

Degree programme	Type	Course
Accounting and Finances	OP	4

Contact lecturer

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Prerequisites

There are no prerequisites

Group languages

You can consult this information at the [end](#) of the document.

Objectives

[Get to know the characteristics of the different fixed income activities, especially those related to price fixing.](#)

[Know the different risks that can affect the performance that can be obtained with this type of activity, with special emphasis on the fact that it makes changes in the temporal structure of the type of interest.](#)

[Demonstrate that I know how to correctly assess this risk and consequently manage a fixed income asset portfolio.](#)

Learning outcomes

- CM16 (Critically analyse the principles, values and procedures governing the practice of the profession.) Critically analyse the principles, values and procedures governing the practice of the profession.
- CM18 (Quantify the APR of each of the analysed operations and the effective cost including expenses not considered by the Bank of Spain to calculate the APR.) Quantify the APR of each of the analysed operations and the effective cost including expenses not considered by the Bank of Spain to calculate the APR.
- CM19 (Quantify the new amounts to be paid in a financial operation with variable interest when there is an unforeseen change in interest types.) Quantify the new amounts to be paid in a financial operation with variable interest when there is an unforeseen change in interest types.
- SM12 (Name the formation of prices and premiums for risk in financial markets.) Name the formation of prices and premiums for risk in financial markets.

Contents

1. Review of Valuation Methods I Review of the basic principles of Valuation Methods I for Methods II. Simple and compound interest. Constant financial annuities. Present value and future value. Applications and useful examples for Fixed Income Assets. 2. Fixed Income Assets Characteristics of fixed income assets, money market assets, capital market assets. Return on treasury bills and bonds. Characteristics of bonds compared to other financial assets. Ways to issue bonds. The relationship between bond prices and interest rates.

Calculation of accrued interest and ex-coupon price. The IRR and the problems it presents. Transactions with repurchase agreements: holding period. Strippable bonds, characteristics of bonds obtained by stripping. Zero-coupon bonds, their usefulness. Convertible bonds, early redemption, floating-rate bonds. 3. Risks of Financial Assets Classification of the risks of financial assets. Bond Valuation Theorems, Interest Rate Risk. Duration as a measure of interest rate risk. Variables affecting duration. Properties of duration. Sensitivity and duration, modified duration. Limitations of the duration concept. Convexity, properties. Effective duration. Reinvestment risk. 4. Term Structure of Interest Rates Interest rates and maturities. Zero-coupon bond yield curve. Implied forward interest rates. Internal rate of return or return to maturity. Relationship between the zero-coupon curve and the yield curve. Analysis of different types of term structure, advantages of understanding them, and applications. 5. Fixed Income Portfolio Management Duration of a fixed income portfolio. The passive management process. Portfolio indexing. Immunization. Contingent immunization. Cash flow allocation or matching. The active management process. Horizon analysis. Interest rate expectations. Expectations regarding the yield curve and its spreads. Individual expectations regarding financial assets. Evaluation of the results obtained in the management of a fixed-income portfolio.

Learning activities and methodology

Title	Hours	ECTS	Learning outcomes
study	30	1.2	CM18, CM19, SM12
tutoring	20.5	0.82	CM18, CM19
practices	17	0.68	CM16, CM18, CM19, SM12
theory	32.5	1.3	CM16, CM18, CM19, SM12
exercises	46.5	1.86	CM18, CM19, SM12

The activities that will allow students to achieve the correct objectives of the course will be:

1. Theoretical classes where teachers will develop the main concepts

The objective of this activity is to present the most important concepts of the subject, the necessary basic demonstrations and the aspects where more errors are usually made in the application of the theoretical concepts.

2. Practical classes

The teacher will present practical problems that will be solved together, emphasizing the usual errors that the students comment on.

3. Problem solving by students

Each topic will be associated with a list of problems that will be solved individually. It serves to assimilate the theoretical concepts exposed in class and acquire skill in solving practical cases individually.

The resolution of these problems will be discussed periodically in the practical classes

4. Practical activities in the classroom

In order to better guide students about their evolution, practices will be periodically carried out in the classroom that will be corrected later. These practices will take as reference the lists of problems cited in 3

5. Test type

Often it is necessary to acquire ease of calculation and precision in the numerical results, therefore sometimes short activities with multiple solutions (test type) will be programmed to acquire these skills.

6. Resolution of cases by the students

A real life assumption is often more complex than a test practice or questionnaire since it interrelates several concepts of different topics. Towards the end of the course, some assumptions will be solved jointly in class based on the available times. The last evaluation test will be the resolution of a case individually.

7. Face-to-face tutorials

The student has a few hours where the teachers of the subject solve their theoretical and practical doubts in person.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

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Assessment

Continuous assessment activities

Title	Weight	Hours	ECTS	Learning outcomes
final test	50%	2	0.08	CM16, CM18, CM19, SM12
getting a job	24%	0	0	CM16, CM18, CM19, SM12
first test	26%	1.5	0.06	CM16, CM18, CM19, SM12

In no case can the Artificial Intelligence be used in the evaluations

An evaluative activity that will include topics 1 and 2 and 3 and that must be answered without consulting any material. The maximum resolution time will be 60 minutes. (26% of the grade)

4 test type tests that will be notified in sufficient time.

It will not be possible to consult material, it will not release matter. (global weight of 24%)

An individual written test that includes all the subject matter of the course, on the date foreseen in the calendar of the Faculty, which must be answered without any material. The maximum resolution time will be 120 minutes. (50% of the grade)

The final evaluation grade is a weighted average of the marks of the different tests being the coefficient side weighting the above indicated. The subject is passed with a grade equal to or greater than 5.

For those students who in the evaluation have obtained a grade that is equal to or greater than 3.5 and less than 5 there will be a re-evaluation. At the time of publishing the final grades, the modality of lamateixa will be announced. This re-evaluation will be scheduled in the exam calendar of the Faculty. The student who presents and passes it will pass the subject with a grade of 5. Otherwise it will keep the same note.

A student is considered to be "Not evaluable" in the subject as long as he/she has not participated in any of the evaluation activities. Therefore, it is considered that a student who performs some component of continuous evaluation can no longer opt for a "Not Evaluable"

Calendar of assessment activities

The dates of the different evaluation tests (partial exams, classroom exercises, assignments, ...) will be announced well in advance during the semester.

The date of the final exam of the subject is scheduled in the calendar of exams of the Faculty.

"The programming of the evaluation tests cannot be modified, unless there is an exceptional and duly justified reason why an evaluation act cannot be carried out. In this case, the persons responsible for the degrees, after consulting the teaching staff and the affected students, will propose a new program within the corresponding academic period. Calendar of assessment activities (UAB Academic Regulations)

Students of the Faculty of Economics and Business who, according to the previous paragraph, need to change an evaluation date must submit the request by filling in the document Request for reprogramming test <https://eformularis.uab.cat/group/deganat/feie/reprogramming-tests>

Procedure for reviewing grades

Coinciding with the final exam, the day and means in which the final grades will be published will be announced. In the same way, the procedure, place, date and time of the review of exams will be informed in accordance with the regulations of the University.

Recovery process

"To participate in the recovery process, students must have been previously evaluated in a set of activities that represent a minimum of two thirds of the total grade of the subject or module." The recovery (UAB Academic Regulations). Students must have obtained an average grade of the subject between 3.5 and 4.9.

The date of this test will be scheduled in the exam calendar of the Faculty. The student who presents and passes it will pass the subject with a grade of 5. Otherwise it will keep the same note.

Irregularities in evaluation acts

Without prejudice to other disciplinary measures deemed appropriate, and in accordance with current academic regulations, "in the event that the student makes any irregularity that may lead to a significant variation in the grade of an evaluation act, this evaluation act will be graded with 0, regardless of the disciplinary process that may be instructed. In the event of several irregularities in the evaluation acts of the same subject, the final grade of this subject will be 0". Paragraph 10 of Article 116. Results of the evaluation. (UAB Academic Regulations)

This subject does not include the single assessment system.

The completion of assessment activities is subject to the provisions set out in this course guide and in the "[Policy of the School of Economics and Business on the Detection of Irregularities during Assessment Activities](#)", which regulates the conditions under which assessment tasks are conducted and the procedures applicable in cases where indications of irregularities are detected. Students are encouraged to consult the policy.

Bibliography

Bierwag, Gerald. O. (1991). "Anàlisis de la Duración. La Gestión del riesgo de tipo de interés". Alianza Economía y Finanzas.

Fabozzi, Frank J. & T.Dessa Fabozzi. (1989). "Bond Markets, Analysis and Strategies" Prentice Hall International

Mascareñas Pérez-Iñigo, Juan. (2002). "Gestión de Activos Financieros de Renta Fija" Pirámide

Mauleón, Ignacio. (1991). "Inversiones y Riesgos Financieros". Espasa Calpe.

Navarro, E. i Juan M. Nave. (2001). "Fundamentos de Matemàtiques Financieras" Bosch Editos.

Software

Excel sheet

Course groups and languages

The information provided is provisional until November 30. After this date, you will be able to consult the language of each group through this [link](#). To access the information, you will need to enter the course CODE

Type of teaching	Group	Language	Semester	Shift
(TE) Theory	10	Catalan	first semester	morning-mixed
(PAUL) Classroom practices	101	Catalan	first semester	morning-mixed