

ASIGNATURA:	MATHEMATICS FOR ACADEMIC STUDIES 4º ESO	CURSO:	2021 / 2022	HORAS/SEM.:	4
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WHAT TO LEARN (DIDACTIC UNITS)		
1 st TERM	2 nd TERM	3 rd TERM
1. Real numbers 2. Polynomials 3. Equations and systems	4. Inequations 5. Trigonometry 6. Analytic geometry	7. Functions 8. Statistics 9. Probability 10. Areas, volumes, similarity

GOALS
<ol style="list-style-type: none"> 1. Improve the capacity for reflective thinking and incorporate forms of expression and mathematical reasoning into language and modes of argument. 2. Recognize and pose situations that can be formulated in mathematical terms, develop and use different strategies to address them and analyze the results using the most appropriate resources. 3. Quantify those aspects of reality that allow it to be better interpreted. 4. Identify the mathematical elements present in the media, the Internet, advertising or other sources of information, critically analyze the functions they perform and assess their contribution. 5. Identify the forms and spatial relationships that occur in everyday life. 6. Properly use the different technological means both to perform calculations and to search, process and represent information of a diverse nature and also as an aid in learning. 7. Solve problems using proper modes of mathematical activity. 8. Develop personal strategies for the analysis of specific situations and the identification and resolution of problems, showing confidence in their own ability to deal with them successfully and acquire an adequate level of self-esteem. 10. Integrate mathematical knowledge into the set of knowledge that is being acquired from different areas so that it can be used creatively, analytically and critically. 11. Value mathematics as an integral part of our culture and apply the mathematical competencies acquired to analyze and value social phenomena.

HOW TO LEARN (METHODOLOGY, ORGANIZATION, MATERIAL, SPECIFIC RULES...)
<p>The way to introduce and develop each didactic unit will depend on its contents, although, usually, the session will begin with the correction on the board or verbally, of the homework. Next, the new contents will be explained, starting from the students' previous knowledge and linking them, whenever possible, to daily life. Subsequently, and after the resolution of doubts, activities proposed by the teacher will be carried out, whether or not they appear in the textbook individually or in a class group.</p> <p>Students will take the diagnostic tests that the Department of Education passes annually in May. In order for students to become familiar with its format and structure, problems or problematic situations similar to those that usually appear in these tests will be worked on in class.</p> <p>Online teaching</p> <p>In case of confinement, the class schedule will be maintained. Students will have to connect to a Meet video call. During the session, the homework will be corrected and doubts will be resolved, the new content will be explained and worked on through activities. Questions may be asked at any time during the session.</p> <p>The textbook is Mathematics for Academic Studies from Anaya.</p>

EVALUATION TOOLS

- 1. Exams:** throughout each term there will be several exams (of 1 or 2 units) notified in advance. The last one will be a global exam that, in addition to the last unit content, will include content from previous units.
- 2. Attitude:** Different aspects will be evaluated such as punctuality, attitude at the beginning and end of class and attitude towards explanations and the work required in class.
- 3. Work:** The responsibility in carrying out the daily task in the notebook will be valued, which must be well presented and ordered and the compulsory tasks proposed by the teacher will be evaluated.

Online teaching

1. Attendance at the session (connection via Meet) and active participation in it.
2. Carrying out the activities proposed in the session and the tasks.
3. Tests or exams. At the end of each unit the students will take an exam. The format of this exam may vary at the discretion of the teacher: Google forms, exams uploaded to the classroom, oral exam ... The date and format of the exam will be communicated to the students in advance. The last exam of each term will not be global.

MARKING CRITERIA

THE MARK OF EACH TERM WILL BE CALCULATED CONSIDERING THE FOLLOWING PERCENTAGES

TESTS	COURSE WORKS	ATTITUDE
85 %	10 %	5 %

Exam correction criteria

It will be valued:

- The correction in the approaches.
- The knowledge and correct use of the formulas and concepts involved.
- The clarity of the explanations of the steps followed. - The interpretation of the results obtained.
- Explanation of the solution within the context of the statement, as well as the disposable solutions, if any. - Calculation errors that do not reflect conceptual flaws or substantial simplifications of the problem will have a 20% penalty and 100% if it occurs repeatedly.
- The indication of final results will not be scored if the procedure used to obtain them does not appear.
- In a question with several chained sections, a mistake made in one will not penalize the scoring of the following, if they are raised and resolved correctly based on the data from previous sections.
- Concept errors are penalized 100%.
- Rigor is required in the language and notation of Mathematics. In any case, this language may be precisely substituted in English.

Only blue or black pens may be used in the exams.

Mark of each term

The final mark for each term, NEV, will be obtained using the formula:

$$NEV = 0,85 NE + 0.1 NT + 0,05 NA$$

with NE being the weighted average mark of the exams of the different units and the Global exam, which will be double weighted, NT the mark of the different activities, classwork and homework and NA the attitude.

Course rating and evaluation

The complete development of the course consists of 3 terms:

- If, once the corresponding retests have been made, the three terms are passed, the entire course is passed and the final mark will be the arithmetic mean of the marks obtained in each of the three terms.
- If, after the retest, one of the terms is failed with a mark equal to or greater than 3, but the average mark for the course is 5 or higher, the entire course is passed and the final mark will be this average mark.

Online teaching

The final mark of the term will be calculated giving a weight of 60% to the exams and 40% to the daily work, tasks and attitude of the student towards the subject.

Regarding the final mark for the course, the percentages of contribution of each of the terms to the final mark for the course could be modified depending on the epidemiological situation at each moment.

The mathematics department has established a series of mandatory rules for conducting online exams. Likewise, it has developed an action protocol to follow when fraudulent actions are suspected in these exams. Both documents will be posted in the Classroom of the class.

RETEST

Retest of a term:

At the end of each term, a retest will be carried out for those students who have failed it. The term is passed if the mark of this exam is 5 or higher.

To calculate the final mark of the term, a weighted average will be made of the initial mark of the term and the retest exam, this retest exam being double weighted in the average.

- If the mark obtained by this procedure is equal to or greater than 7,5, the final mark of the term will be 6.
- In any other case and as long as the mark of the retest is 5 or higher, the final mark of the term will be 5.

Retest of the school year at first call:

- Once the retests have been made, if one of the terms has a mark lower than 3, the marks will not be averaged and a final exam to retest the failed term will be carried out. The mark for the failed term will be the one obtained in this exam. If the mark obtained after the exam is less than 3, the entire subject will have to be retested, except in exceptional cases, during the extraordinary call. If the mark obtained after the exam is 5 or higher, the final mark will be the arithmetic mean of the marks obtained in each of the three terms. If the arithmetic mean is lower than 5, the student will take the extraordinary final exam.
- If there are two or three failed terms, the student will take a final global exam in June. If the mark obtained in this exam is equal to or greater than 7.5, the final mark for the course will be 6. In any other case and provided that the mark for the test is 5 or higher, the final mark for the course will be 5. If it fails, it will go to the extraordinary call.

Extraordinary retest

The students who must present themselves to this call will do so with all the contents of the course. If the mark obtained is equal to or greater than 7.5, the final mark for the course will be 6. In any other case and provided that the mark for the extraordinary test is 5 or greater, the final mark for the course will be 5.

Online teaching

The guidelines followed in the retest sections will be the same as those indicated for the face-to-face course.

SETTING MARKS TO NATURAL NUMBERS

The mark for each term and the end of the course will be adjusted to the natural numbers: if the mark is passed and exceeds five tenths, the mark will be raised to the higher natural number; The same will be done in the case of failing except in the interval $[4, 5)$. This rise is conditional on the delivery of the works and tasks that have been requested throughout the term. **Rounding will be done as long as the work and attitude sections are approved.** In any case, the mark of each term for the calculation of the final mark will be the mark before the adjustment.

ACTION PROTOCOLS

In the absence of a student on the date of an exam, previously announced.

If a student cannot attend or does not attend an exam, the only way to have the possibility of taking it at another time will be by presenting to the teacher a medical certificate or by contacting of the parents or guardians directly, to explain the situation.

In any case, it will be the teacher who, considering the situation, decides whether the absence is justified or not. In case that it is considered justified, the exam will be retaken, for that student, under the conditions, date and time decided by the teacher.

In case that there were no supporting documents, the mark would be 0 and, from there, the ordinary marking criteria will be applied.

In case of confinement, the student will take the exam in person upon his/her return to the center, on the date and conditions decided by the teacher. If, due to this circumstance, he/she missed the overall assessment exam, he/she would also do it on the return and the final mark of this marking would be calculated once the exam was completed.

Faced with the discovery of a student in a fraudulent situation.

If a student, in an exam, is discovered in a fraudulent situation (copying or allowing himself to be copied) or if this is sufficiently demonstrated later, the grade in that exam will be 0. From there, the ordinary marking criteria will be applied.

Likewise, if a student carries an electronic device that raises certain doubts about its use in an exam, they must deliver it to the teacher, if required to do so. If they do not do so, the exam will be canceled with a mark of 0. From there, the ordinary marking criteria will be applied.

When solving the exercises or questions in an exam, the student must use the procedures or steps followed in the book or explained by the teacher. The exam will be automatically canceled if it is certain that the student has copied the resolution procedures provided by any mathematical application available on the web.