



B O A R D O F S T U D I E S
NEW SOUTH WALES

HSC Industrial Technology Marking Guidelines — Major Project

Major Project

HSC examination overview

The HSC examination for Industrial Technology consists of a written paper worth 40 marks and a major project worth 60 marks.

Component: Management Folio (20 marks)

This component of the major project should be a ‘documentary’ of the development of the project, including the original intent, research, planning, decisions, problems and their solution, and ongoing evaluation of their major project in the light of their original intent.

Assessment criteria

Design and management

- statement of intent
- research
- development of ideas
- selection and justification of materials, components, processes and other resources
- timeline plan – projected order of production and estimate of time allocation
- finance plan – projected cost of materials and services (if applicable)
- use of appropriate industrial processes and equipment
- evidence of safe working practices and OH&S issues

Workplace communication

Documentation of the major project from conception to completion including:

- evidence of ongoing evaluation
- appropriateness of design and/or design modification
- student’s evaluation of the major project and its relationship to the statement of intent
- evidence of a range of communication techniques
- evidence of a range of computer applications, eg word processing, spreadsheets, CAD, multimedia

Outcomes assessed: H1.2, H2.1, H3.1, H3.2, H3.3, H4.2, H4.3, H5.1, H5.2, H6.1, H6.2

MARKING GUIDELINES

Criteria	Marks
<p>Design and Management</p> <ul style="list-style-type: none"> • Clarifies the intent of the major project by explaining clearly what is to be achieved and why • Describes a wide range of research conducted, which is relevant to the intent of the major project • Analyses and evaluates the development and modification of the major project design ideas • Describes and justifies the selection of appropriate materials, components, processes, including industrial processes and equipment, and other resources in the development of the major project • Formulates a comprehensive and appropriate timeline and finance plan • Demonstrates the use of a wide range of appropriate safe working practices through photographic or written evidence <p>Workplace Communication</p> <ul style="list-style-type: none"> • Provides critical evaluation of the major project, including in relation to the statement of intent, throughout the development and production • Assesses the relationship between the design, and modifications if applicable, materials, components and processes in the development of the major project • Demonstrates a wide range of communication techniques, including computer applications appropriate to the development of the major project 	<p>17–20</p>

Criteria	Marks
<p>Design and Management</p> <ul style="list-style-type: none"> • Clarifies the intent of the major project by explaining what is to be achieved and why • Describes research conducted, most of which is relevant to the intent of the major project • Describes the development and modification of the major project design ideas • Describes the selection and use of appropriate materials, components, processes, including industrial processes and equipment, and other resources in the development of the major project • Formulates an appropriate timeline and finance plan • Demonstrates the use of some appropriate safe working practices through photographic or written evidence <p>Workplace Communication</p> <ul style="list-style-type: none"> • Provides ongoing documentation of the major project, including some evaluation in relation to the statement of intent, during the development and production • Includes details of the design, and modifications if applicable, materials, components and processes in the development of the major project • Demonstrates a range of communication techniques, including some computer applications, most of which are appropriate to the development of the major project <p>Candidates may achieve 13–16 marks as indicated above OR by satisfying a combination of the criteria for other mark ranges.</p>	13–16

Criteria	Marks
<p>Design and Management</p> <ul style="list-style-type: none"> • Gives a brief description of what is to be achieved and why • Describes research conducted, some of which is relevant to the intent of the major project • Describes some aspects of the development and modification of the major project design ideas • Lists materials, components, processes, including simple industrial processes and equipment, and other resources in the development of the major project • Proposes a basic timeline and finance plan for aspects of project production • Demonstrates the use of one or two safe working practices through photographic or written evidence <p>Workplace Communication</p> <ul style="list-style-type: none"> • Provides some ongoing documentation of the major project, including some reference to the statement of intent, during the development and/or production • Lists details of the design, and modifications if applicable, materials, components and processes in the development of the major project • Demonstrates some communication techniques, including limited computer applications, appropriate to the development of the major project <p>Candidates may achieve 9–12 marks as indicated above OR by satisfying a combination of the criteria for other mark ranges.</p>	<p>9–12</p>
<p>Design and Management</p> <ul style="list-style-type: none"> • Gives a brief or incomplete description of what is to be achieved • Minimal reference to appropriate research conducted • Briefly describes some aspect of the development and modification of the major project design ideas • Lists some of the materials, components, processes and other resources in the development of the major project, with little evidence of consideration of industrial processes and equipment • Timelines and finance plans are without sufficient detail • Refers to the use of basic safe working practices <p>Workplace Communication</p> <ul style="list-style-type: none"> • Provides minimal ongoing documentation of the major project, with little or no reference to the statement of intent, during the development and/or production • Lists some details of the design, materials, components and processes in the development of the major project • Demonstrates few communication techniques, including a computer application, which are appropriate to the development of the major project <p>Candidates may achieve 5–8 marks as indicated above OR by satisfying a combination of the criteria for other mark ranges.</p>	<p>5–8</p>

Criteria	Marks
<p>Design and Management</p> <ul style="list-style-type: none"> • Gives an incomplete description of what is to be achieved • Appropriate research not evident • Minimal description of the development and modification of the major project design ideas • Lists some of the materials, components, simple processes and other resources in the development of the major project, with no evidence of consideration of industrial processes and equipment • Timelines and finance plans are either not appropriate or not evident • Minimal reference to safe working practices <p>Workplace Communication</p> <ul style="list-style-type: none"> • Provides little or no ongoing documentation of the major project during the development and/or production • Minimal details of the design, materials, components and processes in the development of the major project • Minimal evidence of communication techniques, including computer applications, appropriate to the development of the major project <p>Candidates may achieve 1–4 marks as indicated above OR by satisfying a subset of the criteria for other mark ranges.</p>	<p>1–4</p>

Component: Production (40 marks)

The major project product provides practical evidence of the student's level of achievement in their chosen focus area. Of particular relevance will be the range and depth of skills and knowledge evident in choosing materials and technologies, executing processes and solving problems.

Assessment criteria

- quality of the product
- evidence of a range of skills
- degree of difficulty
- links between planning and production
- evidence of industrial processes
- use of appropriate materials
- use of industrial technologies
- evidence of solutions to problems in production

Outcomes assessed: H1.2, H2.1, H3.1, H3.2, H3.3, H4.1, H4.2, H4.3, H6.1, H6.2

MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none">• Demonstrates very high quality in all aspects of the major project production• A highly demanding project, with evidence of high quality in the application of a wide range of skills and techniques in the planning and production of the major project• Completed project relates closely to what was intended. Close links between actual construction processes, management and thorough research and planning are evident and clearly articulated• Competently applies and uses a wide range of appropriate industrial processes and materials in the production of the major project• Uses a range of appropriate industrial technologies in the production of the major project• Demonstrates and critically evaluates how solutions to problems in major project production were addressed	33–40

Criteria	Marks
<ul style="list-style-type: none"> • Demonstrates high quality in most aspects of the major project production • A project of substantial difficulty, with evidence of high quality in the application of most skills and techniques in the planning and production of the major project • Completed project relates to what was intended. Some links between actual construction processes, management and thorough research and planning are evident • Competently applies and uses appropriate industrial processes and materials in the production of the major project • Uses some appropriate industrial technologies in the production of the major project • Demonstrates and explains how solutions to some problems in major project production were addressed <p>Candidates may achieve 25–32 marks as indicated above OR by satisfying a combination of the criteria for other mark ranges.</p>	25–32
<ul style="list-style-type: none"> • Demonstrates substantial quality in most aspects of the major project production • A project of moderate difficulty, with evidence of high but inconsistent quality in the application of skills and techniques in the planning and production of the major project • Completed project relates loosely to what was intended. Minimal links between actual construction processes, management and thorough research and planning are evident • Applies and uses some industrial processes and a limited range of materials in the production of the major project • Uses some basic industrial technologies in the production of the major project • Demonstrates solutions to some problems in major project production <p>Candidates may achieve 17–24 marks as indicated above OR by satisfying a combination of the criteria for other mark ranges.</p>	17–24
<ul style="list-style-type: none"> • Demonstrates basic quality in most aspects of the major project production • A project of minimal difficulty, with evidence of basic quality in the application of skills and techniques in the planning and production of the major project • Links between planning and production are not clear • Applies and uses a limited range of common industrial processes and materials in the production of the major project • Uses a very limited range of basic industrial technologies in the production of the major project • Demonstrates partial solutions to some simple problems in major project production <p>Candidates may achieve 9–16 marks as indicated above OR by satisfying a combination of the criteria for other mark ranges.</p>	9–16

Criteria	Marks
<ul style="list-style-type: none">• Demonstrates poor quality in all aspects of the major project production• An undemanding project, with minimal or no evidence of quality in the application of skills and techniques in the planning and development of the major project• Links between planning and production are inappropriate or not evident• Applies basic processes and makes inappropriate use of materials in the production of the major project• Uses a very limited range of basic technologies in the production of the major project• Demonstrates inappropriate solutions to some simple problems in major project production <p>Candidates may achieve 1–8 marks as indicated above OR by satisfying a subset of the criteria for other mark ranges.</p>	1–8