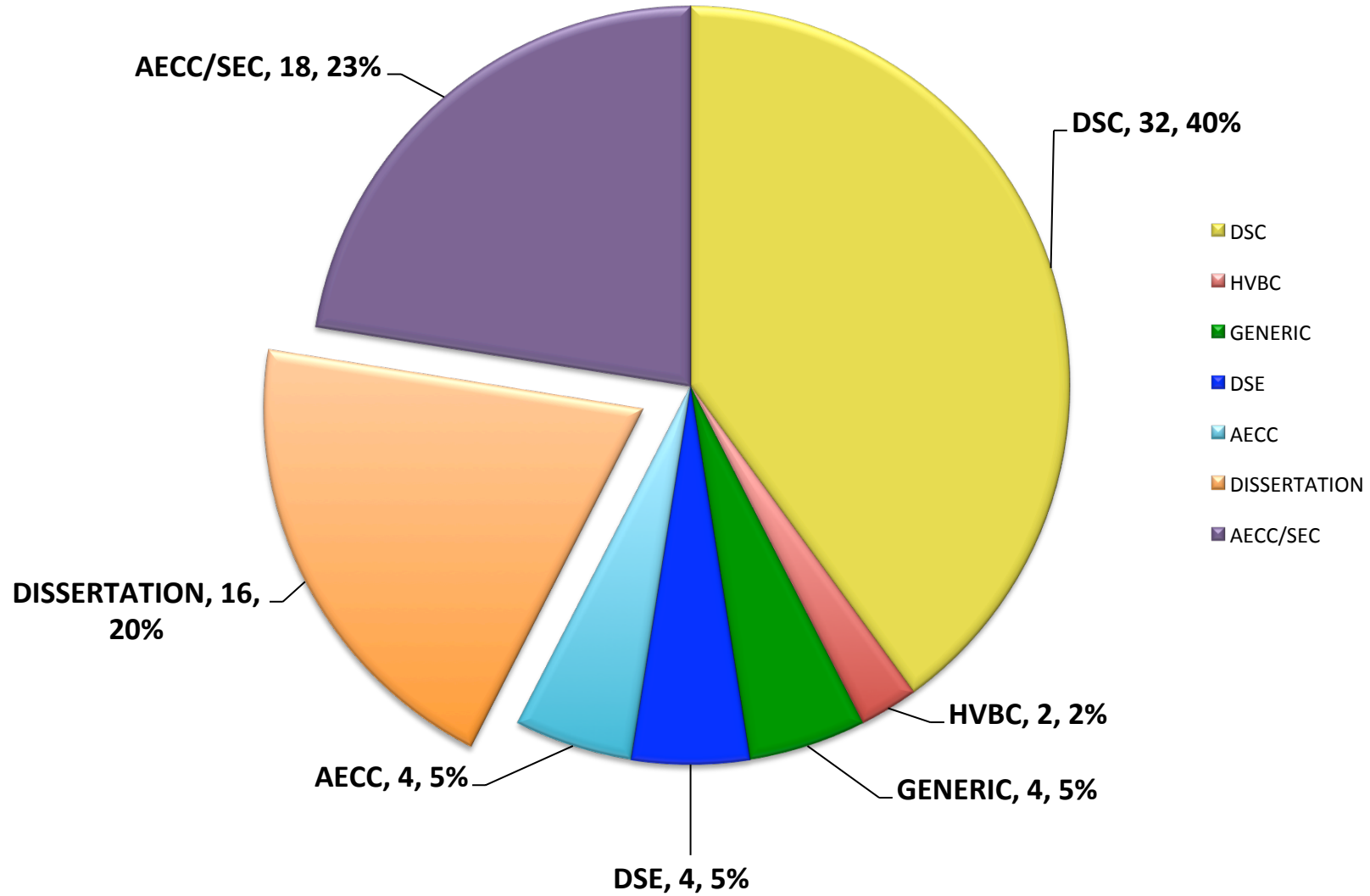


# Credit Distribution

LEVEL	DSC	HVBC	GENERIC	DSE	AECC	SEC	DISSERTATION	TOTAL
DIPLOMA	24	2			18*			44
DEGREE	8		4	4	4		16	36
TOTAL	32	2	4	4	4+18*	18*	16	80

\* Can get credits in AECC or SEC or both

# PERCENTAGE CREDIT DISTRIBUTION AT PG LEVEL



# **Programme for Working Students**

## **SECTION III**



# Program for Working Students

- A scheme to provide opportunities for students to decide the pace of achieving academic milestones based on financial conditions and academic interest.
- Prepare Students with or without ‘apriori experience’ for entry-level career in semi-skilled/ unskilled occupations with progression to highly-skilled and specialist professions through an operational arrangement between Institute and the Industry.
- Creating pathways for students to move from industry to institute in a graded fashion to a Four Year Undergraduate Program and beyond as per NEP 2020 requirements.
- Individuals who are interested in pursuing highly skilled careers may be encouraged to start first by earning an associate degree at an entry level and as they earn their qualifications, they can progress to higher academic qualifications and achievements.



# Proposed Credit Structure

- Students with prior experience may be exempted from crediting skill-based courses and internship programmes
- Detailed credit distribution is shown in the next slide
  - The 35 percent (68 credits- HVBC, Ability enhancement, and Skill-based courses) that he/she must complete in offline mode are indicated in yellow (blended as discussed).
  - His/her industrial expertise is worth about 15 percent (30 credits).
  - By enrolling in online courses, one can earn 40% of credits (78 credits).
  - He may be granted 10% (18 credits) freedom to pick courses based on his interests, which he would have to take in offline mode.

Sem	Core Course	Elective Course		Ability Enhancement Course (AEC)		Practical	Total Credits	
	a) Departmental Specific Core Course (DSC) b) Holistic Value-based Core Course (HVBC)	Discipline Specific Elective (DSE)	Generic Elective (GE)	Ability Enhancement Compulsory Courses AECC)	Skill Enhancement Courses (SEC)	Dissertations/ Project		
I	Departmental Specific Core Course <b>12 Credits</b>	Interdisciplinary faculty ancillary Course <b>4 Credits</b>		Seminar and Group Discussion <b>2 Credits</b>	Work Experience/ Practical/Theory/Lab <b>2 Credits</b>		<b>23</b>	
	Holistic Value-based Core Course <b>3 Credits</b>							
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	Holistic Value-based Core Course <b>3 Credits</b>							
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III	Departmental Specific Core Course <b>12 Credits</b>	Interdisciplinary faculty ancillary Course <b>4 Credits</b>		Seminar and Group Discussion <b>2 Credits</b>	Work Experience/ Practical/Theory/Lab <b>2 Credits</b>		<b>22</b>	
	Holistic Value-based Core Course <b>2 Credits</b>							
IV	Departmental Specific Core Course <b>12 Credits</b>		Interdisciplinary non faculty ancillary Course <b>4 Credits</b>	Seminar and Group Discussion <b>2 Credits</b>	Work Experience/ Practical/Theory/Lab <b>2 Credits</b>		<b>32</b>	
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<b>AWARD OF Bachelors (3 Years) (after 3 Years: 164 Credits)</b>								
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VIII						Dissertation - <b>10 Credits</b>		<b>10</b>
Total	<b>88+10= 98</b>	<b>08+08*</b>	<b>8+8*</b>	<b>16+08*</b>	<b>12+08*</b>	<b>50</b>	<b>194</b>	
<b>AWARD OF Bachelors (Hons with research) (4 Years) (after 4 Years: 194 Credits)</b>								

\*08 credits can be obtained in any of the 4 categories as a whole or part.

# **Vocationalization of Conventional Education Curriculum: A Proposal**

## **SECTION IV**

# 1. Introduction

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- It is proposed that the **curricula** of the conventional education may be **vocationalized in an evolutionary manner**.
- This will help students to take advantage of the skill-based education, which is gaining increased relevance in current times.

## 2. Motivation

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- Various integration models of conventional with vocational education.
- Students to gain increased flexibility and job / entrepreneurship opportunities as they design their own programmes.
- Compatible with NSQF Level 6, totaling 500 hours in 3 years.

### 3. Possible Models: Different Variants

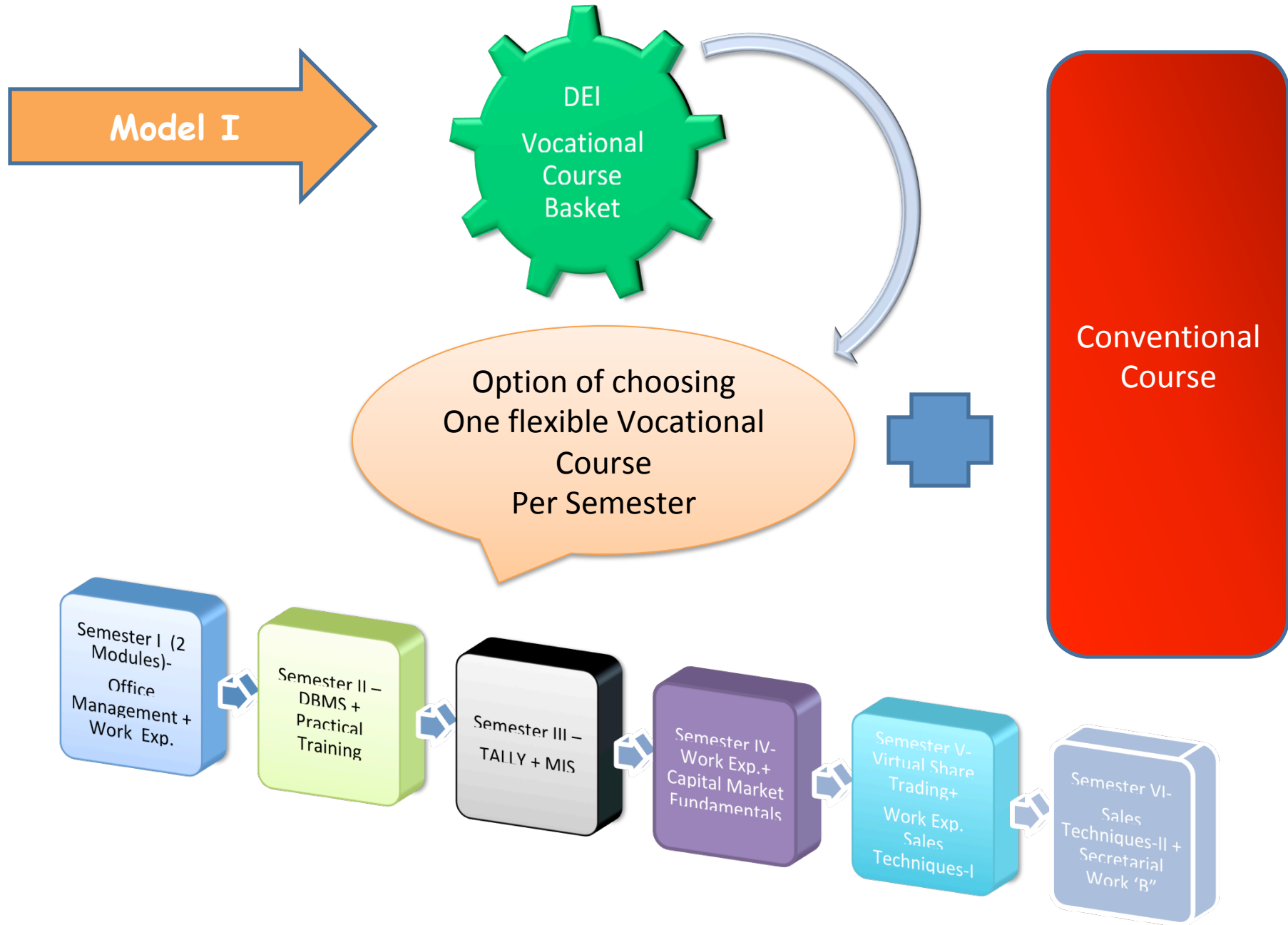
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- BA/B.Sc./B. Com. – More vocational options
- I Year conventional + Vocational from 2<sup>nd</sup> year onwards
- Major in Mainstream, Minor in Vocational
- Dual Degrees
- Honours year as Vocational
- Integration with a PG Diploma
- Lateral Movements from conventional to vocational, and vice-versa
- Vocational courses offered in Modular form with two modules per semester
- Complete vocational degrees – already exist in the form of B. Voc.

## 4. Final Models Shortlisted

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- **Model I – Embedded Model**
- One flexible Vocational course per semester, starting from Semester 1;
- In ancillary course format from a pool of vocational courses across the university



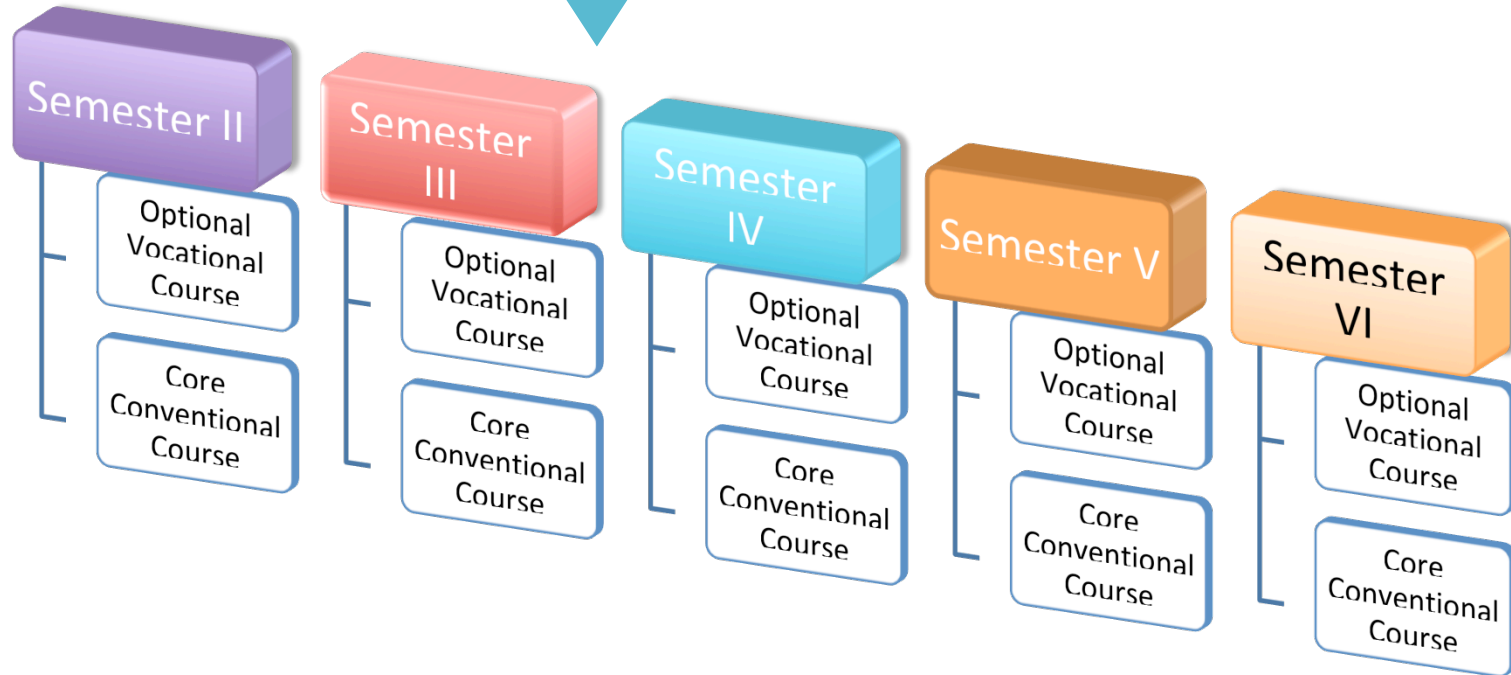
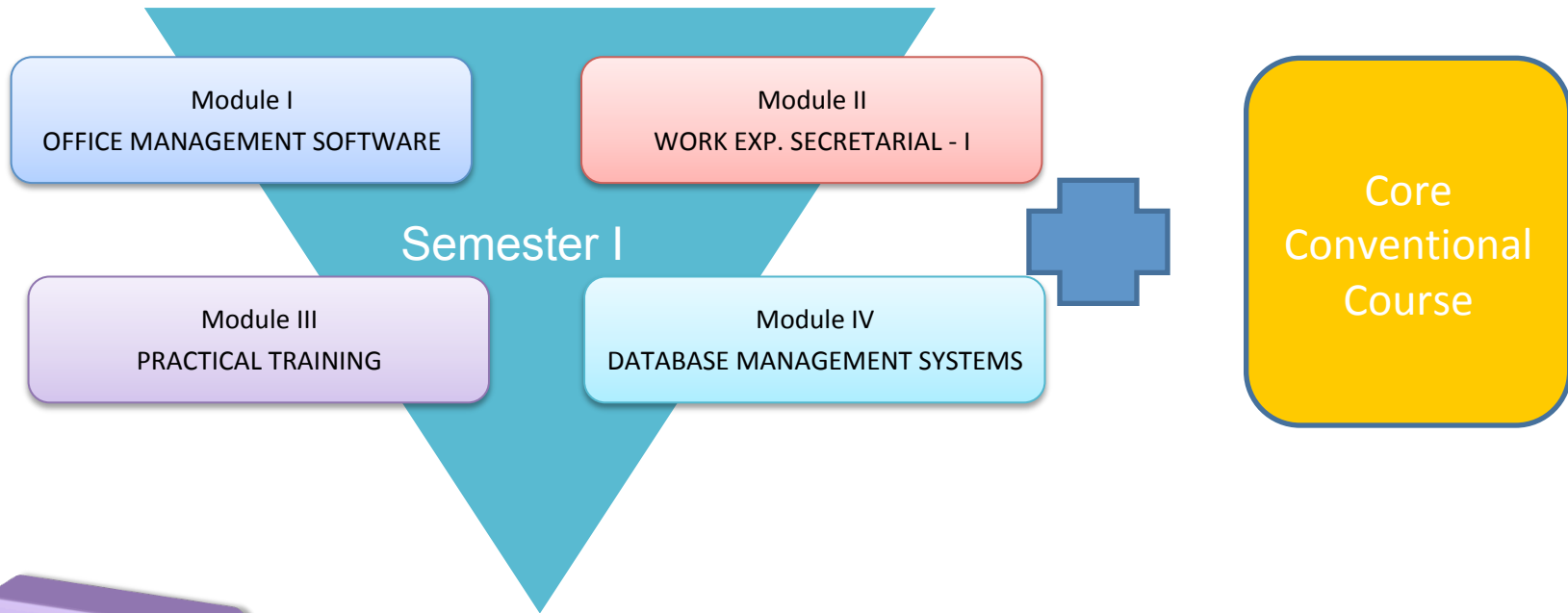


## 4. Final Models Shortlisted

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- Model II – Integrated Model
- In Semester 1, four compulsory vocational courses, one per module to the students of B.Sc., B.A., B. Com., Courses: IT, Accounting, Finance, Communication.
- Semester II onwards: optional vocational courses with core conventional courses.

Model II

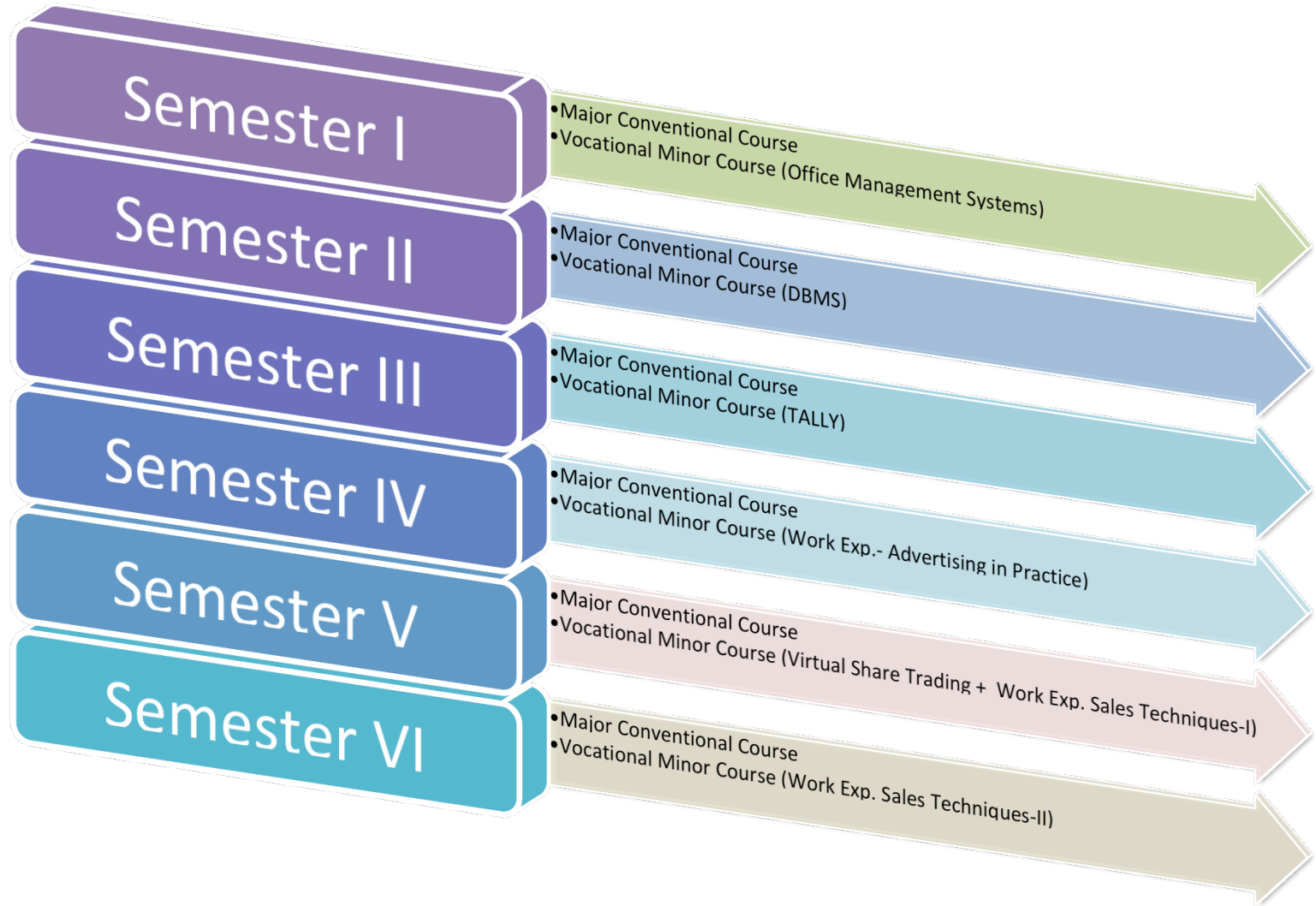


## 4. Final Models Shortlisted

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- Model III – Major/Minor Model
- Major in conventional stream
- Minor in following vocational specializations: BFSI (Commerce), General/Retail, Management, Drawing & Painting, Music, Agriculture

Model  
III



## 4. Final Models Shortlisted

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- Model IV – Apprenticeship Model
- Students to spend 3 hours per week in the classroom and,
- 3 hours per week as a trainee/ apprentice in a SKP facility, Mini plants, or local industry.

Model IV

Conventional Course



Vocational Courses

Class Room Learning

Apprenticeship

SKP facility  
Mini plants,  
Local industry

## 4. Final Models Shortlisted

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- Model V – BLENDED MODEL
- Flexible variants of the above models, (e.g., B.Sc. + Vocational I.T. Diploma)

Model V

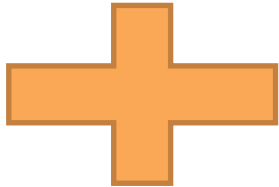
B.Tech.

B.Com.

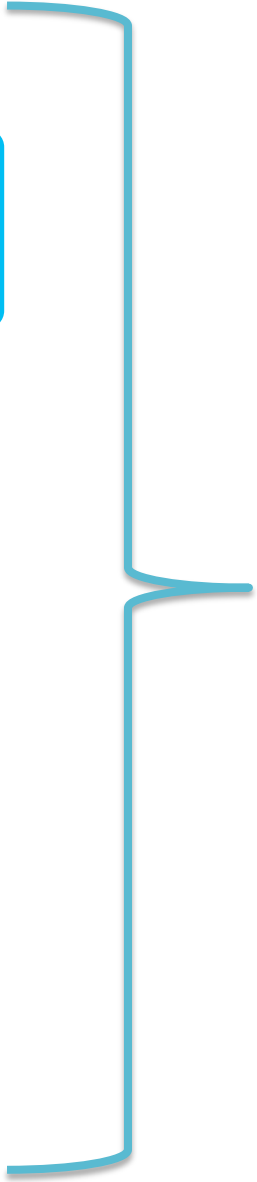
B.Sc.

B.A.

CONVENTIONAL COURSES



Diploma in Vocational Course



Degree + Diploma



# **Choice Based Credit System: Assumptions**

## **SECTION V**

**THANK YOU**