COMILLAS
UNIVERSIDAD PONTIFICIA

Admissions Tests

Comillas Pontifical University
Academic Year 2027–2028
"Ad Maiora, Ad Meliora"

ICADE | CHS | ICAI | MACC | INEA

ICADE: Faculty of Law and Faculty of Economics and Business Administration
CHS: Faculty of Humanities and Social Sciences
ICAI: Higher Technical School of Engineering
MACC: Madrid Culinary Campus
INEA: School of Agricultural and Environmental Engineering

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COMILLAS
UNIVERSIDAD PONTIFICIA

The admissions process

The admissions process differs depending on whether the applicant is an international student.
An INTERNATIONAL STUDENT is defined as someone completing the final year of upper-secondary education abroad.

INTERNATIONAL TEST ROUTE

International applicants may choose one of the following options(*):

1. Take international admissions tests based on the SAT or PAA. These may be taken throughout the academic year.

2. Take Comillas' admissions tests online on the scheduled dates.

3. Take Comillas' admissions tests in person on the specified dates.

(*) Once an option has been chosen, it cannot be changed or repeated.

COMILLAS TEST ROUTE

Applicants who are not international students must take Comillas' tests, which are held:

1. In person.

2. At the University's venues at the Alberto Aguilera Campus or at the Cantoblanco Campus or some other locations outside Madrid.

The application

1 Go to the University website

- Create a username and password.
- They are permanente and give you access "My Admission", the portal where the University post all its communications.

2 Complete the application

- Choose up to five programmes, in order of preference.
- Choose the language (ICADE programmes only).
- Choose a test date.
- Choose a test venue.
- Indicate whether you wish to apply for a Scholarship beca.
- Indicate whether you require reasonable adjustments. adaptación

3 In the web portal

- Pay the application fee (€85).
- Upload your national identity card or passport.
- Upload your academic transcripts for Years 3rd and 4th of Compulsory Secondary Education (ESO) and Year 1st of Bachillerato (Or the equivalent ones in other educational systems).
- English-language certificate (optional.
- Disability certificate, if applicable.
- Sign, finalise and upload the documents.

4 Once everything has been submitted

- The General Secretariat will review the application:
- If everything is in order, it will be APPROVED. No further action is required.
- If anything is missing or incorrect, you will be contacted.
- I you have any doubt about paperworks, write: admisionessgat@comillas.edu

5 Communications

- All letters and communications are posted on the portal, which you can access using your username and password under “My Admission”.
- Test admission letters are sent during the week in which the tests take place.
- Results are notified by SMS and email, and the admission letter is posted on the portal.

6 After the results

- If you are admitted following the 30 January tests, you must RESERVE YOUR PLACE by paying a deposit. The admission letter states the payment amount and deadline.
- If you are admitted following the 8 May tests, no place reservation is required. The admission letter states the enrolment period.
- Results will notice always 20 days after the date of exams.

Please remember ...

Regarding the date on which the tests are taken

- ✓ The date you choose makes no difference.
- ✓ Neither date offers an advantage nor increases your chances.
- ✓ For each date, the proportion of places allocated corresponds to the proportion of applicants sitting the tests on that date, relative to the total number of applicants.

Complete the application

- ✓ Select only the programmes you would be willing to enrol in.
- ✓ The specified order of priority is very important when allocating places.
- ✓ A summary of your selections will be displayed at the end of the process.
- ✓ Your choices can be changed while the portal remains open.

In the portal

- ✓ Accepted English-language certificates: TOEFL iBT, CAMBRIDGE o IELTS issued in 2025, 2026 up March 3th 2027.
- ✓ If you apply for a Psychology degree you can upload your enrolement certificate showing your Tear 2nd Bachillerato.
- ✓ If you apply for CAFYDE, remember to tick the sworn health declaration.

Need help?

If you have any questions or problems, please contact us in https://www.comillas.edu/miadmision/

or our Admissions Coordinators:

ICADE - BUSINESS	ICADE - LAW	CHS	ICAI	MACC	INEA
Gloria Martín Francisco de Asís de Ribera	Mª Ángeles Bengoechea	Rosalía Mota	Santiago Canales	Marta Carromero	Juan Luis Fradejas
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The tests

Admissions tests for undergraduate degrees include a common set of tests and specific tests tailored to the characteristics of each degree's professional profile and curriculum. The tests aim to assess the applicant's suitability in terms of the personal skills and competencies required to succeed in the chosen programme, as well as the alignment between the applicant's vocation, motivations and interests and the degree programme for which admission is sought.

Although the tests are common across programmes:

- Not all programmes require every test, although some tests are compulsory for all applicants.
- Applicants must take ALL tests required by the programmes included in their application, regardless of the order in which they are listed.

Results are weighted differently depending on the degree programmes selected. The weightings are shown below.

All tests contribute to the assessment of the applicant's knowledge, preparation and abilities; therefore, all are taken into account when calculating the final admission score.

Some organisations and individuals offer preparation courses for the admissions tests. None of them is supported or endorsed by the University; they operate independently, and the University does not recommend any of them.

A brief description of each test is provided below.

Each applicant will take a subset of these tests, depending on the programmes applied for.

Instructions for test day

On the day of the tests applicants must:

- ❑ Arrive on time. The schedule is provided in the test invitation letter, which is sent during the week of the tests and must be downloaded from the portal.
- ❑ Prove your identity with an official document, such as a national identity card, passport or driving licence.
- ❑ Bring a pencil, eraser and pencil sharpener.
- ❑ Bring the test invitation letter. University communications to applicants will first be sent by SMS, with the full message available to download from the portal.
- ❑ The test invitation letter must be downloaded from the portal. It includes the applicant's name and application number, the test venue, date and time, and the room where the applicant must report and will find their named examination paper.
- ❑ The test invitation letter may be brought in printed or digital format. It is sent during the same week as the tests.
- ❑ Follow the instructions given by the staff assigned to the examination room.

Dates and locations where the tests are taken

TEST DATES	APPLICATION PERIOD FROM 1 OCTOBER	LOCATIONS OF THE TESTS	DEGREE PROGRAMMES	FORMAT
January 30th	Until January 13th	MADRID, VALLADOLID, OVIEDO, MÁLAGA, VALENCIA and PALMA DE MALLORCA	All	IN PERSON ONLINE
May 8th	Until April 14th	MADRID, VALLADOLID, VIGO, SANTANDER, ALICANTE, ZARAGOZA, TENERIFE and SEVILLA	All	IN PERSON ONLINE
April 2nd	Until March 29th	MADRID, VALLADOLID	CHS: except for Psychology MACC: Bachelor's Degree in Gastronomy and Culinary Innovation INEA: Bachelor's Degree in Agricultural and Agro-Environmental Engineering	IN PERSON ONLINE
June 18th	Until June 11th	MADRID, VALLADOLID	CHS: except for Psicology MACC: Bachelor's Degree in Gastronomy and Culinary Innovation INEA: Bachelor's Degree in Agricultural and Agro-Environmental Engineering	IN PERSON ONLINE
July 14th	Until July 11th	MADRID, VALLADOLID	CHS: except for Psychology MACC: Bachelor's Degree in Gastronomy and Culinary Innovation INEA: Bachelor's Degree in Agricultural and Agro-Environmental Engineering	IN PERSON ONLINE

Test overview

PS Aptitude test

- Taken for all applicants.
- It has three sections:
  1. Abstract reasoning
  2. Spatial reasoning
  3. Verbal reasoning

PS Aptitude test for Psychology

- Taken by Psychology applicants
- Aptitude assessment.

EN English

- Written English proficiency test.
- Multiple-choice questions.
- Taken for all applicants.

MA Mathematics

- Taken by applicants to programmes in ICADE, de ICAI, PSICOADE, E2+GASTRO y Double Degree of INEA.
- May be taken in English (ICADE degrees only).
- It consists of:
  - Section 1: 10 general questions
  - Section 2: 8 pairs of questions to choose only one of the pair.
  - Section 3: 5 questions only for ICAI applicants

LA Other languages

- Applicants to E4 sub-programmes in French and/or German must take:
  1. A written test.
  2. An online oral test, held during the academic year

PH Physics

- Taken by applicants who include an ICAI programme in their application.

SP Spanish

- Only for applicants to ICADE who wish to take the tests in English.
- It's a Spanish proficiency test.
- It consists of questions on two tests in Spanish.

IN Interview

- Taken for applicants to CHS (except for Psychology Section) MACC e INEA programmes.
- International Relations Applicants are interviewed in English.

KN General knowledge

- Taken by applicants to ICADE, CHS, E2 + Gastro. And INEA double degree
- Includes questions on general knowledge and current political and economic affairs.
- May be taken in English (ICADE degrees only) and applicants whose first choice is International Relations.

MO Motivation statement

- Written by applicants to CHS (except for Psychology) and MACC programs.
- Applicants to International Relations will take in English.

Other cases

Some tests have specific requirements that do not apply to all applicants

01 Written tests taken in English

- If International Relations is your first choice, the general knowledge test will be in English.

- If one of your choices is an ICADE degree, you may choose to take the general knowledge and mathematics tests in English.

- This option must be selected in the application.

- This does not increase or decrease the score you can obtain.

02 Oral English test

- If you apply for E2 in English, E4 (English-language sub-programmes) and/or E8 and do not submit a language certificate at B2 level or above, you must take an oral test.
- If you have a certificate, its level will be converted into a score (see equivalence table).
- This test will be held online, regardless of the applicant's location. It lasts 10 minutes.
- Tests will take place on Friday afternoons from November to April.
- It's necesary to choose the day to take it in the application.

Overview of the types of tests to be performed depending on the requested grade

Red means the test is not required. Green means it is required. Orange means it may or may not be required, depending on the circumstances.

	PHYSICS	MATHS	KNOWLEDGE	WRITTEN ENGLISH	APTITUDE TEST	WRITTEN FENCHO OR GERMANY	SPANISH	LANGUAGE ORAL TESTS	APTITUDE TEST FOR PSICOLOGY	INTERVIEW AND MOTIVATION STATEMENT
E1+E3+E3B+E5+ E5 FIPE										
E2+E2A+E6										
E2 ENGLISH + E8										
E4										
EDUCATION AND CAFYDE										
PHILOSOPHY AND FIPE										
SOCIAL WORK										
PSYCOLOGY										
PSYCOCRIMI										
PSYCOADE										
TLIA										
RRIICOM+RRII+ +GLOBALCOM										
GITI										
GITT										
IMAT										
GIT+ADE										
GITT+BA										
BIOMÉDICAL ENGINEERING										
GASTRONOMY										
E2+GASTRONOMY										
AGRÍCULTURE										
AGRÍCULTURE+ADE										

International Tests

- This option is available only to international applicants, i.e. those who are studying their final year of upper-secondary education abroad.
- Tests administered by international organisations and used for admission to universities worldwide are considered equivalent to the University's tests.
- The international test result replaces the "tests" component of the admission score, with the weighting of each programme.
- The remainder is the academic record for Years 3 and 4 of ESO and Year 1 of Bachillerato (or the equivalent years in other education systems), with the same weighting as for all other applicants
- Applicants who choose this route cannot switch to the Comillas test route.
- Applicants to Psychology degrees must take a specific psychometric test online.
- For other CHS degrees, an online personal interview is also required.

EACH APPLICANT MAY CHOOSE ONLY ONE ADMISSIONS ROUTE AND TEST DATE

Accepted international tests

SAT (Scholastic Assessment Test)

- This is a standardised test used for admission in northamericans colleges.
- However, because of its content, it is accepted as a substitute for our standard tests.
- It assesses:
  - READING
  - WRITING AND LANGUAGE: grammar, language usage and the ability to organise ideas
  - MATHEMATICS: includes algebra, geometry, trigonometry, problem-solving and data analysis.
- The perfect result worth 1600 points, and after it Will be translate to the Spanish 0–10 grading scale.
- It is offered seven times a year, in August, October, November, December, March, May and June, and may be taken an unlimited number of times.
- Results are available within three weeks, and the testing organisation will send the results to the University.
- In case of doubt, the University may take into account how many times the applicant has sat the test and may require an additional test at a later date.
- Our College Board institution code (DI code) for sending your scores is 12802.

PAA (Prueba de Aptitud Académica)

- This test is widely used in several Latin American countries (Mexico, Puerto Rico and others) and at universities in the United States that offer programmes in Spanish.
- Developed by College Board Latin America, the PAA is similar in format to the SAT.
- It assesses mathematical skills, critical reading and writing in Spanish.
- The PAA is probably the closest Spanish-language alternative to the SAT, with a very similar structure and format.

INTERNATIONAL TESTS DATES	
SCORE SUBMISSION DEADLINE	RESULTS RELEASE
02/11/2026	13/11/2026
01/12/2026	11/12/2026
04/01/2027	18/01/2027
01/02/2027	12/02/2027
01/03/2027	12/03/2027
01/04/2027	12/04/2027
03/05/2027	14/05/2027
03/06/2027	14/06/2027
01/07/2027	12/07/2027

Languages

Applicants may submit an English-language certificate. The certificates listed in the table are accepted and their grades are converted according to the following scale. A certificate at B2 level or above exempts applicants to E2 in English, E4 (English-language sub-programmes) and E8 from the oral test.
All candidates must take the written English test.

LEVEL	CAMBRIDGE	TOEFL iBT	IELTS	SCORE
C2	Proficiency 200-300	115-120	9	10
C1.2	Advanced 190-199	110-114	8	9
C1.1	Advanced 180-189	105-109	7 o 7.5	8
B2	First 160-179	94-104	5.5 o 6 -6.5	7
B1.2	Preliminary 150-159	79-93	4.5 o 5	5
B1.1	Preliminary 140-149	60-78	4	4
A2	Key 120-139			2

Certificates are not accepted for French or German. Applicants to E4 French- and German-language sub-programmes must take written and oral tests in these languages.

TEST RESULTS. WEIGHTINGS. ADMISSION SCORE

- The University does not set a cut-off score in advance; it is determined each year.
- The academic record and test scores are combined to calculate an average.
- Applicants are ranked according to their average and the preferences they selected, and offers are made to the highest-ranked applicants on each list, according to the number of places available on each programme.
- The cut-off score is that of the last admitted applicant on each list, so it varies from year to year.

How the admission score is calculated

- All subjects that the school considers eligible for inclusion in the student's academic record are included.
- A weighted average is calculated:

$$\bar{X}(ICADE) = \frac{(3º \times 1)+(4º x2\ )+(1º\ x3)}{6}$$

$$\bar{X}(ICAI) = \frac{(3º x1)+(4º x1{,}5\ )+(1º\ x2)}{4{,}5}$$

$$\bar{X}(Relaciones) = \frac{(3º x1)+(4º x3\ )+(1º\ x6)}{10}$$

All other programmes of CHS use ICADE formula.

Weight of each component

ICADE programmes:
50% academic record + 50% tests.

ICAI programmes:
35% academic record + 65% tests.

Psychology:
80% academic record + 20% tests.

PSICOCRIMI:
52% academic record+48% tests.

Psychology + ADE:
80% academic record + 20% tests.

Gastronomy:
60% academic record + 40 % tests.

E2+Gastronomy:
50% academic record + 50% tests.

International Relations and Global Communication:
50% academic record + 50% tests.

TLIA:
50% academic record + 50% tests.

Education and CAFYDE:
30% academic record +70% tests.

Social Work:
35% academic record + 65% tests.

Philosophy and FIPE:
50% academic record + 50% tests.

INEA:
50% academic record + 50% tests.

Test weightings I. ICADE

The weighting of each test is shown below, according to the degree programme applied for.

	General knowledge	Mathematics	Aptitude test	English	French	German	Spanish	Academic record	Total
ICADE (Law) (tests in Spanish)									
E1	0.20	0.10	0.10	0.10				0.50	1.00
E3	0.15	0.20	0.10	0.05				0.50	1.00
E3 Analytics	0.15	0.25	0.05	0.05				0.50	1.00
E5	0.20	0.10	0.10	0.10				0.50	1.00
E5-FIPE	0.20	0.10	0.10	0.10				0.50	1.00
ICADE (Law) (tests in English.)									
E1	0.20	0.10	0.10	0.05			0.05	0.50	1.00
E3	0.15	0.20	0.10	0.025			0.025	0.50	1.00
E3 Analytics	0.15	0.20	0.10	0.025			0.025	0.50	1.00
E5	0.20	0.10	0.10	0.05			0.05	0.50	1.00
E5-FIPE	0.20	0.10	0.10	0.05			0.05	0.50	1.00
ICADE (Business) (tests In Spanish)									
E2 Spanish	0.10	0.20	0.10	0.10				0.50	1.00
E2 in English.	0.10	0.20	0.10	0.10				0.50	1.00
E2 Analytics	0.10	0.25	0.10	0.05				0.50	1.00
E4 (British, Irish or American)	0.10	0.20	0.10	0.10				0.50	1.00
E4 (German)	0.10	0.20	0.10	0.05		0.05		0.50	1.00
E4 (French)	0.10	0.20	0.10	0.05	0.05			0.50	1.00
E6	0.10	0.20	0.10	0.10				0.50	1.00
E8	0.10	0.25	0.10	0.05				0.50	1.00
ICADE (Business) (tests in English)									
E2 in Spanish	0.10	0.20	0.10	0.05			0.05	0.50	1.00
E2 in English.	0.10	0.20	0.10	0.05			0.05	0.50	1.00
E2 Analytics	0.10	0.25	0.10	0.00			0.05	0.50	1.00
E4 (British, Irish or American)	0.10	0.20	0.10	0.05			0.05	0.50	1.00
E4 (German)	0.10	0.20	0.10	0.00		0.05	0.05	0.50	1.00
E4 (French)	0.10	0.20	0.10	0.00	0.05		0.05	0.50	1.00
E6	0.10	0.20	0.10	0.05			0.05	0.50	1.00
E8	0.10	0.25	0.10	0.00			0.05	0.50	1.00

Test weightings II. CHS

The weighting of each test is shown below, according to the degree programme applied for.

	General knowledge	Mathematics	Aptitude test	Aptitude test for Psychology	English	Interview personal	Statement in English.	Statement	Interview in English.	Academic record	**Total**
CHS											
Education y CAFYDE	0.01		0.02		0.30	0.30		0.07		0.30	1.00
Philosophy and FIPE	0.01		0.02		0.02	0.30		0.15		0.50	1.00
Social Work	0.01		0.02		0.02	0.35		0.10		0.50	1.00
Psychology	0.01			0.19						0.80	1.00
PsycoCrimi	0.01			0.45	0.02					0.52	1.00
PsycoADE	0.01	0.02	0.02	0.15						0.80	1.00
TLIA	0.01		0.10		0.20		0.15		0.04	0.50	1.00
RIICOM, Relations, Global	0.15		0.05		0.05		0.15		0.10	0.50	1.00

Test weightings III. ICAI

The weighting of each test is shown below, according to the degree programme applied for.

	Mathematics	Physics	Aptitude test	English	Academic record	Total
ICAI						
Industrial Engineering	0.25	0.25	0.10	0.05	0.35	1.00
Iindustrial Engineering+ADE	0.25	0.25	0.10	0.05	0.35	1.00
Telecomunications engineering	0.25	0.25	0.10	0.05	0.35	1.00
Telecomunications Engineering+Business Analytics	0.25	0.25	0.10	0.05	0.35	1.00
Mathematics Engineering	0.30	0.20	0.10	0.05	0.35	1.00
Biomédical Engineering	0.25	0.25	0.10	0.05	0.35	1.00

Test weightings IV. MACC E INEA

The weighting of each test is shown below, according to the degree programme applied for.

	General knowledge	Mathematics	Aptitude test	English	Interview personal	Academic record	Total
MACC							
Gastronomy			0.20	0.10	0.10	0.60	1.00
E2+Gastronomy	0.05	0.18	0.10	0.08	0.10	0.50	1.00
INEA							
Agricultural and Environmental Engineering			0.05	0.05	0.40	0.50	1.00
Agricultural and Environmental Engineering and E2	0.10	0.20	0.10	0.10		0.50	1.00

Final reminders

01 Submitting your application

- Registration for the tests will be available through the University website FROM OCTOBER 1st 2026 until APRIL14th 2027.
- Do not leave your application until the last day, as time is needed to collect the documents required for the applicant's academic record.
- For later test dates for Education, CAFYDE, Philosophy, FIPE, Social Work, TLIA, International Relations, Global Communication, MACC (Gastronomy) and INEA (Agricultural Engineering the final test date will be July 14th, and you may register until July11th.

02 Information

- From October until the application deadline, an online information session on the admissions tests is held on several Tuesdays.
- You must register in advance on the website www.comillas.edu
- These sessions take place in the afternoon, starting at 5:30 p.m. (Madrid time)

03 Changes and waiting lists

- Some programmes have a short waiting list.
- Some applicants may request a change to their admission outcome; this will depend on their score and whether a place becomes available.
- Waiting-list decisions and possible changes are resolved in LATE JUNE or EARLY JULY, after the enrolment period has been closed, depending on places available because admitted applicants ultimately decide not to pursue their studies at the University.

ANEXO I
UNIVERSITY DEGREE PROGRAMMES

University degree programmes

ICADE

PROGRAMMES OFFERED BY THE FACULTIES OF LAW AND BUSINESS AND ECONOMICS (Comillas ICADE)

E-1 Joint Global Program: Bachelor's Degree in Law + LLM International.

E-2 Bachelor's Degree in Business Administration and Management in two options:

Bilingual: Spanish and English (25% to 50%).

Fully in English (100%).

E-2 + Analytics: Dual Degree in Business Administration and Management and Business Analytics.

E-3: Dual Degree in Business Administration and Management and Law.

E-3 Analytics: Dual Degree in Business Analytics and Law.

E-4: Bachelor's Degree in Business Administration and Management with an International Double Title .

E-5: Dual Degree in Law and International Relations.

E-5 FIPE: Dual Degree in Law and Philosophy, Politics and Economics.

E-6: Dual Degree in Business Administration and Management and International Relations.

E-8: Bachelor's Degree in Business Analytics.

University degree programmes

ICAI

PROGRAMMES OFFERED BY THE SCHOOL OF ENGINEERING (Comillas ICAI)

GITI: Bachelor's Degree in Industrial Technologies Engineering.

GITT: Bachelor's Degree in Telecommunications Technologies Engineering.

IMAT: Bachelor's Degree in Mathematical Engineering and Artificial Intelligence.

GITI+ADE: Dual Degree in Industrial Technologies Engineering and Business Administration and Management.

GITT+BA: Dual Degree in Telecommunications Technologies Engineering and Business Analytics.

GIB: Bachelor's Degree in Biomedical Engineering

University degree programmes

CHS

PROGRAMMES OFFERED BY THE FACULTY OF HUMANITIES AND SOCIAL SCIENCES (Comillas CHS)

Bachelor's Degree in Early Childhood Education with a specialization in English.

Bachelor's Degree in Primary Education with a specialization in English.

CAFYDE: Dual Degree in Physical Activity and Sport Sciences and Primary Education.

Dual Degrees in Early Childhood Education and Primary Education, with specializations in English and Special Educational Needs.

Bachelor's Degree in Social Work.

Dual Degrees in Criminology and Social Work.

Bachelor's Degree in Philosophy.

FIPE: Dual Degree in Philosophy, Politics and Economics.

Philosophy and FIPE: Dual Degree in Philosophy and Philosophy, Politics and Economics.

PSYCO: Bachelor's Degree in Psychology.

PSYCOCRIMI: Dual Degree in Psychology and Criminology.

PSYCOADE: Dual Degrees in Psychology and Business Administration and Management.

TLIA: Bachelor's Degree in Language Technologies and Artificial Intelligence.

GLOBALCOM: Bachelor's Degree in Global Communication

RRII: Bachelor's Degree in International Relations

RRIICOM: Dual Degree in International Relations and Global Communication

University degree programmes

MACC

PROGRAMMES OFFERED BY MADRID CULINARY CAMPUS (MACC)

GASTRO: Bachelor's Degree in Gastronomy and Culinary Innovation.

GASTRO+ADE:Dual Degree in Gastronomy and Culinary Innovation and Business Administration and Management.

University degree programmes

INEA

PROGRAMMES OFFERED BY THE SCHOOL OF AGRICULTURAL AND ENVIRONMENTAL ENGINEERING (Comillas INEA)

Bachelor's Degree in Agricultural and Environmental Engineering.

Dual Degree in Agricultural and Environmental Engineering and Business Administration and Management.

ANEXO II
MATHEMATICS AND PHYSICS TEST SYLLABUSES

Mathematics test syllabus

1. ARITHMETIC OPERATIONS: addition, subtraction, multiplication and division involving numbers, fractions, polynomials, rational functions, powers and radicals.
2. POLYNOMIAL FACTORISATION: quadratic and biquadratic equations, and Ruffini's rule.
3. TRIGONOMETRY: basic concepts and principal trigonometric ratios.
4. MATRIX ALGEBRA: matrix operations, determinants (properties and calculation), adjugate matrix and inverse matrix.
5. SYSTEMS OF EQUATIONS:
    - Systems of linear equations: analysis, classification and solution.
    - Systems of nonlinear equations: solution.
6. INEQUALITIES: solving an inequality and a system of inequalities.
7. REAL-VALUED FUNCTIONS OF A REAL VARIABLE:
    - Concept, domain and range.
    - Limits of functions: calculating limits and resolving indeterminate forms.
    - Asymptotes.
    - Continuity of a function: properties and types of discontinuity.
    - Differentiability: derivative at a point, derivative function, differentiation, increasing and decreasing functions.
    - Optimisation: maxima and minima, concavity and convexity, points of inflection.
    - L'Hôpital's rule for calculating limits.
    - Exponential and logarithmic functions: concepts, elementary properties, change of logarithm base and solving equations.
8. INTEGRAL CALCULUS:
    - Finding antiderivatives; immediate indefinite integrals, integration by parts and substitution; basic rational and trigonometric functions.
    - Applying Barrow's rule.
    - Applying integration to calculate the area of a plane region.
9. ADDITIONAL TOPICS FOR THE SCIENCE AND TECHNOLOGY TRACK:
    - Complex numbers: argument, modulus, basic operations and powers of a complex number.
    - Geometry:
        - Lines in the plane: different forms of equations, relative positions of lines and perpendicularity.
        - Basic Euclidean geometry (geometric figures, areas and metric properties).
        - Equations of lines and planes in space; relative positions of lines, lines and planes, and planes.
10. SEQUENCES: LIMITS OF SEQUENCES.
11. STATISTICS: COMBINATORIAL NUMBERS AND THE BINOMIAL THEOREM.
12. ADDITIONAL TOPICS FOR HUMANITIES SOCIAL SCIENCES AND OTHER UPPER-SECONDARY TRACKS:
    - Statistics:
        - Descriptive statistics: calculating and interpreting the mean, mode, median and variance.
        - Probability calculations.
        - Discrete distributions: binomial, etc.
        - Continuous distributions: normal, etc.
        - Basic confidence intervals.

Physics test syllabus

1. PHYSICAL QUANTITIES AND UNITS: SI base and derived units.
   Dimensional equations.
2. RECTILINEAR MOTION: velocity and acceleration; position–time and velocity–time graphs.
   Uniformly accelerated motion.
3. CIRCULAR MOTION: angular quantities and their relationship to linear quantities.
   Tangential and normal acceleration.
4. PROJECTILE MOTION: equations, maximum height and range.
5. NEWTON'S LAWS: force and mass, linear momentum, motion on inclined planes and circular-motion dynamics.
6. WORK AND ENERGY: work, power, kinetic energy, mechanical energy and conservation of mechanical energy.
7. SIMPLE HARMONIC MOTION: amplitude, period and frequency; Hooke's law; energy.
8. GRAVITATION: application to satellite motion.
9. ELECTRIC FIELD: force on charged particles, Coulomb's law and the electric field produced by point charges.
   Electric potential produced by point charges.
10. MAGNETIC FIELD: forces on moving charges in magnetic fields; fields produced by
    infinite straight currents.
11. SIMPLE ELECTRICAL CIRCUITS: Ohm's law; resistors connected in series and parallel.
    Power dissipated by a resistor.