

COURSE SYLLABUS

RESEARCH METHODS

Course code: 290000

1. General information:

<i>Course type</i>		<i>Number of credits</i>	<i>Number of learning periods</i>
General	<input checked="" type="checkbox"/>	Theory: 2	Theory: 30
Basic	<input type="checkbox"/>		
Specialized	<input type="checkbox"/>	Exercise:.....	Exercise:.....
Required	<input checked="" type="checkbox"/>	Practice:	Practice:
Elective	<input type="checkbox"/>		

Learners:

Level	Bachelor
Discipline	Information Technology

Course requirements:

Prerequisites	N/A	Course code:
Parallels	N/A	Course code:
Other requirements	Soft skills	

2. Learning resources:

Prescribed textbooks	[1] Vũ Cao Đàm (2015). <i>Phương pháp luận nghiên cứu khoa học</i> . NXB Khoa học và Kỹ thuật.
Recommended textbooks	[1] Nguyễn Văn Minh (2015). <i>Giáo trình phương pháp nghiên cứu khoa học</i> . NXB TP HCM. [2] Đồng Thị Thanh Phương, Nguyễn Thị Ngọc An (2010). <i>Phương Pháp Nghiên Cứu Khoa Học</i> . NXB Lao động - Xã hội.

	[3] Rowena Murray (2006). <i>How to Write a Thesis</i> . OZ Graf .S.A.
Other learning materials	

3. Course description:

The course equips students with basic knowledge of scientific research methods such as describing steps of the research process and applying those steps in specific projects. The course will also provide students basic and essential skills to be a researcher, for instance, personal skills, professional skills, qualities as well as communication and teamwork skills.

4. Course learning outcomes (CLOs):

After finishing the course, students will be able to:

		<i>Satisfy LOs of the program</i>	<i>Satisfy LOs of the ABET</i>
❖ Topic 1: Disciplinary Knowledge and Reasoning			B.1.1 B.1.2 B.1.3 B.1.4 B.1.5 B.1.6
L1.	Present some of the concepts in scientific research	1.4.5	
L2.	Outline the steps of the research process		
L3.	Apply the steps of the research process		
❖ Topic 2: Personal and Professional Skills and Attributes			
L4.	Identify and formulate problems	2.1.1	
L5.	Search and gather information	2.2.2	
L6.	Think holistically	2.3.1	
L7.	Demonstrate ethics, integrity and social responsibility	2.5.1	
L8.	Determine priorities and importances	2.3.3	
L9.	Be inquisitive and capable of lifelong learning	2.4.6	
L10.	Manage time and resources	2.4.7	
❖ Topic 3: Interpersonal Skills: Teamwork and Communication			
L11.	Organize teamworks	3.1.2	

L12.	Communicate in written form	3.2.3	
L13.	Communicate using multimedia	3.2.4	
L14.	Present orally and negotiate	3.2.4	
❖ Topic 4: Conceiving, Designing, Implementing and Operating Systems in The Enterprise, Societal and Environmental Context – The Innovation Process			
L15.	Apply knowledge to undertake project-based courses	4.2.1, 4.2.2, 4.2.3, 4.2.4	

5. Course content:

Course contents	CLOs	Number of learning periods		
		Theory	Practice	Others
Chapter 1. Overview of scientific research	L1	2	0	
1.1. Concepts in scientific research				
1.2. Characteristics of research				
1.3. Classification of research				
1.4. Requirements in research				
1.5. Steps in the research process				
<input type="checkbox"/> <i>Personal and Professional Skills and Attributes</i>				
<input type="checkbox"/> <i>Interpersonal Skills: Teamwork and Communication</i>				
<input type="checkbox"/> <i>CDIO in the enterprise, societal and environmental context</i>				
Chapter 2. Research activities	L2	14	0	
2.1 Selecting topics				
2.2 Developing research proposals				
2.3 Collecting data				

2.4 Processing data				
<input type="checkbox"/> <i>Personal and Professional Skills and Attributes</i>	<i>L4 → L10: (I)</i>			
<input type="checkbox"/> <i>Interpersonal Skills: Teamwork and Communication</i>	<i>L11 → L14: (I)</i>			
<input type="checkbox"/> <i>CDIO in the enterprise, societal and environmental context</i>	<i>L15: (I)</i>			
Chapter 3. Research writing	L3	14	0	
3.1. Types of scientific reports				
3.2. Principles of scientific reports				
3.3. The structure of the scientific report				
<input type="checkbox"/> <i>Personal and Professional Skills and Attributes</i>	<i>L4 → L10: (I)</i>			
<input type="checkbox"/> <i>Interpersonal Skills: Teamwork and Communication</i>	<i>L11 → L14: (I)</i>			
<input type="checkbox"/> <i>CDIO in the enterprise, societal and environmental context</i>	<i>L15: (I)</i>			
<i>Summary of skills in course level</i>				
<input type="checkbox"/> <i>Personal and Professional Skills and Attributes</i>	After finishing the course, students are able to gain skills to identify and formulate research questions, search and gather information, think holistically, demonstrate ethics, integrity and social responsibility, determine priorities and importances, be inquisitive and capable of lifelong learning, and manage time and resources.			
<input type="checkbox"/> <i>Interpersonal Skills: Teamwork and Communication</i>	Students are able to gain skills to work in groups, communicate in written form, communicate using multimedia, and present orally and negotiate			
<input type="checkbox"/> <i>CDIO in the enterprise, societal and environmental context</i>	Students are able to gain skills to identify requirements and formulate objectives, determine current issues and gather requirements, analyse the feasibility of a project and manage it.			

6. Teaching and learning methods:

ID	Teaching method/technique		Description
M1.	Lecturing	<input checked="" type="checkbox"/>	
M2.	Questions – Answers	<input type="checkbox"/>	
M3.	Group-based Learning	<input checked="" type="checkbox"/>	
M4.	Problem-based Learning	<input type="checkbox"/>	
M5.	Project-based Learning	<input checked="" type="checkbox"/>	
M6.	Case studies	<input type="checkbox"/>	
M7.	Role play	<input type="checkbox"/>	
M8.	Demo	<input type="checkbox"/>	
M9.	Simulations	<input type="checkbox"/>	
M10.	Debate	<input type="checkbox"/>	
M11.	Game	<input type="checkbox"/>	
M12.	Brainstorming	<input type="checkbox"/>	
M13.	Think-Pair-Share	<input type="checkbox"/>	

7. Course assessment:

ID	Assessment activity		Quantity	Weight	LOs assessed
T1.	Text-based midterm exam	<input checked="" type="checkbox"/>		25%	L1, L2, L3
T2.	Text-based final exam	<input checked="" type="checkbox"/>		50%	L1, L2, L3
T3.	Practice midterm exam	<input type="checkbox"/>			
T4.	Practice final exam	<input type="checkbox"/>			
T5.	Report	<input checked="" type="checkbox"/>		25%	L1, L2, L3
T6.	In-class exercises	<input checked="" type="checkbox"/>		25%	L1, L2, L3

T7.	Homework assignments	<input checked="" type="checkbox"/>		25%	L1, L2, L3
T8.	Question – Answer	<input type="checkbox"/>			
T9.	Term Project	<input checked="" type="checkbox"/>		50%	L10
T10.	Final Exam	<input type="checkbox"/>			
Formula for Overall score		In-progress score = at least 2 activities among T1, T5, T6, T7 End-of-course score = T2 or T9 Final score = In-progress score + End-of-course score			

8. Course requirements and expectations:

8.1. Requirements on attendance

- Students are responsible for attending all classes. In case of absence due to force majeure circumstances, there must be sufficient and reasonable evidence.
- Students who do not attend more than 20% of the class sections, whether for reason or not, are deemed not to have completed the course and must re-enroll in the following semester.

8.2. Requirements and expectations on student behaviors

- Students must show their respects for teachers and other learners.
- Students must be on time. Students who are late more than five minutes will not be allowed to attend the class.
- Students should not make noises and interfere with others in the learning process.
- Students should not eat, chew gum, and use devices such as cell phones, music players during class hours.
- Laptops and tablets can only be used in class for the purpose of learning.
- Students who violate the above principles will be asked to leave the class and considered absent from the class.

8.3. Requirements on learning issues

Issues related to applying for score reservation, scoring complaints, scoring, exam disciplines are done according to the Learning Regulation of Tra Vinh University.

9. Tentative course instructor:

Phạm Minh Dương

DEAN

DEPARTMENT HEAD

LECTURER

Phạm Minh Dương