# [MNB002] OFFENSIVE SECURITY

## GENERAL INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| **Studies** | Data Analysis, Cybersecurity and Cloud Computing | | | **Subject** | Cybersecurity |
| **Semester** | 2 | **Course** | 1 | **Mention / Field of specialisation** | |
| **Character** | COMPULSORY | | | | |
| **Plan** | 2019 | **Modality** | Adapted Face-to-face | **Language** | ENGLISH |
| **Credits** | 3 | **Hours/week** | 0 | **Total hours** | 32 class hours + 43 non-class hours = **75 total hours** |

## PROFESSORS

EZPELETA GALLASTEGI, ENAITZ

## REQUIRED PREVIOUS KNOWLEDGE

| Subjects | Knowledge |
|---|---|
| *(No specific previous subjects required)* | *(No previous knowledge required)* |

## SKILLS

**VERIFICA SKILLS**

**SPECIFIC**

**MNCE07** - Defining, designing and conducting offensive security audits on target networks and infrastructure, exploiting existing vulnerabilities, so that it can identify different attack vectors.

**CROSS**

**MNCTR1** - Ability to work in multidisciplinary teams and in a multilingual environment (Basque/Spanish/English) and to communicate, both orally and in writing, knowledge, procedures, results and ideas related to the life cycle of the data, cybersecurity, and development and operations.

**BASIC**

**M_CB10** - To have learning skills and the capacity for self-guided or independent subsequent learning.

## LEARNING RESULTS

**RA221 The student knows how to recognize different possible attack vectors in one or several targets based on the analysis of information sources and performing reconnaissance, individually or in a coordinated manner in groups**

| LEARNING ACTIVITIES | CH | NCH | TH |
|---|---|---|---|
| Development, writing and presentation of memorandums, reports, audiovisual material, etc. Relating to projects/POPBLs carried out individually or in teams | 7 h. | 15 h. | 22 h. |
| Individual study and work, tests and evaluations and check points | 2 h. | 8 h. | 10 h. |
| Classroom presentations of relevant concepts and procedures in participatory environments | 6 h. | | 6 h. |
| Individual and team solving of exercises, problems, and practices | 3 h. | 4 h. | 7 h. |

| EVALUATION SYSTEM | W | MAKE-UP MECHANISMS |
|---|---|---|
| Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence | 17% | Individual written and oral tests to assess technical skills of the subject |
| Written, coding/programming and individual oral tests for the evaluation of technical skills in the field | 83% | |

**CH - Class hours:** 18 h.
**NCH - Non-class hours:** 27 h.
**TH - Total hours:** 45 h.

**RA222 The student knows how to exploit vulnerabilities that may compromise the targets, minimizing the exposure to possible security countermeasures that they may have**

| LEARNING ACTIVITIES | CH | NCH | TH |
|---|---|---|---|
| Development, writing and presentation of memorandums, reports, audiovisual material, etc. Relating to projects/POPBLs carried out individually or in teams | 2 h. | 6 h. | 8 h. |
| Classroom presentations of relevant concepts and procedures in participatory environments | 8 h. | | 8 h. |
| Individual and team solving of exercises, problems, and practices | 4 h. | 10 h. | 14 h. |

| EVALUATION SYSTEM | W | MAKE-UP MECHANISMS |
|---|---|---|
| Reports of solving exercises, case studies, computer | 100% | Reports of solving exercises, case studies, computer practices, |

| | |
|---|---|
| practices, simulation practices and laboratory practices | simulation practices and laboratory practices |

**CH - Class hours:** 14 h.
**NCH - Non-class hours:** 16 h.
**TH - Total hours:** 30 h.

## CONTENTS

- Security audit overview

- Asset recoinnassance

- Asset exploitation

- Post exploitation

- Audit reports

## LEARNING RESOURCES AND BIBLIOGRAPHY

| Learning resources | Bibliography |
|---|---|
| Subject notes | http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_lnk.pl?grupo=MASTERDATUANALISIA12&ejecuta=15& |
| Topic related web quires | |
| Moodle Platform | |
| Class presentations | |
| Computer practical training | |
| Slides of the subject | |