

# **Construction Studies (Leaving Certificate)**

## **Subject Overview**

Construction Studies introduces students to the knowledge and skills associated with construction technology and construction materials and practices.

This is achieved through theoretical study and integrated practical projects which provide a basis for the thorough exploration of materials and processes.

## **Course Content**

### **Part I - Construction Theory and Drawing**

- General principles
- Substructure
- Superstructure
- Internal Construction
- Services and external works
- Heat and thermal effects in buildings
- Illumination in buildings
- Sound in buildings

### **Part II - Practical Skills**

- Tools
- Processes
- Bench Test (practical Test)
- Coffee Table

### **Part III - Course Work and Projects**

- Workshop/laboratory experiments
- Student Project
- Student Folder/Portfolio

## **Year 1;**

Students introduced to detail drawings for a house from foundation level up to roof level. Some of these details include

Foundations, Floors – solid ground and suspended timber

Threshold (door) details, Window Cill & Head, Eaves, Pitched roof & Flat roof.

Students are introduced to bench test (Practical Test) examples. Students who have not studied woodwork before are introduced to basic procedures and make traditional woodwork joints before attempting a bench test. A fifth year project is usually also completed, with most students producing a furniture piece, based on a coffee table design.

## **Year 2:**

Any remaining drawing details including, Stairs, Fireplace and Chimney. Also students study U Values, Sound and light, Plumbing, Drainage, Passive Houses, Sustainability, Redesign and Site Safety.

Further bench tests before beginning final year project in November. Students design and make a project which can be either from the Heritage, Woodcraft, Construction or the New Technologies part of the syllabus.

This project must be completed **before** Easter holidays.

## Assessment

Construction Studies is assessed at both Higher and Ordinary Level by means of:

1. Terminal examination paper (50%)
2. Practical test (25%)
3. Student project (25%)

The **Written Exam** consists of a paper for Higher or Ordinary level. Students must answer Question 1 and 4 others, from a choice of 10. This accounts for **50%** of the total marks.



Coimisiún na Scrúduithe Stáit  
State Examinations Commission

2016. M76

*Leaving Certificate Examination, 2016*

### ***Construction Studies*** ***Theory - Higher Level***

*(300 marks)*

***Friday, 17 June***  
***Afternoon, 2:00 to 5:00***

- Answer Question 1 and four other questions.*
- All questions carry equal marks.*
- Answers must be written in ink.*
- Drawings and sketches to be made in pencil.*
- Write the number of the question distinctly before each answer.*
- Neat freehand sketches to illustrate written descriptions should be made.*
- The name, size, dimensions and other necessary particulars of each material indicated must be noted on the drawings.*

In May of year 2 students take a **4 hour Practical Bench Test** which accounts for **25%** of the overall Leaving Cert mark. The piece is designed to test practical woodworking skills without the use of any machinery and is supervised by an external supervisor.

**Stand for tablet computer**  
Seastán do ríomhaire tábléid

**Elevation / Aghaidhchló**

**End View / Taobhchló**

**Plan / Bonnchló**

Slope of dovetail  
Claonadh an déadailt 1:6

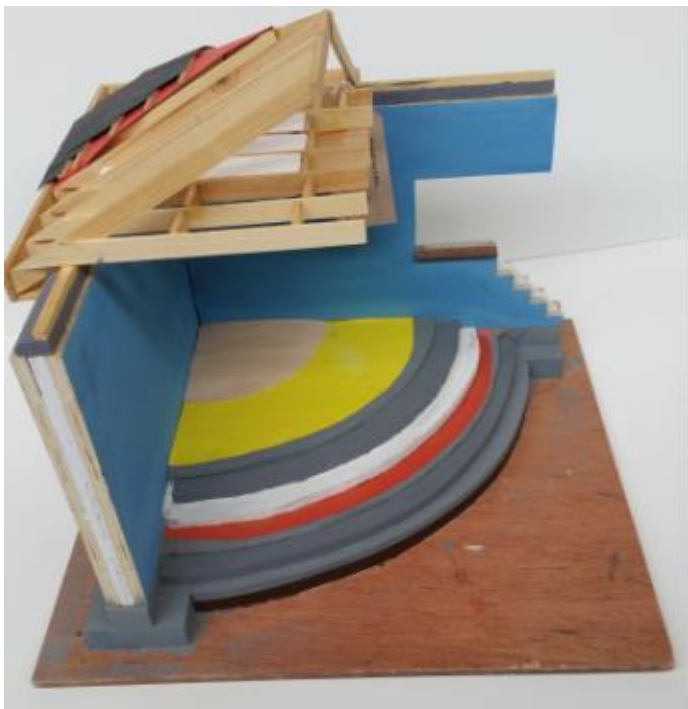
Shaping of edges is left to the candidate.  
Fágfar faoin iarrthóir na corra a chriochnú go cúí.

Chamfers 6 mm x 6 mm at the corner  
Sainfeir 6 mm x 6 mm ag an gcúinne

*Note: Hand up this examination paper to the Superintendent at the end of the examination.*  
*Nóta: Tabhair ar ais an scrúdhaipéar seo don Fheitheoir ag deireadh an scrúdaithe.*

A **Student Project** and accompanying folder. This accounts for the final **25%** of the leaving certificate grade.

Samples of Past Student Projects can be viewed on this site.



**The following types of Student Project can be submitted for assessment.**

## **Construction**

This category consists of all coursework relating to the construction of a building.

These include wet trades, planning regulations, scale models, details of roofs, foundations, doors, windows, stairs, timber frame construction, sectional details etc. plumbing/ heating and drainage.



## **Furniture (Woodcraft)**

This category includes all items of internal and external furniture.





## **Heritage**

Coursework presented under this category include:

Buildings of historical significance, dwellings in the vernacular tradition or from a particular period, buildings and structures of architectural interest.

Artefacts of historical significance, building restoration and conservation and traditional skills including furniture restoration and replication, etc.



## **New Technologies**

Coursework presented under this category include:

Geothermal, solar, wind, MHRV, rainwater harvesting; new insulation techniques and materials; innovative building methods; control technologies, smart metering etc.