



Polytechnic Institute of Bragança (IPB, Portugal) 2024/2025 — 2nd semester

Cybersecurity (6 ECTS credits)

Responsible: Tiago Pedrosa; E-mail: riftman@ipb.pt

Location: Bragança Campus

Partners: Bragança Polytechnic University (Portugal), Universidad de León (Spain), Bremen University of Applied Sciences (Germany)

Calendar: Virtual component starting 02/04/2025, ending 04/06/2025. Physical component starting 09/06/2025, ending 13/06/2025.

Level and field of studies: Bachelor and Master students in Computer Science

Contents: Fundamentals of system and network security. Concepts of cryptography. Vulnerabilities and attacks. Industrial Cybersecurity. Mechanisms for control, containment, detection and prevention. Systems and networks hardening. Security audit and penetration testing.

Emotional Education (6 ECTS credits)

Responsible: Maria A Romão da Veiga, Bárbara Barroso, Ana Paula Monte

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Location: Bragança Campus

Partners: Institut Regional de Formation Sanitaire et Sociale Limousin - Croix-Rouge Française, Wroclaw Medical University, University Hradec Králové

Calendar: Virtual component starting 22/04/2025, ending 12/06/2025. Physical component from 02/06/2025 to 06/06/2025.

Level and field of studies: Bachelor and Master and PhD students in any area: Emotional Education is training that cuts across all Scientific Areas. The selection of students considers preferably: Educational Sciences, Health Sciences, Social Sciences, Political Sciences or International Studies, Economics and Management, Engineering, IT, Mathematics, Astronomy, Marketing.

Contents: Emotional Intelligence (IE), Emotional Competence (EC), Emotional Education (EE): Concepts and neuro-differentiation. Emotion: Functions and Effects of Cognitive and Behavioral Processes. Emotion and Feeling: differences and expressions. EE for EC - Health Promotion/ EC Dimensions. Manage emotional states of the body vs Emotional regulation. The Microbiota-Gut-Brain Axis; Gut feelings: associations of emotions and emotion regulation with the gut microbiome. Be emotionally competent as Educator, Manager, Entrepreneur. EE Laboratories I, II: Immersive Emotion Management Strategies: Emotional management through body expression: dance/music therapy, sociocultural guided physical activity and interaction in art reflection. VirtualLab: Immersive experiences in virtual reality under technical and scientific guidance.

Business Sustainability and ESG (6 ECTS credits)

Responsible: Nuno Moutinho, Elaine Scalabrini, Paula Odete Fernandes

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Location: Bragança Campus

Partners: Stars-EU partners: University of La Laguna; Hochschule Bremen City University of Applied Sciences; Silesian University in Opava; University West; Aleksandër Moisiu University of Durrës

Calendar: Virtual component starting 09/04/2025, ending 30/04/2025. Physical component from 05/05/2025 to 09/05/2025.

Level and field of studies: Bachelor and Master students in Management, Economics and Engineering

Contents: Ethics of Sustainability: Environment, Governance, and Society; Sustainable Development; Circular Economy; Sustainable business models; Entrepreneurship as a factor for change; Environment, social and governance; Sustainability: Challenges & Opportunities; Company development based on sustainable innovation; Sustainable finance; Disclosure and reports; Sustainable marketing; ESG Strategy for companies.

Challenge Based Innovation (6 ECTS credits)

Responsible: Inês Barbedo, Pedro Rodrigues E-mail: <u>inesb@ipb.pt</u>; pedror@ipb.pt

Location: Bragança Campus

Partners: Prague University of Economics and Business; Universitat Rovira i Virgili

 $\textbf{Calendar:} \ \ \text{Virtual component starting} \ \ 10/03/2025, \ \ \text{ending} \ \ \ 27/06/2025. \ \ \text{Physical component from}$

09/06/2025 to 13/06/2025

Level and field of studies: Bachelor and Master students in all academic field

Contents: Digital Challenge-Based Learning (DCBL) arises from integrating digital transition themes, concerns, technologies, and / or tools into the Challenge-Based Learning (CBL) framework, applying active methodologies supported by lean design, design thinking and end-to-end problem design, in future oriented approach, structured in the following steps:

- ENGAGE team engagement and contract of teamwork, understanding the challenge and stakeholders' involvement by research and benchmark.
- ENVISION: Benchmark review, PESTEL analysis, and report development.
- IMMERSIVE WEEK: ideation, prototyping, development, and analyses of future-oriented scenarios.
- DEMONSTRATE AND COMMUNICATE: prototype and pitch the project.

Integrated Multimedia Project (Local markets) (5 ECTS credits)

Responsible: Ana Lúcia Pinto, Carlos Casimiro Costa

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Location: Mirandela Campus

Partners: Universitatea Ștefan cel Mare Suceava, Universitatea Politehnica Timișoara, University of Silesia (Krzysztof Kieślowski Film School), Silesian University in Opava, University de la Laguna

Calendar Virtual component starting 05/03/2025, ending 27/04/2025. Physical component from 28/04/2025 to 02/05/2025.

Level and field of studies: Arts and humanities | Bachelor and master students

Contents This BIP project operates within a co-creation framework, aiming to promote a profound understanding of the social and cultural geographies of communities by exploring their origins and engaging with specific contexts and identities. It adopts a holistic perspective on developing creative projects, animation, design, photography, cinema, drawing, architecture, digital media, and music. These initiatives are intricately connected to local markets and their cultural genesis, ensuring their relevance and authenticity.

The work emphasizes active involvement in real-world research, focusing on cultural and ethnographic values. By mastering systemic methodologies within social contexts, the project seeks to explore the sensitive identity of markets and local communities across Europe. This approach connects historical roots to contemporary realities and future possibilities while strongly focusing on the present.

Markets, historically the heart and soul of cities, act as generational hubs, preserving human identity and specificities. As places of social development, they serve to revitalize traditions and languages, reinforcing memory and identity in alignment with the principles of the European Project.