

| | | | | PHYSICS I | | | | | |
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| | | G | ENERAL IN | FORMATION | | | | | |
| Studies | DEGREE IN INC | OUSTRIAL ORGAN | | | PHYSICS | | | | |
| | ENGINEERING | - | | | | | | | |
| Semester | | Course | 1 | Mention / Field of specialisation | | | | | |
| | BASIC TRAININ 2022 | | Face-to-face | Language | | | | | |
| Credits | | Hours/week | | | 91 class hours + | - 59 noi | n-clas | s hours | = 150 to |
| 0.000 | Ū | | 0.00 | | hours | | eide | e neure | |
| | | | 2030 AGEN | DA GOALS | | | | | |
| NT WORK AND OMIC GROWTH 9 INDUSTRY, INNOVATION | | | | | | | | | |
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| //// | Subj | ects s subjects required) | | /// | Knowle | | roquir | ed) | |
| (100 | | | LEARNING | • | | neuge I | equil | <i>cu)</i> | |
| EARNING RESU | | | LEAKINING | RESULIS | | кс | SK | AB | ECTS |
| -RA03 - To unde | rstand and maste | | s of the general | laws of mechanics, ar | | | <u>x</u> | | 5,4 |
| oplication to solv | e engineering pro | oblems | - | | | | x | | 0,36 |
| | | | | y and of gradual compl and analyzing and asse | | | ^ | | 0,30 |
| | | | | y basic, advanced and | | | | | |
| | | | | | | | | | |
| ant-garde, dem | onstrating the abi | | | ns and/or undertake fu | | | | | |
| vant-garde, dem ith a high degree -RTR2 - To expre | onstrating the abi e of autonomy ess information, id | ility to work in multion | disciplinary team nents that suppo | is and/or undertake fur rt them in an orderly, c | rther studies clear and | | x | | 0,24 |
| vant-garde, dem ith a high degree RTR2 - To expre oherent manner, | onstrating the abi e of autonomy ess information, ic orally and in writ | ility to work in multion deas and the argum ing, based on qualit | disciplinary team nents that suppo by information, so | is and/or undertake fu | rther studies clear and | | x | | 0,24 |
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4 h. 4 h. Self-assessment tests in a context of autonomous and continuous learning w **EVALUATION SYSTEM** MAKE-UP MECHANISMS 20% Reports on the completion of exercises, case studies, Individual written and/or oral tests or individual computer exercises, simulation exercises, laboratory coding/programming tests exercises, term projects, challenges and problems Individual written and/or oral tests or individual 80% coding/programming tests CH - Class hours: 27 h. NCH - Non-class hours: 18 h. TH - Total hours: 45 h.

RGO106 [!] Identifica, calcula y analiza el movimiento de partículas y sólidos, así como los sistemas de fuerza necesarios para producirlos

| LEARNING ACTIVITIES | LEARNING ACTIVITIES | | | | TH |
|---|---------------------|---|-------|-------|-------|
| Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams | | | | 6 h. | 16 h. |
| Conducting tests, giving presentations, presenting defences, taking examinations and/or doing checkpoints | | | | | 4 h. |
| Presentation by the teacher in the classroom, in participat procedures associated with the subjects | tory classe | es, of concepts and | 30 h. | | 30 h. |
| Carrying out exercises and solving problems individually and/or in teams | | | | 22 h. | 32 h. |
| Self-assessment tests in a context of autonomous and continuous learning | | | | 8 h. | 8 h. |
| EVALUATION SYSTEM W MAKE-UP MECHANIS | | | | | |
| Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory | 20% | Individual written and/or oral tests or individual coding/programming tests | | | |
| exercises, term projects, challenges and problems | | | | | |
| | 80% | | | | |

| 1RG0190 (1 sem) | | | | | | |
|--|------|-----------------|----------|---------|------|--|
| LEARNING ACTIVITIES | | СН | NCH | ТН | | |
| Development and writing of records, reports, presentations, projects/work experience/challenges/case studies/experime individually and/or in teams | | | 2 h. | 1 h. | 3 h. | |
| EVALUATION SYSTEM | W | MAKE-UP MECHANI | SMS | | | |
| Observation (technical capacity, attitude and participation) | 100% | | (No mech | anisms) | | |
| CH - Class hours: 2 h. NCH - Non-class hours: 1 h. TH - Total hours: 3 h. | | | | | | |

1RGO194 (1 sem)



Goi Eskola Politeknikoa | Mondragon Unibertsitatea Course: 2024 / 2025 - Course planning



| LEARNING ACTIVITIES OH NCH Development and writing of records, reports, presentations, audiovisual material, etc. on 2 h. 1 h. 1 h. Development and writing of records, reports, presentations, audiovisual material, etc. on 2 h. 1 h. 1 h. Presentation and defence of exercises, case studies, 100%, laboratory practical work, itemation practical work, itemation protectal work, itemation protectal work, itemation protectal work, itemation protectal work, item projects, end of degree project, master's thesis, challenges and problems MAKE-UP MECHANISMS CH - Class hours: 2 h. NCH - Non-class hours: 1 h. TH - Total hours: 3 h. ITH - Total hours: 3 h. MAKE-UP MECHANISMS I h. Development and writing of records, reports, presentations, audiovisual material, etc. on 2 h. 1 h. 1 h. projectswork experience/challenges/case studies, case studies, computer exclose, singulation exercises, laboratory exercises, simulation exercises, executed, laboratory exercises, simulation exercises, executed, laboratory exercises, simulation exercises, simulation exercises, laborator | TH 3 h. |
|---|-------------------|
| Project/work expension/challenges/case studies/experimental investigations carried out individually and/or in teams MAKE-UP MECHANISMS EVALUATION SYSTEM # 100% (No mechanisms) CH - Class hours: 2 h. NCH - Non-class hours: 1 h. H - Total hours: 3 h. MAKE-UP MECHANISMS (No mechanisms) EXRIGIDES (1 sem) EXRIGIDES (1 sem) 2 h. 1 h. EVALUATION SYSTEM # MCH EVALUATION SYSTEM # MCH EXROPTION Control (1 sem) 2 h. 1 h. EXROPTION Control (1 sem) # MCH EVALUATION SYSTEM # MCH EVALUATION SYSTEM # MCH EVALUATION SYSTEM # MCH EVALUATION SYSTEM # MAKE-UP MECHANISMS Reports on the completion of exercises, case studies/ experimental investigations carried out individually and/or in teams 100% CH - Class hours: 2 h. NCH - Non-class hours: 1 h. 100% MAKE-UP MECHANISMS EVALUATION SYSTEM # MCH Non-chanisms) IRECOTES (1 sem) 100% MAKE-UP MECHANISMS EVALUATION SYSTEM # MCH Non-chanisms) Ch - Class hours: 1 | ۱h |
| Presentation and defence of exercises, case studies, computer practical work, simulation practical work, simulation practical work, ismulation practical work, ismulation practical work, simulation problems 100% (No mechanisms) CH - Class hours: 2 h. NCH - Non-class hours: 3 h. NCH - Non-class hours: 3 h. IREGOIDS (1 sem) EARNING ACTIVITIES CH NCH Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experimence/challenges/case studies/experimental investigations carried out individually and/or in teams MAKE-UP MECHANISMS EVALUATION SYSTEM W MAKE-UP MECHANISMS Reports on the completion of exercises, laboratory exercises, simulation exercises, laboratory exercises, simulation exercises, laboratory exercises, simulation exercises, laboratory exercises, that hours: 3 h. 100% (No mechanisms) IEGOIDS (1 sem) EARNING ACTIVITIES CH NCH NCH IEGOIDS (1 sem) 2 h. 1 h. 1 h. IREGOIDS (1 sem) 2 h. 1 h. 1 h. IEGOIDS (1 sem) MAKE-UP MECHANISMS 2 h. 1 h. IEGOIDS (1 sem) 100% (No mechanisms) 1 h | , |
| computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems project, master's thesis, challenges and problems CH - Class hours: 2 h. NCH - Non-class hours: 1 h. TH - Total hours: 3 h. CH - Class hours: 2 h. NCH IRCOTES (1 sem) CH NCH LEARNING ACTIVITIES CH NCH EVALUATION SYSTEM W Reports on the completion of exercises, case studies, laboratory exercises, therm projects, challenges and problems 100% CH - Class hours: 2 h. NCH 10% CH - Class hours: 3 h. 10% EVALUATION SYSTEM W Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, therm projects, challenges and problems 10% CH - Class hours: 2 h. NCH - Non-class hours: 3 h. 10% (No mechanisms) ELERNING ACTIVITIES CH NCH NCH Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams 2h. 1h. EVALUATION SYSTEM W MAKE-UP MECHANISMS Reports on the completion of exercises, case studies, individually and/or in teams 2h. 1h. EVALUATION SYSTEM M MAKE-UP MECHANISMS | |
| NCH - Non-class hours: 1 h. TH - Total hours: 3 h. ITEGO193 (1 sem) LEARNING ACTIVITIES CH NCH Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams 2 h. 1 h. EVALUATION SYSTEM W MAKE-UP MECHANISMS Reports on the completion of exercises, case studies, normalition exercises, tabrory exercises, term projects, challenges and problems 100% (No mechanisms) CH - Class hours: 2 h. NCH - Non-class hours: 1 h. TH - Total hours: 3 h. It. NCH NCH ELEARNING ACTIVITIES CH NCH Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams 2 h. 1 h. EVALUATION SYSTEM W MAKE-UP MECHANISMS 1 h. TH - Total hours: 3 h. 1 h. 1 h. 1 h. Iterative contexts, real and/or simulated, individually and/or in teams 2 h. 1 h. EVALUATION SYSTEM W MAKE-UP MECHANISMS 1 h. Proports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory 100% (No mechanisms) <td></td> | |
| LEARNING ACTIVITIES CH NCH Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams 2 h. 1 h. EVALUATION SYSTEM W MAKE-UP MECHANISMS (No mechanisms) computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems MAKE-UP MECHANISMS (No mechanisms) CH - Class hours: 2 h. NCH - Non-class hours: 1 h. (No mechanisms) V NCH - Non-class hours: 3 h. Exercises, item projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams 2 h. 1 h. EVALUATION SYSTEM V MAKE-UP MECHANISMS 1 h. TH - Total hours: 3 h. - - 1 h. Terrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams 2 h. 1 h. EVALUATION SYSTEM V MAKE-UP MECHANISMS 1 h. EVALUATION SYSTEM V MAKE-UP MECHANISMS (No mechanisms) | |
| Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams 2 h. 1 h. EVALUATION SYSTEM W MAKE-UP MECHANISMS Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems 100% (No mechanisms) CH - Class hours: 2 h. NCH - Non-class hours: 1 h. TH - Total hours: 3 h. EEXENDING ACTIVITIES CH NCH Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams 2 h. 1 h. EVALUATION SYSTEM W MAKE-UP MECHANISMS (No mechanisms) Ch - Class hours: 2 h. NCH - Non-class hours: 1 h. 1 h. TH - Total hours: 3 h. 1 h. 1 h. ELEARNING ACTIVITIES CH NCH Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams 2 h. 1 h. EVALUATION SYSTEM W MAKE-UP MECHANISMS (No mechanisms) Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory <td></td> | |
| projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams EVALUATION SYSTEM W MAKE-UP MECHANISMS Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems 100% (No mechanisms) CH - Class hours: 2 h. NCH - Non-class hours: 1 h. TH - Total hours: 3 h. Non-class hours: 1 h. TH - Total hours: 3 h. Image: CH - Class hours: 2 h. NCH - Non-class hours: 1 h. TH - Total hours: 3 h. ELEARNING ACTIVITIES CH - Non-class hours: 2 h. NCH - Non-class hours: 1 h. TH - Total hours: 3 h. MCH - Non-class hours: 1 h. TH - Total hours: 3 h. ELEARNING ACTIVITIES CH - NCH NCH - NCH Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in 1 h. interdisciplinary contexts, real and/or simulated, individually and/or in teams 2 h. 1 h. 1 h. Interdisciplinary contexts, real and/or simulated, individually and/or in teams EVALUATION SYSTEM W MAKE-UP MECHANISMS Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory 100% | тн |
| Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, simulation exercises, laboratory exercises, term projects, challenges and problems 100% (No mechanisms) CH - Class hours: 2 h. NCH - Non-class hours: 1 h. TH - Total hours: 3 h. NCH - Non-class hours: 1 h. TH - Total hours: 3 h. Image: CH - Class hours: 2 h. NCH - Non-class hours: 1 h. TH - Total hours: 3 h. IRG0192 (1 sem) Image: CH - Class hours: 2 h. NCH - Non-class hours: 1 h. TH - Total hours: 3 h. Image: CH - Class hours: 2 h. NCH - Non-class hours: 1 h. TH - Total hours: 3 h. IRG0192 (1 sem) Image: CH - NCH | 3 h. |
| CH - Class hours: 2 h. NCH - Non-class hours: 1 h. NCH - Non-class hours: 3 h. IRG0192 (1 sem) LEARNING ACTIVITIES CH NCH NCH Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams EVALUATION SYSTEM W Reports on the completion of exercises, laboratory | |
| LEARNING ACTIVITIES CH NCH Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams 2 h. 1 h. EVALUATION SYSTEM W MAKE-UP MECHANISMS Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory 100% (No mechanisms) | |
| interdisciplinary contexts, real and/or simulated, individually and/or in teams EVALUATION SYSTEM W Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory 100% | ТН |
| EVALUATION SYSTEM W Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory 100% (No mechanisms) | 3 h. |
| Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory 100% (No mechanisms) | |
| computer exercises, simulation exercises, laboratory | |
| CH - Class hours: 2 h. NCH - Non-class hours: 1 h. TH - Total hours: 3 h. | |
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| 1RG0191 (1 sem) | |
| LEARNING ACTIVITIES CH NCH | тн |
| | 3 h. |
| EVALUATION SYSTEM W MAKE-UP MECHANISMS | |
| Self-assessment 33% (No mechanisms) | |





Co-assessment 34% Observation (technical capacity, attitude and participation)

33%

CH - Class hours: 2 h. NCH - Non-class hours: 1 h. TH - Total hours: 3 h.

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LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources

[!] Plataforma Moodle

[!] Presentaciones en clase

[!] Apuntes de la asignatura

[!] Transparencias de la asignatura

Bibliography https://katalogoa.mondragon.edu/janium-bin/sumario.pl?Id=2023091 8125147