

Ballyhaunis Community School



2019/20

Technical Graphics & DCG Plan

Subject Co-ordinator

- Mr Patrick McGarry

1. Teaching Staff

- Mr. Patrick McGarry : Senior Cycle/Junior Cycle
- Mr. Patrick Noone : Senior Cycle/Junior Cycle
- Mr. Colm Caulfield : Senior Cycle/Junior Cycle
- Mr. Colin Quinn : Junior Cycle

2. Department Rooms

- G4, D1, D2, D3 and D4

3. Equipment

- T-Squares and ancillary drawing equipment
- Data Projector x 4
- Teacher Desktop Computers x 5
- Student Desktop Computers x 20 (+12 in Technology Hub)
- Visualiser x 2
- A4 Printer x 2 (1 Colour)
- A3 Printer x 2
- Digital Camera

4. Time Allocation

- 1st Year : 1 double & 1 single(after taster programme)
- 2nd Year : 1 double & 2 singles per week
- 3rd Years : 1 double and 1 single per week *
- TY : Varies per year
- 5th & 6th Year : 1 double and 3 singles

5. Mission statement

“The Technical Graphics and DCG department aspires to provide a safe, stimulating environment where all students can develop their practical and academic skills to fulfil their goals”

6. Subject Aims

- **To develop the capacity and ability of students in the area of visuo-spatial reasoning.**
- **To apply appropriate thinking skills in the realisation of solutions.**
- **To develop appropriate graphical skills for communication.**
- **To develop the use of Information Technology.**
- **To develop the cognitive and practical skills associated with communication graphics, problem solving and critical thinking.**
- **To develop appropriate technical skills for the construction of drawings.**
- **To provide a learning environment where students can plan, organise and present appropriate design solutions using a variety of skills, techniques and media.**
- **To provide a basis for lifelong learning.**
- **To develop an appreciation for, and understanding of, aesthetic principles and their importance in design and the human environment.**

7. Subject Objectives

On completion of their studies students should be:

- **Familiar with the principles, concepts, terminology and methodologies associated with the graphics code.**
- **Able to apply the principles of both plane and descriptive geometries to the solution of a variety of concrete and abstract graphic problems.**
- **Able to produce neat and accurate drawings that comply with internationally recognized standards and conventions.**

- **Able to model in two and three dimensions, graphic design problems and solutions, utilising a range of appropriate techniques and media with confidence and discernment.**
- **Appreciative of the facility which the graphics code provides, in the solution of problems and in the visual communication of data.**
- **Able to utilise freehand sketching, both two and three dimensional, as a means of communication and as an aid to spatial reasoning and refinement.**
- **Able to utilise a variety of rendering and presentation techniques in the solution of graphic design problems, in both two and three dimensions.**
- **Competent and confident in the application of CAD and other appropriate Information and Communications Technologies (ICT) in the solution, modelling and presentation of graphic design solutions, in two and three dimensions.**
- **Able to interpret verbal, written and mathematical information, and to represent it graphically.**

8. Grouping of Pupils (Mixed ability, Streaming)

- **Technical Graphics is an optional subject and consequently all groups are of mixed ability. However, early in their 3rd year, students opt for Higher / Ordinary level after discussion with their Parents / Guardian and their teacher. Students are all generally encouraged to take the Higher level paper where possible.**
- **In 5th year all students follow the common level in DCG and they also decide on their level by the end of that year in consultation with Subject Teachers.**
- **Both the Honours and Ordinary groups are taught in the same classroom.**

9. Textbooks and Course Materials

- **1st Year** : **Graphics Solutions Workbook (Kora King)**
- **2nd&3rd Years** : **Understanding Technical Graphics (G&M)**
- **TY** : **No Textbook**
- **5th&6th Year** : **DCG Solutions Workbook (Kora King)**

10. Planning for students with special needs

The TG & DCG department caters for students with special needs in the following ways:

- The subject lends itself to one-to-one teaching thus assisting students with learning difficulties.
- Teachers liaise regularly with school's learning support co-ordinators Mrs Lyons & Ms Hayes. Relevant information from student profiles is exchanged where appropriate.
- Realistic expectations and suitable homework plans are devised & implemented.
- Teachers also liaise with tutors, parents and school management.

11. Cross-curricular planning

This is particularly relevant as there is overlap between Maths, Geography, Art, Construction Studies, and DCG. Whenever possible the link is established between subjects to tie the individual subjects together to show the bigger picture of education. As the Drawing staff are also practical teachers the links between this subjects is especially highlighted. The link between Maths is also emphasised and discussed both formally and informally with the Maths department to establish common links between the courses.

12. Homework Procedures

Homework has a role in consolidating the work done in class. Regular study will help promote good learning habits. It allows the student to work on their own initiative, and take responsibility for their own learning. Each student must have the necessary textbooks. Homework must be done conscientiously and in a tidy manner. The co-operation of parents in this area is absolutely essential. Homework should be divided evenly over the week. All students must have a Homework Journal to record all homework assigned. The Journal should be used as a means of communication between parents and teachers.

Teachers may occasionally, allow students to do homework in school to check how long it takes the average student to complete the task.

No student will be punished for getting homework wrong, but teachers will insist on seeing evidence that it was attempted. Homework is corrected and a comment made enlightening students as to where they may make improvements in the future.

Homework is given at the end of every class and is relevant to what was covered in that class. The amount of HW will vary, depending on whether the class was a double or a single and on when the next class will be. The amount will also depend on the year group and the general ability of the group.

Homework is always checked and noted in the student's journal and teacher's diary if not done by a student. Homework will often come in the form of completion of work done in class.

The average or suggested time expected following each class:

- 1st Year – 10/15 minutes
- 2nd Year – 10/15 minutes
- 3rd Year – 15/20 minutes with extra time at weekends for revision

- **5th Year – 15-25 minutes with extra time at weekends for revision**
- **6th Year – 25-35 minutes with extra time at weekends for revision and especially during the Student Assignment period.**

13. Record Keeping Procedures

Record of results, absenteeism, 'lates', behaviour etc are recorded in the teacher's journal and is also recorded on the schools VS-ware facility where deemed appropriate.

14. Reporting Procedures

Depending on what has to be reported dictates to whom the reporting is done. For disciplinary matters the reporting may be to the Year Head / Principal. This is primarily done via the school VS-ware facility but also through face-to-face discussions to get a more personal understanding on any issues.

For matters relating to "child abuse" the reporting must be to the Designated Liaison Person. This report should be written.

Matters relating to a child's academic performance may be reported to parents at a specially arranged meeting and parent teacher meetings.

15. Teacher in-career development

Patrick Mc Garry, Patrick Noone and Colin Quinn have completed the 13 in-service training courses for the new Leaving Certificate DCG, 2006-2009.

There has been so far just one-day in-service training ahead of the introduction of new Junior Cycle which commenced this August. More training days are scheduled this year.

16. Subject Meetings

Time is allocated to formal subject meetings during the year. Topics include organization of common curriculum, order lists or new IT and drawing equipment, organization of rooms, paperwork associated with exams, discipline, class sizes, students with learning difficulties, books, new *Literacy and Numeracy* initiatives etc.

Teachers frequently consult each other regarding matters arising. These subject meetings are very valuable. Teachers frequently consult each other on a more in-formal basis regarding matters arising. These subject meetings are very valuable. See Appendix 2 for a copy of department meetings.

See also Appendix 3 for Leaving Cert examinations results which are frequently discussed and evaluated and these Subject Meeting. Strategies to improve results are often debated and recorded. Areas where we perform well against the national figures are also acknowledged.

17. Literacy and Numeracy Policy

Reasons to integration of Numeracy and Literacy in Tech Gr. & DCG

- The universal language of *design and graphic representation* helps bridge and overcome many literacy barriers.
- Keywords to describe the skills mastered in Technical Graphics and DCG are easily identifiable and can help the student associate with the meaning of that particular term.
- Where pupils struggle with the language to represent their ideas there is huge scope to use other *practical* means to communicate.
- Literacy is encouraged through the use of posters on the wall with new terms explained.
- Numeracy is an integral part of TG and DCG. Links between Mathematics and Technical Graphics are often seen and easily recognised to the students. This is especially focused upon with the short Junior Certificate questions.

Strategies for Improving Literacy and Numeracy

- Students label sheet in title box and label each view they draw.
- The DCG student assignment requires students to explain, compare, discuss, analysis various products. Thesauruses/Dictionary and internet are encouraged to find adjectives to describe shapes etc.
- A print rich environment is in the classroom both 2d and 3d.
- Topics are explained and demonstrated explicitly to students.
- Class discussions are encouraged using relevant terms/descriptions.
- Students compare and contrast themes and ideas when designing products.
- Students are encouraged to organise and convey their written work accurately through the use of annotations. Huge emphasis placed on size/accuracy and proportion at all levels.
- Measurement conversion is also emphasised

18. Assessments/Examinations Procedures

In line with the recent introduction of semesterisation in BCS, formal assessment of learning occurs at three stages throughout the year. Typically, this will occur in mid-November, mid-February and at the end of May. State examination students in 3rd and 6th year will sit 'mock' examinations in February in a structured examination setting.

At the end of a section a teacher may give an examination to assess the learning in the particular topic. Assessment for learning continues on throughout the year where teachers monitor student's progress by speaking to students while they draw and by structured questioning throughout classes. The results of all formal examinations are relayed to parents in the form of a report. Examination of student's folders is also a key component in final assessment for all year groups.

Assessment for Learning

One of the aims of the Technical Graphics/DCG department is that *Assessment for Learning* (AfL) becomes a central aspect of the methodology used in assessment of the subject. Assessment for learning is characterized by the following:

- ✓ Sharing Learning goals with students – this to be shared at the beginning and end of the class
- ✓ Helping students to recognise the standards they are aiming for – examples of past work shown where possible
- ✓ Involving students in assessing their own learning – this can be used when students are completing exam papers
- ✓ Providing feedback, helps students to recognise what they must do to close any gaps in their understanding and knowledge – this can be achieved by giving oral feedback to students
- ✓ Communicating confidence – each student is encouraged and given support to demonstrate their abilities.
- ✓ Adjusting teaching methods to meet the needs of all students – the teaching team strive to be flexible in their teaching style to meet the needs of all students' ability.

See appendix 1 for an example of an AfL strategy used with first year students to develop awareness of learning. We are currently developing additional strategies to assist in this area.

19. Technical Graphics - Topic by Topic

First Year

1. Learning to draw
2. Inclined Lines
3. Angles
4. Basic Constructions
5. Triangles
6. Polygons
7. Orthographic Projection 1
8. Pictorial Drawing 1
9. Freehand Sketching
10. The Ellipse
11. Circle 1
12. Developments 1

Second Year

1. Orthographic Projection 2
2. Pictorial Drawing 2
3. Transformation Geometry
4. Areas
5. The Parabola
6. Auxiliary Projection
7. Circles
8. Rotation of Objects
9. The Ellipse and Parabola 2
10. Transformation Geometry 2

Third Year

1. Solids in Contact
2. Enlargements and Reductions
3. Developments
4. Geometrical Solids
5. CAD
6. Solidworks
7. Short Questions
8. Perspective

First Year	BCS Technical Graphics Scheme of Work	
Term	Topic	Assessment
Term 1 Sept-Oct **	<p>Learning to Draw</p> <ul style="list-style-type: none"> • Introduction to Technical Graphics • Use of drawing equipment • Standard page layout • Fireplace Drawing – Embellish where appropriate • Speedo / Pizza Hut / CAO Logos • (Additional Logos <u>where appropriate</u>) <p>Inclined Lines</p> <ul style="list-style-type: none"> • Lines + printing, • Vertical, horizontal, inclined lines- printing practice. • Construction work • Lotto / EA Sports / Nike Logos/Ulster Bank • (Additional Logos <u>where appropriate</u>) <p>Angles</p> <ul style="list-style-type: none"> • Set square angles, similar angles (compass), types of angles, calculation of angles (protractor work) 	<p>Review of students work in class</p> <p>Review of students work in class</p> <p>Homework Worksheets</p> <p>Review of students work in class</p>
Oct- mid Dec	<p>Basic Constructions</p> <ul style="list-style-type: none"> • Bisect lengths, angles. Division of a line. Perpendicular lines. In-circle and circumcircle <p>Triangles</p> <ul style="list-style-type: none"> • Types of triangles, methods of construction, theorems on same. <p>Polygons</p> <ul style="list-style-type: none"> • Types and methods of drawing, polygons used in design. 	<p>Review of students work in class</p> <p>Homework Worksheets</p>
Semester Test	Logos / Constructions	Marking scheme + review of folder work
Term 2		

<p>Jan-mid Feb</p>	<p>Orthographic Projection 1</p> <ul style="list-style-type: none"> • Plans, elevations, end views for basic shapes. • Ortho from 3-d • Relationship to everyday life. 	<p>Homework Worksheets + Topic Test</p>
<p>Mid Feb - April</p>	<p>Pictorial Drawing 1</p> <ul style="list-style-type: none"> • Oblique projection/Isometric Projection. Simple figures. • Cubes, prisms, simple inclined shapes. • Oblique from Oblique • Oblique from Isometric • Oblique from orthographic <p>Freehand Sketching</p> <ul style="list-style-type: none"> • Lines/Technique, Circles, prisms, Cylinders, right solids, shading <p>The ellipse</p> <ul style="list-style-type: none"> • Basic construction, Concentric/Trammell, location of focal points, construction of tangent to point on curve. 	<p>Review of students work in class</p> <p>Homework Worksheets</p>
<p>Term 3</p>		
<p>April-Jun</p>	<p>Circles 1</p> <ul style="list-style-type: none"> • Constructions on same, introduction to tangents, locating centres, concentric and eccentric circles. • Inscribed and circumscribed circles. • Tangents External and internal tangents. • Circles in contact 1. • Designs based on same. <p>Developments 1</p> <ul style="list-style-type: none"> • Cuboids, Prisms, Cylinders, packaging incorporating all. <p><u>End of Year Test</u></p> <ul style="list-style-type: none"> • Orthographic Projection • Ellipse • Pictorial Drawing 	<p>Homework Worksheets</p> <p>Review of students work in class</p>

Second Year	BCS Technical Graphics Scheme of Work	Second Year
Term	Topic	Assessment
Term 1	<u>Orthographic Projection 2</u>	
Sept-Oct	<ul style="list-style-type: none"> • More complex shapes and solids. Problems involving 1st and 3rd angle projection. <p>Pictorial Drawing 2</p> <ul style="list-style-type: none"> • More complex oblique-Curves and Circles • Isometric Projection from Isometric • Isometric projection from Orthographic • Isometric projection by scale • Axonometric projection from Isometric 1 <p>Transformation Geometry 1</p> <ul style="list-style-type: none"> • Central symmetry, Axial symmetry, Translations and Rotations of simple and complex objects/figures. Problems on same. 	<p>Homework Worksheets</p> <p>Topic Test</p> <p>Homework Worksheets</p> <p>Topic Test</p>
Term 2	Areas	
Oct- Dec	<ul style="list-style-type: none"> • Calculation of areas using grids. Basic construction of converting the following; triangle→rectangle→ square • Square → rectangle→ triangle • Converting complex figures to new shapes. <p><u>The Parabola</u></p> <ul style="list-style-type: none"> • Constructing the parabola using rectangular/eccentricity method and constructing tangents to the curve. <p><u>Auxiliary elevations and plans/True Shape.</u></p> <ul style="list-style-type: none"> • Sections on prisms and pyramids. Horizontal and vertical sections. Introduction to true shapes. Indexing. <p><u>Circles 2</u></p> <ul style="list-style-type: none"> • More complex problems, e.g. logos, containers etc. Complex circular shapes and exercises, 	<p>Homework Worksheets</p> <p>Topic Test</p> <p>Homework Worksheets</p> <p>Marking scheme + review of folder work</p> <p>Homework Worksheets</p>

<p>Term 3 Jan-March</p>	<p><u>Rotations of Objects</u></p> <ul style="list-style-type: none"> • Rotations through the various view Orthographic Views. <p>The ellipse and Parabola 2</p> <ul style="list-style-type: none"> • More complex and problem solving exercises on the ellipse which would include tangents (internal & external). Supplementary methods for constructing the ellipse. • Constructing the parabola using rectangular method and constructing tangents to the curve. 	<p>Homework Worksheets Topic Test</p> <p>Homework Worksheets Topic Test</p> <p>Review of students work in class</p>
<p>March</p>	<ul style="list-style-type: none"> • Sketching • 2d and 3d • Solidworks Introduction – Interface briefing plus sample modelling. 	<p>Homework Worksheets</p>
<p>April-Jun</p>	<p>Pictorial Drawing 3</p> <ul style="list-style-type: none"> • Construction of axonometric planes. Construct axonometric view of solids by projecting from given views. Identifying and indexing of views. Problems on same. <p>Transformation Geometry 2</p> <p>Central symmetry, Axial symmetry, Translations and Rotations of simple and complex objects/figures. Problems on same.</p>	<p>Review of students work in class</p> <p>Homework Worksheets</p> <p>Homework Worksheets</p>
	<p><u>End of Year Test</u></p>	

Third Year	BCS Technical Graphics Scheme of Work	
Term	Topic	Assessment
Term 1	Solids in Contact	
Sept-Oct	<ul style="list-style-type: none"> Pyramids, prisms, cones and spheres in contact. Finding points of contact between solids. Problems on same. <p>Enlargements and Reductions</p> <ul style="list-style-type: none"> Enlarging and reducing figures using grid paper, polar point and radiating lines method. <p>Developments 2</p> <ul style="list-style-type: none"> Developments of prisms, pyramids, cones, cylinders. Developments of simple containers. Developments of sloped and curved simple exercises. Use of indexing. 	<p>Homework Worksheets Topic Test</p> <p>Review of students work in class</p> <p>Homework Worksheets Topic Test</p> <p>Review of students work in class</p>
Term 2	C.A.D	
Oct- Dec	<ul style="list-style-type: none"> Terminology and theoretical aspects-no computers. Identification and application of computer software and hardware. Familiarisation of various tools in CAD software package. (Very limited availability of computers) <p>Short Questions</p> <ul style="list-style-type: none"> Introduction through Ordinary and Higher level past papers <p>Perspective</p> <ul style="list-style-type: none"> 1 and 2-point perspective and exercises on same 	<p>Homework Worksheets</p> <p>Review of students work in class</p> <p>Topic Test</p> <p>Homework Worksheets</p>
Term 3	Revision of Topics for Mocks	
Jan-Feb		
Feb - June	Exam Papers –Revision where appropriate	

Taster Programme

The taster programme is subject to change year on year depending on different factors. We strongly advocate for the retention of a taster programme and firmly believe that it is essential to give all students the option to sample each subject before picking their subjects for the remainder of their Junior Cycle. Historically we always find that there is a greater increase of students (especially girls) who wish to pursue Technical Graphics after sampling the subject. For the present academic year 2019/20, each of the five 1st year groups get to sample the optional subjects for a two week period. There is a provision for two class groups for the remainder of the year.

*The scheme outlined above is contingent on the format of the Taster Programme on a yearly basis.

New Junior Cycle

The new Junior Cycle commenced for Technical Graphics in August 2019. It is still unclear as to the exact format of the course, including the nature of the CBA'S or the project/terminal exam. Our department attended one JCT training in-service day which was provided for Technical Graphics (which will henceforth be called 'Graphics') but the associates who delivered the session were unable to furnish much definitive details. We are assured that we will be informed fully as to the relevant details at our second in-service which will occur in December.

Junior Cycle Statements of Learning

1. Communicate effectively using a variety of means in a range of contexts in L1.
2. Listens, speaks, reads and writes in L2 and one other language at a level of proficiency that is appropriate to her or his ability.
3. Creates, appreciates and critically interprets a wide range of texts.
4. Creates and presents artistic works and appreciates the process and skills involved.
5. Has an awareness of personal values and an understanding of the process of moral decision making.
6. Appreciates and respects how diverse values, beliefs and traditions have contributed to the communities and culture in which she/he lives.
7. Values what it means to be an active citizen, with rights and responsibilities in local and wider contexts.
8. Values local, national and international heritage, understands the importance of the relationships between past and current events and the forces that drive change.
9. Understands the origins and impacts of social, economic, and environmental aspects of the world around her/him.
10. Has the awareness, knowledge, skills, values and motivation to live sustainably.
11. Takes action to safeguard and promote her/his wellbeing and that of others.
12. Is a confident and competent participant in physical activity and is motivated to be physically active.
13. Understands the importance of food and diet in making healthy lifestyle choices.
14. Makes informed financial decisions and develops good consumer skills.
15. **Recognises the potential uses of mathematical knowledge, skills and understanding in all areas of learning.**
16. Describes, illustrated, interprets, predicts and explain patterns of relationships.
17. **Devises and evaluates strategies for investigating and solving problems using mathematical knowledge, reasoning and skills.**

18. Observes and evaluates empirical events and processes and draws valid deductions and conclusions.
19. Values the roles and contribution of science and technology to society, and their personal, social and global importance.
20. Uses appropriate technologies in meeting a design challenge.
21. Applies practical skills as she/he develop models and products using a variety of materials and technologies.
22. Takes initiative, is innovative and develops entrepreneurial skills.
23. Brings an idea from conception to realisation.
24. Uses technology and digital media tools to learn, communicate, work and think collaboratively and creatively in a responsible and ethical manner.

L1 is the language medium of the school. L2 is the second language.

Junior Cycle Key Skills

❖ Being creative

❖ Managing Information and thinking

❖ Managing myself

❖ Communicating

❖ Working with others

❖ Staying well

❖ Being literate

❖ Being numerate

The Statements of Learning and Keys Skills, as identified in the new Junior Cycle are listed above. We have identified and highlighted the relevant areas for Technical Graphics in BCS and will continue to work towards achieving these in the future.

20. DCG Course Content

1. Core Areas of Study

- **Plane and Descriptive Geometry**
- **Projection Systems**
- **Plane Geometry**
- **Conic Sections**
- **Descriptive Geometry of Lines and Planes**
- **Intersection and Development of Surfaces**
- **Communication of Design and Computer Graphics**
- **Graphics in Design and Communication**
- **Communication of Design**
- **Freehand Drawing**
- **Information and Communication Technologies**

2. Optional Areas of Study

- **Applied Graphics**
- **Dynamic Mechanisms**
- **Structural Forms**
- **Geologic Geometry**
- **Surface Geometry**
- **Assemblies**

Course assessment

The syllabus will be assessed in relation to the syllabus objectives and the specified student learning outcomes. All material specified within the areas of study is examinable.

There are two assessment components

- **A Student Assignment (40% of marks, of which CAD will form a significant and compulsory component)**

- **A terminal examination paper (60% of marks)**

The purpose of the ***Student Assignment*** is to assess those elements of the course that cannot be readily assessed through the terminal examination, in particular elements of design and communication. The assessment criteria applying to completed Higher and Ordinary level assignments will differ. The learning outcomes related to the course assignment will result in students being able to:

- Represent design and communication information through sketches, drawings, CAD and other ICT applications
- Use appropriate presentation techniques, including colour, rendering and sketching, to represent an artefact and/or design
- Produce appropriately dimensioned 2D and 3D drawings and models using CAD
- Appreciate, analyse, evaluate and modify artefacts from a design perspective
- Demonstrate design and visualisation skills and techniques.

The assignment will take approximately 40 hours to complete. The completed assignment may take the form of:

- ❖ A design investigation and modification

or

- ❖ A design investigation and concept design

21. Information Technology

Information technology is incorporated as much as possible into both the teaching and learning of DCG as it is recognised as imperative to satisfying the goals of the syllabus. Digital presentations are frequently used in class. Understanding Solidworks is fundamental to this course. The use of visualisers is also incorporated into the teaching of more intricate skills. Students are expected to use the internet to research and gain better understanding of material being covered. Students are encouraged to use the I.T. resources available on subject related websites such as T4 and E.T.T.A.

Fifth Year Scheme of Work

	TOPIC	DESCRIPTION	SYLLABUS
1-3	<i>Orthographic Projection</i>	Revision of basic fundamentals of topic. Projecting points between views Drawing curved surfaces	Core
4-5	<i>Auxiliary Projection</i>	Plans, elevations. Curved surfaces. Sectional views	Core
6-7	<i>Isometric/Oblique Projection</i>	Pictorial Views	Core
8-10	<i>Advanced Pictorial Drawing</i>	Axonometric, Diametric, Trimetric, Isometric scale	Core
	MIDTERM	MIDTERM	
11-13	<i>Perspective Projection</i>	One-point, Two-point perspective Auxiliary vanishing points	Core
14-16	<i>Oblique Plane (1)</i>	Introduction	Core
	CHRISTMAS	CHRISTMAS	
17-18	<i>Intersecting Surfaces</i>	Finding points of interpenetration using edge views, cut views, true shapes etc.	Core
19-21	<i>Lamina/Planes</i>	Representing the elements of geometry Concepts of viewing lines, planes, from different views, edges Section planes etc.	Core
22	<i>I.T. Skills. Solidworks Introduction</i>	Computer basics, file management. Inserting pictures, tables, charts etc. Solidworks Interface Commands introduction	Assignment
	MIDTERM	MIDTERM	
23-24	<i>Solidworks</i>	Features, Sketch, toolbar commands Memo Block, Calculator, T-Square, Calculator exercises Drawing sheet layout	Assignment
25-27	<i>Solids in Contact (1)</i>	Cones, Spheres, Cylinders in contact Tangency, points of contact, loci, internally tangential solids etc	Core
	EASTER	EASTER	

28-32	<i>Dynamic Mechanisms Assemblies 1</i>	<i>Involutes, Helix's, Special curves, Loci, Linkages, Cams, Gears</i>	<i>Options</i>
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Sixth Year Scheme of Work

WEEK	TOPIC	DESCRIPTION	SYLLABUS
1-4	<i>Conic Sections</i>	<i>Recognise features common to all Conic sections, Ellipse, Parabola, Hyperbola Eccentricities, conic ratio's, etc</i>	<i>Core</i>
5-8	<i>Developments/ Envelopments. Assignment</i>	<i>Prisms, curves surfaces. Cones and pyramids. Oblique solids. Envelopments Assignment research</i>	<i>Core</i>
9	<i>Sketching Techniques/Assignment</i>	<i>Shading, rendering Use of different drawing media</i>	<i>Assignment</i>
10-15	<i>MIDTERM Student Assignment</i>	<i>MIDTERM Higher Level = 14 pages Ordinary Level = 12 pages</i>	<i>Assignment</i>
16	<i>Projection continuation CHRISTMAS</i>	<i>Hard and Soft Copy Review CHRISTMAS</i>	<i>Assignment</i>
17-18	<i>Projection completion</i>	<i>Final check list Bind folder, burn CD</i>	<i>Assignment</i>
19-21	<i>Mock Preparation</i>	<i>Variety of Topics</i>	<i>C&O</i>
21-22	<i>Mocks Exams</i>	<i>Mocks Exams</i>	<i>Mocks Exams</i>
23-27	<i>Assemblies</i>	<i>Reading a diagram Orthographic recap Hatching – how/what to hatch</i>	<i>Options</i>

<i>28-31</i>		<i>Sectional views</i>	
	<i>EASTER</i>	<i>EASTER</i>	
	<i>Interpenetration (2)</i> <i>Oblique Plane (2)</i>	<i>Exam Papers</i>	<i>Core</i>
<i>31-33</i>			
	<i>Exam Preparation</i>	<i>Revise paper layout</i> <i>Suggested timing</i> <i>Recap all topics</i>	<i>Core/Options</i>

Appendices



Ballyhaunis Community School

SUBJECT: _____

Teacher: _____




Student: _____

Class: _____

Target Grade: _____

Grade Achieved: _____

To be completed by student after work/exam has been corrected

<p>The areas I need to focus on to improve are</p> 	
<p>Two things I did well</p> 	
<p>What will I do differently to ensure I make progress?</p> 	

Parent/Guardian Signature: _____

Date: _____

Ballyhaunis Community School

Verification of Croke Park Hours



Planning & Development Work - Meeting Record

Subject Matter : **Technical Graphics/DCG**

Date : **28/8/17**

Start Time : **4:00**

Finish Time : **5:00**

Present:

Patrick McGarry, Patrick Noone, Sean McHugh, Colin Quinn

What was discussed?

- New building – implications for our subject areas
- LC DCG results
- Reduced number of 3rd year classes
- Equipment

What was decided?

- New DCG room (I4) is not fit for purpose – needs to be re-organised
- G1 temporary accommodation for secondary drawing room
- Satisfied with results but lacking in H1 grades – Too many students taking honours levels
- Urgently needs to be discussed with management – huge concern
- Awaiting delivery from suppliers

What action points were agreed, if any?

- Discuss with contractor/management re I4 options
- G1 to be kitted out short term as best as possible
- Greater consideration to be taken re subject levels pursued by students
- Suppliers to be contacted asap

Who will undertake these action points?

- All listed above
- Sean to liaise with contractor
- Patrick to liaise with supplier

Date of next meeting:

Signed:

- 1.
- 2.
- 3.
- 4.

Ballyhaunis Community School

Verification of Croke Park Hours



Planning & Development Work - Meeting Record

Subject Matter : Technical Graphics/DCG

Date : 25/9/17

Start Time : 4:00

Finish Time : 5:00

Present:

Patrick McGarry, Patrick Noone, Sean McHugh, Colin Quinn

What was discussed?

- New building – updates
- JC Technical Graphics results
- Reduced number of 3rd year classes -update
- Taster programme

What was decided?

- New DCG room (I4) has failed to work as a drawing room due to layout restrictions
- Satisfied with JC results always scope for improvement. In line with national averages
- Urgently needs to be discussed with management – still a huge concern
- Need to discuss with management to re-evaluate the process. Undecided if it should remain

What action points were agreed, if any?

- I4 needs to be changed. Need to liaise with contractor/furniture supplier asap
- Continue to promote T.Gr especially with the girls
- Increase the importance of homework especially with the reduced classes
- Need a whole school discussion on the taster programme and where it is going

Who will undertake these action points?

- All listed above
- Sean/Patrick to liaise with contractor/management
- Everyone to discuss with colleagues the merits of the taster programme and report back to management

Date of next meeting:

Signed:

- 1.
- 2.
- 3.
- 4.

Ballyhaunis Community School

Verification of Croke Park Hours



Planning & Development Work - Meeting Record

Subject Matter : Technical Graphics/DCG

Date : 03/10/18

Start Time : 4:00

Finish Time : 5:00

Present:

Patrick McGarry, Patrick Noone, Sean McHugh, Colin Quinn

What was discussed?

- New building/refurbishment – updates
- JC Technical Graphics results
- Reduced number of 3rd year classes - update
- Taster programme

What was decided?

- New DCG room G4 is functioning very well. Refurbished D1 is finally completed but needs to be fully kitted out. Patrick will address this matter.
- Broadly satisfied with JC results but scope for improvement. Reduced number of classes last year had a seriously detrimental impact on results.
- Urgently needs to be discussed with management – still a huge concern.
- Need to discuss with management to re-evaluate the process again. Undecided if it should remain in the present format.

What action points were agreed, if any?

- Need to liaise with contractor/furniture supplier asap to complete D1.
- Continue to promote T.Gr especially with the girls.
- Increase the importance of homework especially with the reduced classes.
- Need a whole school discussion on the taster programme and where it is going.

Who will undertake these action points?

- All listed above
- Sean/Patrick to liaise with contractor/management
- Everyone to discuss with colleagues the merits of the taster programme and report back to management

Ballyhaunis Community School

Verification of Croke Park Hours



Planning & Development Work - Meeting Record

Subject Matter : Technical Graphics/DCG

**Date : 23/8/19
4:00**

Start Time : 2:00

Finish Time :

Present:

Patrick McGarry, Patrick Noone, Sean McHugh, Colin Quinn, Colm Caulfield

What was discussed?

- Welcome to Colm Caulfield.
- Junior Cycle workbook.
- Leaving Cert results.
- Refurb completion for D1/D2.
- Technology Hub equipment.

What was decided?

- Delighted to have a new member in our department. Confirmation of the success of our department in promoting our subjects and increasing student participation.
- T.Gr. Solutions Workbook ordered for 1st Years. Taster programme material to be decided by individual teachers involved.
- Colm to be briefed on DCG Subject plans.
- Satisfied with results overall. A more comprehensive analysis is required.
- Outstanding items to be submitted to David/Fintan re furniture.
- Computers are functioning in D2. No Solidworks installed unfortunately.

What action points were agreed, if any?

- LC results to be analysed via the PDST template to draw comprehensive conclusions.
- Taster programme to be continually monitored and evaluated. We need to determine the merit of continuing with the present system.
- Continue to explore the possibility of additional SW software.

Who will undertake these action points?

- All listed above will liaise on plans.
- Patrick & Pat will consult with management regarding T.Gr. requests in respect to Solidworks software.
- TGr. teachers in particular will observe and assess the relative merits of the taster programme.