

Course:	Pearson BTEC Level 3 National Extended Diploma in Construction & the Built Environment	Unit/module:	7: Graphical Detailing in Construction	Year:	2023-2024
Tutor:	Adewale Abimbola	Time:	35 Weeks, 1.45 hours per week		

Week No	Week Completed	Syllabus Ref	Topic	Methods of Delivery	Resources	ESW Opportunities (How will you develop Literacy, Numeracy and ILT?)	Assessment/ Student Activity	Remarks (Please note opportunities for Equality and Diversity ESDGC, Wellbeing, Curriculum Cymraeg, Enterprise, etc. and any Health and Safety issues)
1	INDUCTION WEEK							
2		LA A	Topic: Introduction to Unit 7 & Equipment and Media for Manual Detailing Sample activities: Presentation and discussion of the unit brief, Pearson-set theme and topics for student selection. Students to identify the equipment and media needed to produce own construction drawings.	T D GW CE	IWB C Handout DP	PS IT WWO	Q&A Discussion Group Work	Development of problem-solving skill. Development of research skill. Overview of the unit in relation to the whole civil engineering and construction sectors.

Methods of Delivery: T – Talk, D – Discussion, GW – Group Work, RL – Role Play, CE – Class Exercise, WS – Worksheet, etc

Essential & Key Skills Opportunities: C – Communications, AN – Application of Number, IT – Information Technology, IOLP – Improving Own Learning & Performance, WWO – Working With Others, PS – Problem Solving, ESDGC (Education for Sustainable Development and Global Citizenship).

Assessment: Assignment Ref, Q&A, Discussion, Group Work, Quiz, etc

Resources: IWB – Interactive Whiteboard, WB – Whiteboard, C – Computer, DP – Data Projector, F – Flipchart, TV/Video, etc.

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			Seminar and discussion of unit Learning Outcomes and Assessment Criteria. Students should be able to explain the equipment and media used for manual detailing.					
3-4		LA A	Topic: Manual Drawing Techniques Sample activities: Presentation on manual drawing techniques. Students, working in groups, identify the different parts of a title block layout. Students to discuss the types of drawing, including the function and use of drawing lines. Students to manually produce a title block layout.	T D GW CE WS PowerPoint	IWB C Handout DP	IT WWO PS	Q&A Discussion Group Work	Development of problem-solving skill. Development of research skill.
5		LA A	Topic: Isometric Projection Presentation on isometric projection. Students to produce isometric drawing of objects/elements.	T D WS CE PowerPoint	IWB C Handout	C IT WWO PS	Q&A Discussion Group Work	Development of drawing skill. Development of presentation skill.

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6		LA A	Topic: Axonometric Projection Presentation on axonometric projection. Students to produce axonometric drawing of objects/elements.	T D WS CE PowerPoint	IWB C Handout	C IT WWO PS	Q&A Discussion Group Work	Development of presentation skill. Development of drawing skill.
7		LA A	Topic: Orthographic Projection Presentation on orthographic projection. Students to produce orthographic drawing of objects/elements.	T D WS CE PowerPoint	IWB C Handout	C IT WWO PS	Q&A Discussion Group Work	Development of drawing skill. Development of presentation skill.
8		LA A	Topic: Projection Drawings Presentation/revision on isometric, axonometric, & orthographic projection. Students to produce isometric, axonometric, & orthographic drawings of objects/elements.	T D WS CE PowerPoint	IWB C Handout	C IT WWO PS	Q&A Discussion Group Work	Development of presentation skill. Development of drawing skill.
9-10		LA A	Topic: Manual Drawing Techniques and Projection Drawings Students to produce isometric, axonometric, & orthographic drawings of a two-storey building.	T D D CE	IWB C Handout	C IT WWO PS	Q&A Discussion Group Work	Work collaboratively in diverse groups Development of drawing skill.

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11-16		LA B	Topic: Computer-aided Design (CAD) Presentation on Hardware & software requirements for CAD operations. Presentations on the use of Revit software to produce a two-storey residential building. Students to outline the essential hardware and software requirements for CAD works. Students to navigate the user interface of the Revit software. use important navigation tools such as Zoom, Pan, View, Snap, produce title block sheet, produce the ground floor of a two-storey residential building, add a new level to a two-storey detached house, create the ground and first floor slabs of a two-storey residential Building, create railings on the first floor of a two-storey residential building, create walls on the second floor of a two-storey residential building, create the ceiling and roof of a two-storey residential building,	T D GW CE WS PowerPoint	IWB C HandoutIT	C IT WVO PS	Quiz Q&A Discussion Group Work	Work collaboratively in diverse groups Development of drawing and design skills. Develop IT skill. Develops an understanding of choices and decisions
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			create the site of a two-storey residential building, produce a rendered view of a two-storey residential building, produce section drawings, produce schedules of building elements, save and export drawings as pdf files.					
17		LA A	Topic: Comparison of Manual & CAD Methods of Drawing Presentation on the strengths and weaknesses of both manual and CAD methods of drawing. Students to evaluate the use of CAD and manual methods of drawing.	T D GW CE WS PowerPoint	IWB C HandoutIT	C IT WWO PS	Quiz Q&A Discussion Group Work	Development of research skills Development of academic writing skill.
18		LA A&B	Issue Assignment 1. Students are introduced to the assessment process for the unit, revisit learning outcomes and criteria. Discussion of submission requirements for the unit.	T WS Assignment Ref	C WS	IOLP PS	Assignment Ref Discussion	Development of research skills Develops an understanding of choices and decisions Development of academic writing skill.

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19.21		LA B	Topic: Assignment 1 – Independent study & support sessions Students, working individually, begin to identify resources required in relation to their proposed project. Submit Assignment 1.	T CE WS Assignment Ref	C WS	IOLP PS	Assignment Ref Discussion	Development of research skill. Develops an understanding of choices and decisions Development of academic writing skills
22		LA C	Topic: Oblique Projection Presentation on oblique projection. Students to produce oblique drawing of objects/elements.	T D GW RL CE WS	IWB C Handout	C AN IT WWO PS	Q&A Discussion Group Work Quiz Formative end test	Develops an understanding of waste minimisation. Develop measurement skills. Develop IT skills with the use of MS Excel and AutoCAD. Treating all students' submission equally and fairly.
23-24		LA C	Topic: Scaled perspective drawing Presentation on scaled perspective drawing. Students, working individually, begin to produce one-, two-, and three-point basic perspectives. Provide assignment 1 feedback.	T D GW CE WS PowerPoint	IWB C	C IT WWO PS	Quiz Q&A Discussion Group Work	Develop IT skills with the use of MS Excel and AutoCAD. Develop measurement skills. Develops an understanding of waste minimisation.
25-28		LA C	Topic: Free hand sketches	T	IWB	C	Quiz	Development of research skills

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			Presentation on techniques on freehand perspective sketching. Students, working individually, begin to produce exterior and interior finishes of building elevations, and 3D sketches using two-point perspective and three-point perspectives.	D GW CE WS PowerPoint	C Handout	IT WWO PS	Q&A Group Work	Develop IT skills with the use of MS Excel and AutoCAD.
29		LA C	Issue Assignment 2. Students are introduced to the assessment process for the assignment, breakdown of the assignment requirement, revisit learning outcomes and criteria. Discussion of submission requirements for the assignment.	T WS Assignment Ref	C WS	IOLP PS	Assignment Ref Discussion	Development of research skills Develops an understanding of choices and decisions Development of drawing and design skills.
30-33		LA C	Topic: Assignment 2 – Independent study & support sessions Students, working individually, begin to identify resources required in relation to their proposed project. Students may meet with tutor, individually or in groups, to discuss their projects and receive advice in support of developing final outcomes, report and presentation. Submit Assignment 2.	T D GW CE WS PowerPoint	IWB C	C IT WWO PS IOLP	Assignment Q&A Discussion Group Work	Development of critical thinking skills Development of drawing and design skills. Develops an understanding of choices and decisions

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34- 35		LA C	Topic: Provide assignment 2 feedback. Tutor to begin to provide feedback to assignment 2 submissions.	T D	C IWB	C IT WWO PS	Assignment Ref Discussion	Develops an understanding of choices and decisions Treat all students' submission equally and fairly.
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