UNIVERSITÀ DEGLI STUDI DI TERAMO

UNITE

University of Teramo

MSc Food Science and Technology

Food Science and Technology

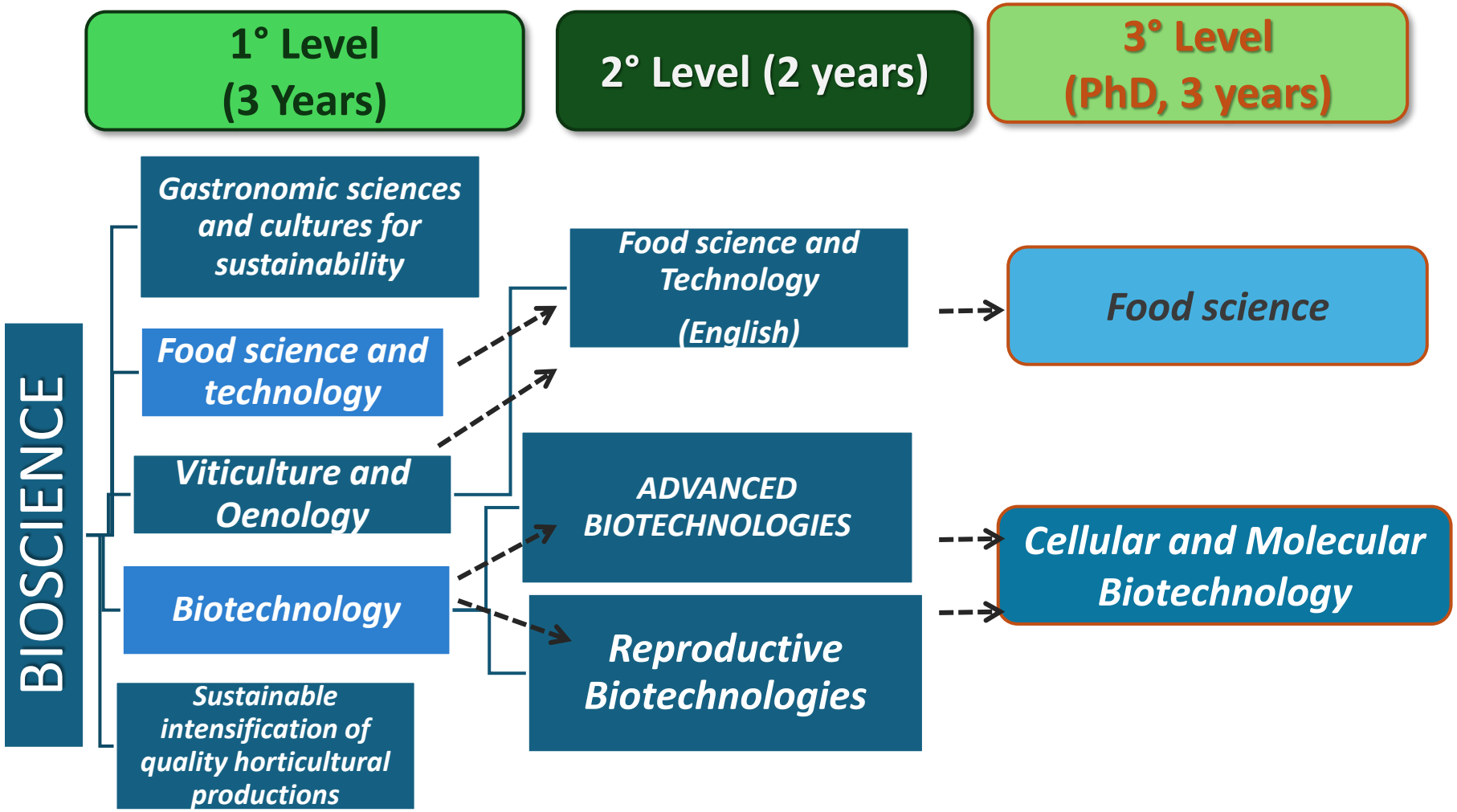




Teramo (Italy)
www.unite.it
echiodo@unite.it

Dep. of Bioscience & Tech. Food, Agr. Env.

STUDY PROGRAMMES



International Master degree in Food Science and Technology

Interdisciplinarity & «Food System» approach

Innovation (process, product, services)

Internationalization

Professional competences

I^3P

International Master degree in Food Science and Technology



COURSE DESCRIPTION

The International Master study (MSc) program in ***Food Science and Technology*** aims to train future food professionals with the knowledge, skills and competences

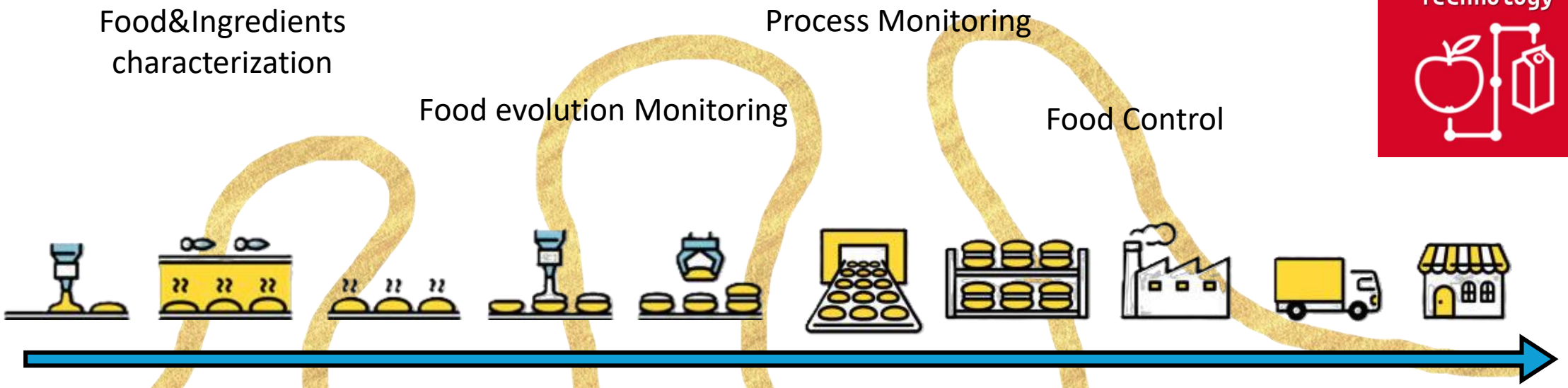
(i) to produce ***high quality, health and safe food products*** responding to the changing consumers' needs;

(ii) to promote ***innovation and digitalization in food processing*** with a responsible attention to the ***food system sustainability***.

KEY WORDS: future food generation - food systems, sustainable – breeding – crops - food factory – markets - quality assurance - food technologist – Research & Development.

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Food Science and Technology



Food&Ingredients characterization

Food evolution Monitoring

Process Monitoring

Food Control

Dairy,
Seafood,
Farming,
Crop…

Fermentation,
Roasting,
Backing,
Ripening…

Food process innovation,
Food innovation,
Alternative ingredients,
Smart packaging…

Food QUALITY
Food HEALTH
Food SUSTAINABILITY

Agri-Food Business
Marketing
Consumer sciences

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COURSE FEATURES

Food Science and Technology → **<u>two curricula</u>**

➡ **Sustainable Food System**

➡ **Food Process Innovation & Digitalisation.**



+ Internationalization

- International curriculum: **Double degree** in Food Science and Technology with the Chulalongkorn University (Bangkok, Thailand).

- '**Erasmus** for Study': More than **40 agreements**.

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Curriculum Sustainable Food Systems

1st year

Course	*ECTS*
Food product design	8
Marketing and agri-food business	6
Food process and wastewater engineering	9
Chemical analysis of foods and chemometrics	6
Industrial microbiology	10
Nutritional and applied biochemistry	7
Sustainable primary production	10
• *Crop production for agri-food chain*	*5*
• *Livestock production*	*5*
Optional courses	4
Total	*60*

2nd year

Course	*ECTS*
Technological strategies for sustainable foods	12
• *Advanced technologies*	*5*
• *Shelf-life calculation and estimation*	*5*
• *Innovation in managing fresh commodities losses*	*2*
Food legislation and policies	10
• *Food legislation*	*6*
• *Policies for sustainable food systems*	*4*
Food safety management	6
Optional courses	4
Traineeship	6
Master's thesis	22
Total	*60*

Curriculum Food Process Innovation & Digitalisation

1st year

Course	*ECTS*
Food product design	8
Marketing and agri-food business	6
Food process and wastewater engineering	9
Chemical analysis of foods and chemometrics	6
Industrial microbiology	10
Nutritional and applied biochemistry	7
Innovation and digitalisation approaches	10
• *Research and development for food innovation*	*5*
• *Experimental design and big data automation*	*5*
Optional courses	4
Total	*60*

2nd year

Course	*ECTS*
Innovation and shelf-life extension	12
• *Advanced technologies*	*5*
• *Shelf-life calculation and estimation*	*5*
• *Shelf-life extension of perishable foods*	*2*
Traceability of food supply chain	10
• *AI for food innovation*	*4*
• *Traceability and block chain*	*4*
• *Legislation for traceability*	*2*
Food safety management	6
Optional courses	4
Traineeship	6
Master's thesis	22
Total	*60*

International Master degree in Food Science and Technology

Curriculum Sustainable Food Systems

1st year

Course	*ECTS*
Food product design	8
Marketing and agri-food business	6
Food process and waste	
Chemical analysis of foo	
Industrial microbiology	
Nutritional and applied	
Sustainable primary pro	
• *Crop production for agri-*	
• *Livestock production*	
Optional courses	
Total	

2nd year

Course	
Technological strategies	
• *Advanced technologies*	
• *Shelf-life calculation and estimation*	5
• *Innovation in managing fresh commodities losses*	2
Food legislation and policies	10
• *Food legislation*	6
• *Policies for sustainable food systems*	4
Food safety management	6
Optional courses	4
Traineeship	6
Master's thesis	22
Total	60

Curriculum Food Process Innovation & Digitalisation

1st year

Course	*ECTS*
Food product design	8
Marketing and agri-food business	6
er engineering	9
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	10
hemistry	7
approaches	10
r food innovation	5
data automation	5
	4
	60

	ECTS
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Food safety management	6
Optional courses	4
Traineeship	6
Master's thesis	22
Total	60

Traineeship:

150 h of practice/ working experience in food factories, research centers, specialized laboratories, control bodies, …

International Master degree in Food Science and Technology

COURSES OBJECTIVES

Graduates in Food Science and Technology will be able to

- **design and develop**, manage, **monitor**, and coordinate processes and technologies within the food production at different levels: '*from farm to fork*'.
- **achieve and improve** the **quality & safety** of both traditional and innovative foods: gain skills in applying analytical and instrumental techniques within Quality Assurance and Control.
- work in different **Research & Development** fields: food technology, food and feed formulation, microbiology, chemistry, biochemistry, food chemistry, etc.

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CAREER OPPORTUNITIES

- Main areas of work are companies and industries of the agri-food sector at all levels, large retail companies, public and private institutes and organizations that are carrying out analysis, control, certification and research, training institutions and professional services.

- Agri-food economy, business and entrepreneurial skills could also allow to develop a business-oriented mindset and professional perspectives.

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HOW TO PARTICIPATE IN THE BLENDED COURSES (netiquette)

YOU ARE MANY!!! Please:

1. **Enter on time.**
2. **Keep your microphone muted during the lesson.**
3. **The teacher will leave room for questions during the numerous breaks and/or use the chatbox for questions.**
4. **The teacher will provide study material and suggest useful texts: our aim is to align the initial skill levels before lessons start.**
5. **Teachers are not required to provide information on the administrative or logistic aspects, please use the contacts we will provide today…**

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IMPORTANT INFORMATION

Lessons will start on **Monday October 12.**

First week: introductory week (partially in presence and partially online).
Second week: lessons in presence and blended learning (in-person and online). *Laboratories will be in presence!!!*

Lessons will end on **January 15** (some courses in December!!!)
Exams on January / February

Official enrollment: November 5th (March 2027 with an extra-fee).

Note: B2 English certificate + Assessment test + DOV or CIMEA (only for international students)

Guide for international students:
https://www.unite.it/English/Studying_at_UniTe/A_Guide_for_international_students

UNIVERSITÀ DEGLI STUDI DI TERAMO

Useful links

University website: https://www.unite.it/

Course webpage:
https://www.unite.it/UniTE/Didattica/Corsi_di_studio/Food_Science_and_Technology_LM70

Study catalogue
https://unite.coursecatalogue.cineca.it/corsi/2025/10415/insegnamenti

Department webpage
https://www.unite.it/UniTE/Home/Bioscienze_e_tecnologie_agro-alimentari_e_ambientali

Lessons calendar
https://www.unite.it/UniTE/Home/Bioscienze_e_tecnologie_agro-alimentari_e_ambientali/Lezioni_2/Lezioni_Food_Science_and_Technology

Elearning platform: https://elearning.unite.it/





UNIVERSITÀ DEGLI STUDI DI TERAMO

Contacts

Emilio Chiodo (Associate Prof. in Agri-food economics and marketing – Chair MSc Food Science and Technology) echiodo@unite.it

Annalisa Scroccarello (Researcher in Analytical Chemistry – Student Outreach Delegate) ascroccarello@unite.it

International Welcome Service: internationalwelcome@unite.it

Support to international students: ambassador@unite.it



Università degli Studi di Teramo,
Campus "Aurelio Saliceti"
via R. Balzarini 1 64100 Teramo (Italy)

International Master degree in Food Science and Technology

Development of skills and professional competences in an international perspective within a multicultural and inclusive framework



From A.Y. 2020-21

Curriculum for Double degree in Food Science and Technology with Chulalongkorn University-CU (Bangkok, Thailand)

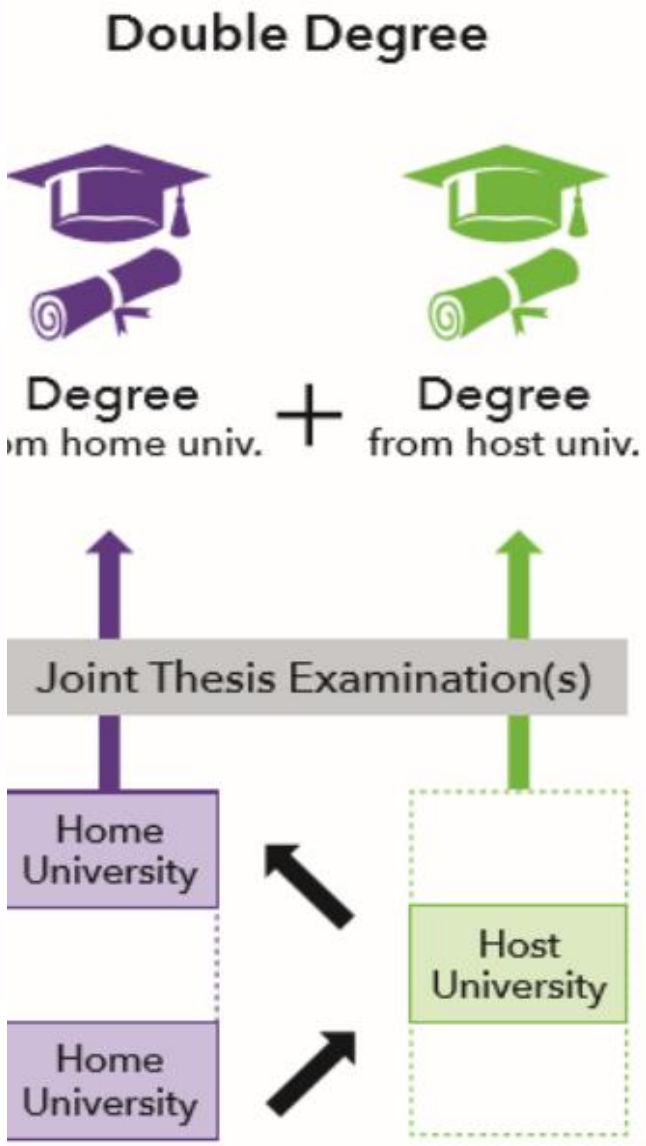
- 9 months @CU (thesis, classes)

https://www.unite.it/UniTE/Food_Science_and_Technology_Double_Degree

International Master degree in Food Science and Technology

Double Degree is an international joint education program carried out by **two partner institutions** located in two different countries.

Participants enroll as regular students at both institutions (home institution + host institution) and study towards achieving two equivalent level degrees.
In order to be awarded a Double Degree students must fulfill the requirements at both institutions.



International Master degree in Food Science and Technology

UniTE

I semester 1y → II semester 1y → Exams 1y → III semester 2y → IV semester 2y → «V» semester/ exams → THESIS

Application @ UniTE

Rome-Bangkok

IV semester 2y

Bangkok-Rome



CU

Ist semester 1y → II semester 1y → Exams 1y → III semester 2y → IV semester 2y → «V» semester/ exams → THESIS

Application @ CU

Bangkok-Rome

IV semster 2y

Rome-Bangkok

International Master degree in Food Science and Technology

Master degree
University of Teramo
Italy

Enrolled students have to do at the hosting university:

- Take **classes** on specific **courses** already fixed, and do corresponding exams and **get the ECTS planned** in the study program at the hosting university
- Project for final thesis (two tutors, one from CU, one from UNITE)
- Collaborate in **writing one original scientific paper** (compulsory), before thesis discussion

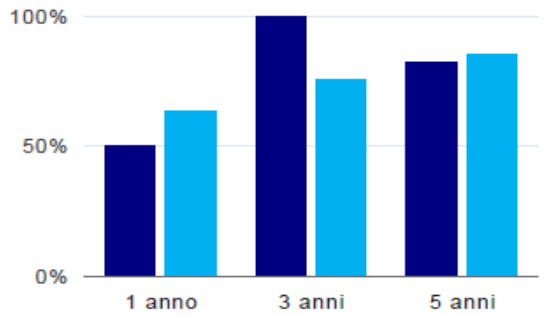
No extra fees
UNITE will support two grants for students (out of 5 places available)

International Master degree in Food Science and Technology

Master degree
University of Teramo
Italy

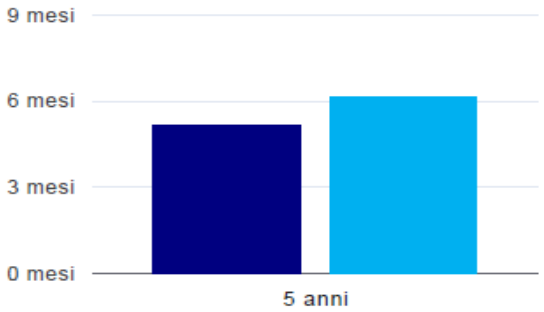
STUDENTS' EMPLOYMENT STATUS (AlmaLaurea, Survey year 2023)

Tasso di occupazione



	1 anno	3 anni	5 anni
corso	50,0%	100,0%	82,4%
Ateneo	63,0%	75,5%	85,2%

Tempi di ingresso nel mercato del lavoro, dall'inizio della ricerca al reperimento del primo lavoro (medie, in mesi)[1]



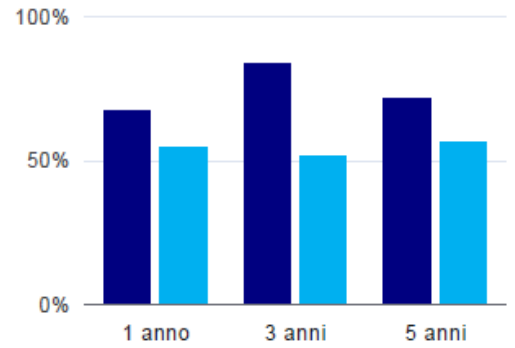
	1 anno	3 anni	5 anni
corso			5,1 mesi
Ateneo			6,1 mesi

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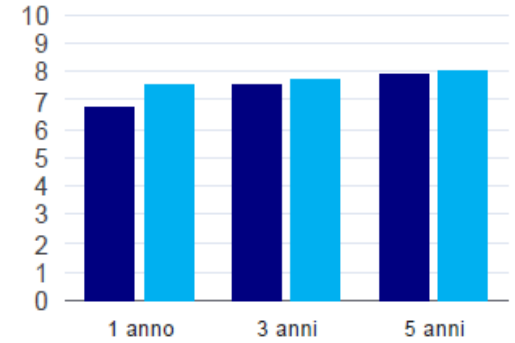
STUDENTS' EMPLOYMENT STATUS (AlmaLaurea, Survey year 2023)

Occupati che, nel lavoro, utilizzano in misura elevata le competenze acquisite con la laurea[1]



	1 anno	3 anni	5 anni
corso	66,7%	83,3%	71,4%
Ateneo	54,3%	51,4%	55,8%

Soddisfazione per il lavoro svolto (medie, scala 1-10)[1]



	1 anno	3 anni	5 anni
corso	6,7	7,5	7,9
Ateneo	7,5	7,7	8,0