DR NES

DIGITAL TRANSFORMATION IN JOURNALISM AND NEWS MEDIA

Curriculum on how to use DRONES (IO3)
PROJECT NUMBER: 2021-1-PT02-KA220-YOU-000029077

MODULE 2: RULES AND REGULATIONS (YuzuPulse)

Learning Units:	Unit 1: European regulation Unit 2: Basic rules to flight safely Unit 3: The categories of drone
Total n. hours	3h
Objectives	This module can seem to be heavy and not the funniest, but it will allow you to have a safe flight and avoid dangerous situations. It is very important to be careful with drones today as new regulations are created to frame their use. Here, we are going to talk about European regulations. Disclaimer: This module won't tackle the national regulations concerning drones as they would be too long and super heavy as they are all different. • Understand the importance of regulations and the potential threats using drones without being careful • Learn the rules to respect, and use the drone safely. • Know how to differentiate drone categories and their risk
Target group	Young people (18-30 years old) and interested stakeholders to learn using the DRONES in their lives and professions (journalists, bloggers, teachers, and other trainers and educators, etc)
Outcomes:	
- Knowledge	• Explains the main European regulations • Implements the rules to fly safely • Understands whom the regulation protects • Classifies the drone into their correct category • Recognises the main threats and risks.
- Skills	• Flies safely avoiding dangerous situations • Uses the drone correctly according to the environment • Identifies the environment and recognizes the threats
- Attitudes	• Operates administrative procedures • Compares the different authorizations and categories to choose the one that suits the best
Method of training /learning	Group learning

Training material and tools needed	A computer and the Internet to follow the module and to pass the evaluation.
More information	DRONES platform: https://drones-programme.web.app/ DRONES website: https://drones-programme.netlify.app/
References	Bibliography: • SESAR Joint Undertaking, (November 2016). "European Drones Outlook Study, Unlocking the Value for Europe". https://www.sesarju.eu/sites/default/files/documents/reports/European_Drones_Outlook_Study_2016.pdf • European Commission, (n.d.). "Unmanned aircraft", Defence Industry and Space. https://defence-industry-space.ec.europa.eu/eu-aeronautics-industry/unmanned-aircraft_en • European Council, (2021, September 13). "Drones: reform of EU aviation safety". https://www.consilium.europa.eu/en/policies/drones/ • European Union, (2019, March 12). "Commission delegated regulation (EU) 2019/945. https://www.consilium.europa.eu/media/40525/delegated-act_drones.pdf • EASA, (2022). "Civil drones (unmanned aircraft)". https://www.easa.europa.eu/sites/default/files/dfu/Q&A_Commission_Drones.pdf • Ministère chargé des transports, DGAC, (2022, November 29). "Guide, associations d'aéromodélisme". https://www.ecologie.gouv.fr/sites/default/files/Guide_Associations_aeromodelisme.pdf • Drone Geofencing, (2021, October 7). "Législation drone européenne, déclaration d'autorisation de vol dans un autre pays européen (procédure cross-border). https://drone-geofencing.fr/legislation-drone-vol-pays-europeen/ • Les droners, (n.d.), "Réglementation drone: ce qu'il faut savoir pour voler en sécurité", https://lesdroners.fr/univers-drone/reglementation-drone/ • Ministère de l'environnement , de l'énergie et de la mer, DGAC, (n.d.), "Vol de drone en agglomération, connaître la réglementation et la faire respecter pour

garantir la sécurité de tous".
https://www.ecologie.gouv.fr/sites/default/files/Memento_drones_collectivites_locales.pdf

- Ministère chargé des transports, DGAC, DSAC, (2022, September 22). "Réglementation européenne UAS", https://www.ecologie.gouv.fr/sites/default/files/Presentation_reglementation_europeenne_drones.pdf
- Les droners, (n.d.). "Classe drone: la nouvelle réglementation européenne". https://lesdroners.fr/univers-drone/reglementation-drone/classe-drone/#:~:text=Cat%C3%A9gorie%20Ouverte%20limit%C3%A9e%2C%20faites%20voler%20vos%20anciens%20drones&text=UAS%20de%20moins%20de%20500,%2C%20commerciales%2C%20industrielles%20et%20r%C3%A9cr%C3%A9atives.
- UAV Coach, (n.d.). "Drones Laws in the European Union, Drone regulations and links for people flying drones in the European Union". https://uavcoach.com/drone-laws-in-the-european-union/#:~:text=You%20must%20register%20with%20the,Identification%20System'%20of%20your%20drone.
- ALPHATANGO Website, https://alphatango.aviation-civile.gouv.fr/login.jsp
- Ministères de la transition écologique et de la cohésion des territoires, DGAC, (2022, June 3). "Guide, usages de loisir et professionnels simplifiés des éaronefs sans équipage à bord, catégorie ouverte". https://www.ecologie.gouv.fr/sites/default/files/Guide_categorie_Ouverte.pdf

Images:

- Photo from Flo Dnd on pexels.com, https://www.pexels.com/fr-fr/photo/drone-blanc-volant-2100075/
- Photo by JESHOOTS.com from pexels.com, https://www.pexels.com/fr-fr/photo/silhouette-de-drone-camera-a-vole-en-plein-air-442587/
- Photo by More on my YouTube from pexels.com, https://www.pexels.com/fr-fr/photo/signe-ciel-bleu-securite-protection-4977524/
- The quizzes were created with app.genia.ly

	• All icons used for the Genially quizzes are from Flaticon.com. • The infographics were made with Canva.

LEARNING UNITS

UNIT 1

Title	**European regulation**
Aims	• To understand the importance of regulations • To understand why the EU decided to create European drone legislation.
Description of the activities	**This course will be theoretical.** **PREPARATION of the students** **Questions to make students question themselves on the drone EU regulation.** • Do you think all European Union countries are at the same level of development in the drone industry? • What do you know about drone regulation in your own country? • Do you feel like drone use is increasing or decreasing today? • What can be the reason why the EU decided to create a new regulation? **IMPLEMENTATION - Individual or group lecture** The teacher can use this Genially support to do the lecture: https://view.genial.ly/63e22857b66e8200134d2cc9/presentation-genial-presentation Course content: The new regulations of drones by the EU can be explained through two main reasons. The first one is about safety and privacy. Indeed, flying a drone without being aware of the dangers could be very risky as European airspace is common for every European country. If every

country has its own rules in a common area, it cannot function right. Therefore, the adoption of the new European regulation allows the standardization of all country rules.

Before the revision, the competencies of the EU stopped to drones of 150 kg or less, but starting in 2018, many little drones were created and sold to the main public. Their use was not controlled depending on the country, and sometimes basic safety rules were not respected. The reform for new proportionate and risk-based rules was adopted on the 26th of June 2018 and established new common rules for safety, security, and privacy. It revised the European Aviation Safety Agency (EASA) mandate (European Council, 2021).

The second reason is economic. Facing the massive expansion of drone use during the past few years, and its benefits for job creation and economic growth in European Union, they decided to pass a new regulation to better integrate them into the European airspace (European Council, 2021). According to the European Commission, in 20 years, the European drone sector could employ more than 100 000 people and be a great promise.

Since the 1st of January 2021, there are new categories of drones.

If you have a drone of more than 250 g, you need to register with your National Aviation Authority as a UAS operator once, no matter how many drones you have. You will receive an operator number valid in all other EASA Member States. You have to put it as a tag on all your equipment and drone. Your drone should also have the mention of your drone CE class (C0, C1, C2, C3, C4, C5, C6). You also need insurance if your drone is over 20kg. Most of the EASA Member states ask also for third-party insurance but this is on the national level.

However, the regulation of airspace is still in charge of national authorities. Therefore, check your national regulations to complete this course. See the resources to search for your national authority (FR, PT, MT, SY, IT)

FOLLOW-UP

Discuss with students if they have questions.

Improve critical analysis skills:

	You can create a little debate on if they think that the EU regulation is a good or a bad idea. You can divide students into little groups of four and ask them to prepare some arguments for or against EU harmonisation of drone regulation. One group for and one group against will debate. They will have 10 minutes each. You can choose any other subject to debate related to this unit. Then, you can make them take the quiz to test their new knowledge.
Resources	**National authority in drone regulation:** **Portugal**: Autoridade Nacional da Aviação Civil (Portuguese Civil Aviation Authority): **France**: Direction générale de l'aviation civile (Directorate General for Civil Aviation) **Malta**: Civil Aviation Directorate **Slovenia**: Javna agencija za civilno letalstvo Republike Slovenije (Civil Aviation Agency of the Republic of Slovenia **Cyprus**: Unmanned Aircraft Systems Department of Civil Aviation **Italy**: Ente Nazionale per l'Aviazione Civile (Italian Civil Aviation Authority) Information about the NAA of all EASA Member States You can find more information on the official website of the European Union Aviation Safety Agency (EASA).
Evaluation	Online quiz: https://view.genial.ly/6391fffa64e88d00106abe80/interactive-content-basic-quiz

UNIT 2

Title	**Basic rules to fly safely**
Aims	- To understand how much safety and privacy are important in this new revision of drone regulation. - To know what aspects are regulated by the EU. - To be able to do a cross-border procedure to use your drone in another country.
Description of the activities	**This course will be theoretical.** **PREPARATION of the student** **You can ask questions to make students question themselves on basic rules of safety as a warm-up. Exemples of questions:** - Can you name one safety rule? - What are the most dangerous situations when you pilot your drone? - Would you be okay if someone used their drone to film your house and garden? - What do you think could happen if a drone meets an airplane? **IMPLEMENTATION** The teacher can use this Genially as a support to the lecture: https://view.genial.ly/63e2355e5608020010136ff2/presentation-dronesmodule-2unit-2 COURSE CONTENT – Individual or group lecture An information leaflet must be provided with the packaging of drones offered for sale which specifies the 10 rules to be followed for any use of a leisure drone. Regulations are to protect other UAVs and people on the ground. - Do not fly over people - Respect the maximum flight height (120 metershigh), however sometimes it can be less according to the localization. There are places where you are forbidden to use your drone. - Never lose sight of your aircraft and do not use it at night - Do not fly your aircraft over public areas in built-up areas - Do not fly your aircraft near airfields - Do not fly over sensitive or protected sites - Respect the privacy of others, by not distributing photos without the agreement of the persons concerned, and by not making commercial use of them - Check under what conditions you are insured for this activity In case of doubt, contact your country's authority

Here are the places where you cannot fly your drone:
- Airport
- Heliport
- Aerodromes
- nuclear power stations,
- military sites,
- hospitals,
- jails,
- nature reserves,
- urban areas
- crash sites or fire (as safety operations can happen at the same time)

You can encounter other people in the airspace like emergency helicopters or military aircraft. They can fly at low altitudes where you fly your drone. In that case, you need to land your UAV as they have priority. Please check with your NAA what zones you cannot fly your drone or where you need authorization before entering.

You must be 16 to pilot a drone and have your certificate. However, certain EASA Member States allow a lower minimum age requirement.

What is this certificate? You need to do training and pass a test for UAVs of more than 250g or less but equipped with data-registered tools like cameras. The certificate says that you passed the test successfully and is valid for a period defined. After this period, you have to pass it again. Don't worry, it is free and you can do it as many times as you need to.

If you fly your drone without your certificate, you will have a fine of 450€ and 38€ if you have passed the test but cannot show your certificate immediately.

THE CERTIFICATE

HOW TO OBTAIN IT?

Training + Test
It is necessary for UAVs of <250g (or less but equipped with data-registered tools).

CAN IT BE EXPIRED?

Yes, the certificate is only valid for a defined period.
You have to pass it again when it expires.

It is free and you can do it as many times as you need to.

WHAT HAPPEN IF YOU FLY WITHOUT IT?

You will have to pay a fine of 450 €.

If you have passed the test but cannot show your certificate immediately, it is 38 €.

If you violate the safety rules and overflight bans, you risk one to six months imprisonment and a fine of €15,000 to €75,000, as well as having your drone confiscated.

You can have specific authorization to fly your drone in another European State. It is called a cross-border procedure. You can fly in another European state only if this country signed the EU947 decree. However, you need to do some research on your national regulation to check if there are some changes from the European rules.

FOLLOW-UP

Discuss with students if they have questions.
You can start a conversation about their opinion on the safety of drones. Ask them if they know stories or examples of wrong behaviour with drones.

Then, you can make them take the quiz to test their new knowledge.

Create a debate on the ethical use of drones. Now that your students know the basic rules of safety for drones, you can deep into the "why". Don't make it too long, just to introduce their written assessment.

Give your student a situation such as:
- Private life and drones in the journalism sector
- Accidental zones and drones as a journalist

	Ask them to write 2 pages on this subject related to the safety rules as a journalist using a drone who is asking himself how to handle the specific situation. This exercise should make them aware of the importance of the safety rules.
Resources	These are UAS geographical zones map from the consortium countries:

France

Portugal

Malta

Italy

Slovenia

Cyprus

Information about the NAA of all EASA Member States. |
| Evaluation | **Online quiz:**
https://view.genial.ly/639312aca8319900106fe29f/interactive-content-unit-2quiz

Writing assessment:
Give your student a situation such as:
- Private life and drones in the journalism sector
- Accidental zones and drones as a journalist
Ask them to write 2 pages on this subject related to the safety rules as a journalist using a drone who is asking himself how to handle the specific situation. This exercise should make them aware of the importance of the safety rules. |

UNIT 3

Title	**The categories of drones**
Aims	• To understand the European classification
• To differentiate the drones and their regulations according to their risk
• To acquire administrative skills
Description of the activities	**PREPARATION**

Warm-up

The teacher can ask questions to make students question themselves on drones' categories. Examples of questions: |

- Do you know the different categories?
- How drones could be categorized?
- For what purpose you can use a drone?
- Are you facing the same risk in any flight context?

IMPLEMENTATION:

The teacher can use this Genially as a support for the course:

https://view.genial.ly/63e235604161c5001868c80c/presentation-dronesmodule-2unit-3

COURSE CONTENT – Individual or group lecture

Drones are split into categories and classes according to the risk of their practice. The classes of drones are defined by the level of risk and take into account numerous criteria such as the mass of the drone or its noise level.

Open category:
It gathers all low-risk practices or leisure activities.

The teacher can ask if any students are already familiar with this category. Then he proposes a definition.

What is it?
In this category, there are C0 to C4 classes of drones. These drones can fly without any authorization, as long as you respect the rules of the air, and you are registered with the **National Aviation Authority (NAA)** of your country, or in the **EU country where you intend to fly your drone**.

Be careful:
Your drone and equipment should be conformed to European regulations, that is to say, CE brand with drone class indication, and tag with your number of UAS operators (provided when you registered with the NAA). The drone must be radio-controlled or controlled by a tether connected to a person or the ground in the case of tethered drones.

The different sub-categories are:
- A1: flights over people tolerated for UAS of less than 900g (Classes C0 and C1) are allowed. However, you must stay away from gatherings of people.
- A2: flights are tolerated up to 30m away from people or 5m with a "low speed" function for drones less than 4kg. (Class C2)

- A3: For less than 25 kg drones, you can fly at 150m or more from residential, commercial, industrial, and leisure zones. (Class C3 and C4).

The different classes of open-category are:
- Class C0 (less than 250 grams)
- Class C1 (between 250 and 900 grams and equipped with a direct remote identification function)
- Class C2 (between 900 grams and 4 kilograms and equipped with a direct remote identification function and a low-speed mode)
- Class C3 (between 4 and 25 kilograms and equipped with a direct remote identification function)
- Class C4 (between 4 and 25 kilograms and equipped with a direct remote identification function)

As you can see, flying over people is tolerated, but only with the people's consent. However, flying is allowed in private areas with the owner's consent, in authorized model aircraft sites, and certain public areas.
Also, if you are flying a C0 and A1 drone, you don't need any minimum age requirement.

The teacher can ask if any students are already familiar with the specific category. Then he proposes a definition.

Specific category:
This category is for moderated risk operations. It allows "out of sight" flights as well as flights in some places where they can be potential dangers such as urban areas, close to aerodromes… This is mainly for professional use. Drones are from 25kg or more.

What you need:
- You will have technical (UAS with class C5-C6 endorsement), operational, and training requirements. You will pass theoretical and practical training so you can get a certificate.
- You will need an Operator's declaration of conformity, so being registered with your NAA
- You should possess an Operations Manual (Manex)

Starting in 2024, you will have two possibilities or "**scenarios**" to pilot a drone of a specific category:
- The first possibility is to follow the European scenario called "**STS-01**": it is when your flight is under visual control in a populated or unpopulated area with a drone of class C5.
- The second possibility is to follow the European scenario "**STS-02**": it is when your flight is out of sight, but under the control of visual

| | observers in charge of the surveillance of the airspace and at a distance of less than 1 km from the pilot with a drone of class C6.

Until 2026, you can keep flying under national standard scenarios as there is a transition period.
You can also have the authorization to use your drone without following these two European scenarios and still being in the specific category.
- There is the **SORA** or **Specific Operations Risk Assessment** which evaluates the risks you will go through, for people and goods on the ground, for risk of impact, and for the risk of the drone slipping from your control.
- There is the **PDRA** or **Pre-Defined Risk Assessment** which is like the SORA but for a specific type of operation such as a flight of a standard scenario but without a C5 or C6 drone.
- In case you need to do a lot of operations that cannot be included in the STS, then you can ask for a **LUC** or a **Light UAS Operator Certificate**.

Certified category:
The teacher can ask if any students are already familiar with this category. Then he proposes a definition. However, make sure to indicate that this category won't be used for their activity, except if they decide to do war journalism. This is a specific training that we cannot provide.

This category is for high-risk operations. You will not need it as it is for people and good transportation, and a flight over a gathering of people.

FOLLOW-UP

Discuss with students if they have questions.
Ask your students: what type of journalism or media-related job would they like to do? In this job, what kind of risk would it be?
Make them think about the situation they would be in.

Then, you can make them take the quiz to test their new knowledge. |
|---|---|
| Resources | Here is a FAQ for the open category by the EASA and the specific category. |
| Evaluation | Online quiz:
https://view.genial.ly/63931abd45353400176af5cc/interactive-content-unit-3quiz |