



# **Escola Secundária João Gonçalves Zarco Portugal**

## **MODULE 3 DIFFUSION CHANNELS DU 3 – RELIABLE SOURCES OF INFORMATION**

## Part I

Title (DU title)	<b>DU 3 – RELIABLE SOURCES OF INFORMATION</b>
Author/s (name of the teachers involved)	Ana Fernandes, Ana Moura, Isabel Fernandes, Manuela Galante, Olívia Rodrigues
Discipline/s involved	Physics & Chemistry, Portuguese and English
Index of contents	<ul style="list-style-type: none"><li>• New Psychoactive Substances (NPS) spread through user populations and became popular in the past decade;</li><li>• This module presents the diffusion of NPS in the frame of Rogers' 1962 diffusion of innovations theory (DOI) to help better understand the spread of NPS;</li><li>•</li></ul>
Learning objectives	<ul style="list-style-type: none"><li>• The aim of the module is to provide a learning context to gain knowledge in order to make an informed decision regarding NPS consumption.</li><li>• This module aim to describe the phenomena of pharmaco-toxicokinetic and contextualize the</li></ul>

	<p>pharmacological and toxicological consequences related to the absorption, distribution, metabolism excretion and transport (ADMET) of xenobiotics (drugs and toxic compounds).</p> <ul style="list-style-type: none"> <li>• The students will contact with movies showing the ADMET processes as well as research data that will allow them to interpret the risks associated with xenobiotic exposure related to their disposition in the organism</li> </ul>
Times, materials, and spaces (physical/virtual)	<ul style="list-style-type: none"> <li>• Meetings with students</li> <li>• Emails</li> <li>• Classrooms</li> <li>• Google Meets</li> <li>• Zarco Auditorium</li> <li>• Laptops</li> <li>• INES Moodle Platform</li> </ul>
Teaching strategies	<ul style="list-style-type: none"> <li>• Information from INES Moodle Platform (Comprehension)</li> <li>• Brainstorming</li> <li>• Roleplays</li> <li>• Mindmaps</li> </ul>

	<ul style="list-style-type: none"> <li>• Face-to-face Collaborative Work</li> <li>• 5 students working groups per Module of their choice.</li> <li>• Teamwork</li> </ul>
Mediation tools	<ul style="list-style-type: none"> <li>• Mindmaps</li> <li>• Blended Learning Process</li> <li>• Collaborative Teaching</li> <li>• Debates</li> <li>• Feedback exchange</li> <li>• Group discussion</li> <li>• Project-Based Learning</li> <li>• Learning videos</li> <li>• Mentoring, Coaching and Counselling</li> <li>• Peer to peer discussion</li> <li>• Work in Teams</li> </ul>
Activity involving students in the process of co-construction of the content/activity	<ul style="list-style-type: none"> <li>• The students started out by doing the Formative Test and participate in the Forum</li> <li>• The students read all the information and watched the videos contained in Module 3</li> <li>• They wrote the Mind map based on the information read</li> </ul>

	<ul style="list-style-type: none"> <li>• They created a KAHOOT with 5 questions based on DU3 from Module 3</li> </ul>
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## Part II

<b>Describe the Teaching-learning sequence</b>	<p>Lesson 1 (50 min)</p> <p>Teaching-learning sequence (micro-planning)</p> <p>20 min.-Topic overview with MINDMAP</p> <p>10 min.- Checking digitally with KAHOOT feedback</p> <p>15 min. - Debate</p> <p>5 min. – Remarks, assessment and conclusion</p>
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## **Part III**

### **Teaching-learning Materials**

#### **MIND MAP**

<file:///C:/Users/HP/Desktop/WORK%20DONE/MODULE%203%20Mindmap-%20diffusion%20channels.pdf>

#### **KAHOOT & GOOGLE FORM**

<https://play.kahoot.it/#/?quizId=6816ba18-cc77-4f4a-a2b5-2f50888e5177>

[https://docs.google.com/forms/d/1SygkXCRqa06asnt\\_EoSTuwMr\\_66kbAKI5U5kcURD\\_rY/edit?ts=64229701](https://docs.google.com/forms/d/1SygkXCRqa06asnt_EoSTuwMr_66kbAKI5U5kcURD_rY/edit?ts=64229701)