

Unit 81: Pattern Grading for Fashion and Clothing

NQF Level 3: BTEC National

Guided learning hours: 60

Unit abstract

Fashion designers have an influence on many aspects of contemporary life. The clothes that people wear can make a statement about their lifestyle, aspirations and status. Clothing also needs to provide adequate protection and be produced in materials appropriate for purpose. As the human figure comes in all shapes and sizes, designers and producers need to have the skills necessary to design and make garments that cater for this range. This unit provides learners with the opportunity to develop the basic principles of pattern cutting including the techniques of pattern grading, and applying these principles to a variety of fashion design styles.

Learners will obtain a basic understanding of the manual methods of grading pattern up and down sizes in addition to exploring the technology used within the fashion and clothing industry.

Learners will be encouraged to use specialist computer applications as a tool in this process. They will also research the application and impact of current technology used within the fashion and clothing industry. Learners may also make industrial visits to see production methods first-hand, or visit trade shows.

Learners are encouraged to look at a variety of fashion design features in order to develop their skills in and understanding of the techniques required for pattern grading.

The knowledge and understanding gained in this unit underpins other fashion and clothing specialist units within the qualification. Assignment briefs should be designed to include the opportunity for integrated assignment work. Learners should have the opportunity to develop and demonstrate individual skills and understanding.

Learning outcomes

On completion of this unit a learner should:

- 1 Understand the principles of pattern grading
- 2 Be able to select and use tools, equipment and technology for pattern grading
- 3 Be able to apply grading principles to basic blocks and pattern adaptations.

Unit content

1 Understand the principles of pattern grading

Pattern grading: grading up sizes, grading down sizes

2 Be able to select and use tools, equipment and technology for pattern grading

Tools, equipment and technology: eg using hand tools and equipment as appropriate, hand shears, scissors, botches, hole punch, grading squares, software, hardware, digitizer, plotter, 2D/3D scanning

3 Be able to apply grading principles to basic blocks and pattern adaptations

Basic block: eg various blocks, bodice, skirt, sleeve, trouser, dress

Pattern adaptations which include given and selected design features: Princess line dress, gathered sleeve and cuff, skirt including pleats, bodice with collar, trousers with in-seam pockets

Grading grid

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all of the learning outcomes for the unit. The criteria for a pass grade describes the level of achievement required to pass this unit.

Grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
P1 describe the principles of pattern grading on a simple basic block (both up size and down size)	M1 consistently apply principles of pattern grading to a range of blocks to include a variety of size alternatives both up size and down size	D1 independently produce and present a comprehensive range of graded blocks and pattern adaptations, which demonstrate fluent practical skills and theoretical understanding.
P2 select and use tools, equipment and technology for pattern grading	M2 skilfully select and purposefully use tools, equipment and technology for pattern grading to effectively produce blocks and pattern adaptations.	
P3 apply pattern grading pattern principles to basic blocks and pattern adaptations.		

Essential guidance for tutors

Delivery

Tutors delivering this unit are expected to provide learners with an introduction to the basic principles of pattern grading. In the first instance, delivery will take the form of tutor demonstration followed by a series of practical exercises to build the learners' skills and understanding.

Learners should also have access to computer applications used for pattern grading and have the opportunity to produce work using this alternative method of technology.

Learners will be expected to produce a portfolio or reference folder of basic blocks and adaptations, which include a range of pattern grading examples to include both up sizes and down size. Learners will need to be supported through initial guidance and practical demonstrations of techniques and specialist equipment. Learners should then use this knowledge to develop personal responses by exploring a range of design adaptations.

Learners should have access to adequate space for producing full-scale patterns and pattern grading to a variety of sizes. If specific computer software applications are not available learners should have internet access so that they can research and observe current technology and new developments used within the fashion industry.

Tutors should consider integrating the delivery and assessment of this unit with other relevant fashion and clothing specialist units learners are taking as part of the program of study. In planning the delivery of assignment briefs tutors must ensure that a range of basic blocks (and a variety of design adaptations and features) are included in order to provide learners with the opportunity to develop and demonstrate practical skills and understanding.

Assessment

To achieve a **pass** grade, learners must achieve the three pass criteria listed on the grading grid.

For P1, learners must demonstrate the principles of pattern grading on a simple basic block by grading up and down at least one size.

For P2, learners are expected with guidance, to select and use appropriate tools, equipment and technology to complete P1. This may take the form of software applications. For P3 learners must appropriately grade a range of basic blocks and pattern adaptations using either manual methods or computer technology.

To achieve a **merit** grade, the learner must achieve all of the pass grade criteria **plus** the two merit grade criteria.

For M1, learners are expected to apply the principles of pattern grading to a variety of basic blocks and pattern adaptations. This will include a variety of sizes both up and down from the original block.

For M2, learners should produce work that is effective and shows skilful application of pattern grading techniques to effectively realise a series of blocks. It is anticipated that learners will present their work in a coherent manner so that the range of designs and sizes can be clearly identified.

To achieve a **distinction** grade, the learner must achieve all of the pass and merit grade criteria plus the one distinction grade criteria.

For D1, learners must independently produce and present a comprehensive range of graded blocks and pattern adaptations, which demonstrate a fluent standard of practical skills and theoretical understanding. This may take the form of a portfolio, which includes a wide range of graded blocks, fashion designs and pattern adaptations. The portfolio should be presented in a professional format and accompanied by evidence of learners' understanding of the grading process and techniques. It may also include evidence of both manual and computer applications if available. All patterns should be completed, correctly labelled and ready for use, highlighting a full range of sizes.

Links to National Occupational Standards, other BTEC units, other BTEC qualifications and other relevant units and qualifications

This unit builds on the skills and understanding developed in fashion specialist units, *Unit 79: Pattern Construction for Fashion and Clothing* and *Unit 80: Pattern Development for Fashion and Clothing* and could be assessed as an integrated assignment with either of these. Work produced for this unit can also be produced as part of an assignment with *Unit 83: CAD/CAM for the Fashion Industry*. The unit also provides underpinning knowledge for *Unit 86: Garment and Accessory Production*.

Essential resources

Centres need to provide adequate equipment and facilities for learners to grade full-scale patterns, for example studios or workshops, paper, rulers, grading squares, dress stands, pattern cutting tables (1-metre height). Learners will also need access to computer software applications for pattern cutting, for example Gerber, Lectra, Ormus and internet access.

Indicative reading for learners

Books

Aldrich W – *CAD in Clothing & Textiles* (Blackwell Science, 1994)

Bond T – *Computer-Aided Pattern Design & Product Development* (Blackwell, 2003)

Cooklin G – *Pattern Grading for Children's Clothes* (BSP Professional Books, 1991)

Cooklin G – *Pattern Grading for Women's Clothes* (BSP Professional Books, 1990)

Joseph-Armstrong H – *Pattern Making for Fashion Design, 4th Edition* (Prentice Hall, 2006)

Moore C L et al – *Concepts of Pattern Grading; Techniques for Manual and Computer Grading* (Fairchild Books, 2001)

Taylor P J and Shoben M M – *Grading for the Fashion Industry, 2nd Edition* (Thornes, 1992)

Key skills

Achievement of key skills is not a requirement of this qualification but it is encouraged. Suggestions of opportunities for the generation of Level 3 key skill evidence are given here. Tutors should check that learners have produced all the evidence required by part B of the key skills specifications when assessing this evidence. Learners may need to develop additional evidence elsewhere to fully meet the requirements of the key skills specifications.

Application of number Level 3	
When learners are:	They should be able to develop the following key skills evidence:
<ul style="list-style-type: none"> producing a standard size chart for basic body measurements and a variety of basic blocks grading a basic block up three sizes and down three sizes producing a set of graded patterns for a garment, highlighting the individual sizes together with a set of rules recording the process. 	<p>N3.1 Plan an activity and get relevant information from relevant sources.</p> <p>N3.2 Use this information to carry out multi-stage calculations to do with:</p> <ul style="list-style-type: none"> a amounts or sizes b scales or proportion c handling statistics d using formulae. <p>N3.3 Interpret the results of your calculations, present your findings and justify your methods.</p>

Communication Level 3	
When learners are:	They should be able to develop the following key skills evidence:
<ul style="list-style-type: none"> • participating in a group discussion on the techniques used and the implication of the methods within industry • exploring recent developments in the use, impact and potential of the internet and websites for the fashion industry • researching current developments in 2D/3D visualising, 2D/3D scanning technology and its implications within the fashion industry • exploring and evaluating computer technology used in commercial production. 	<p>C3.1a Take part in a group discussion.</p> <p>C3.1b Make a formal presentation of at least eight minutes using an image or other support material.</p> <p>C3.2 Read and synthesise information from at least two documents about the same subject. Each document must be a minimum of 1000 words long.</p> <p>C3.3 Write two different types of documents, each one giving different information about complex subjects. One document must be at least 1000 words long.</p>

Information and communication technology Level 3	
When learners are:	They should be able to develop the following key skills evidence:
<ul style="list-style-type: none"> researching information on current technology used within the fashion industry recording all findings in the form of a portfolio of evidence producing and presenting a report on your findings to incorporate text and image, text with number and image and number. 	<p>ICT3.1 Search for information, using different sources, and multiple search criteria in at least one case.</p> <p>ICT3.2 Enter and develop the information and derive new information.</p> <p>ICT3.3 Present combined information such as text with image, text with number, image with number.</p>
Improving own learning and performance Level 3	
When learners are:	They should be able to develop the following key skills evidence:
<ul style="list-style-type: none"> providing an action plan which highlights the grading process keeping an ongoing record of work undertaken presenting work undertaken in a portfolio with an ongoing record of progress and record of tutor feedback. 	<p>LP3.1 Set targets using information from appropriate people and plan how these will be met.</p> <p>LP3.2 Take responsibility for your learning, using your plan, to help meet targets and improve your performance.</p> <p>LP3.3 Review progress and establish evidence of your achievements.</p>